CHAPTER III

A THEORETICAL FRAMEWORK FOR THE INTERACTIVE MODEL

> Every educational practice implies a concept of man and the world.
>
> (Freire, 1972a, p. 21)

Introduction

The purpose of this chapter is to extend the theoretical component of the study by developing a framework for the interactive model which includes the grounds upon which student participation in curriculum decision making may be justified. To achieve this the chapter examines the values and assumptions of "man and the world" implicit in the model and also identifies those which may support the roles, relationships and procedures described in Chapter II. The chapter also attempts to identify the relationship or orientation of these values and assumptions to theoretical positions in philosophy, psychology and sociology and in their appropriations in education.

Values and Assumptions about Students

Focus on the adolescent

It is assumed that the students who may be potential participants in the interactive model will be those attending secondary schools and likely to be between the ages of 12 to 18. The majority of students at this level may be characterized as adolescents although the group may also include some

pre-adolescents and adults at each end of the age range. A large volume of available literature clearly indicates that adolescence is "a period of growth and change in nearly all aspects of an individual's physical, emotional, mental and social life" (Harper and Collins, 1975, p.276). The most readily discernible and dramatic changes are those at the physical level, manifested in changes in height, weight and body proportions. At puberty, sex differences become pronounced with the growth of the primary sex organs and parallel growth of secondary sex characteristics. One can say then that, although there is variation in rates of development, adolescence is, at least in the physical sense, an empirically verifiable and universal phenomenon which begins with a pre-pubertal growth spurt and ends with the attainment of full physical maturity in terms of genetic potential.

It is not as easy, however, to define adolescence in psychological and social terms. The changes along these dimensions are much more gradual. There is variation among individuals in the rate and degree of change and there are differences across cultures in terms of social expectations which influence development. Perhaps differences in intellectual ability between adolescents and younger children are more evident than differences in emotional capacities or social abilities, but distinctions on all these dimensions between adolescents and adults are much more subtle. Some researchers maintain that adolescence is a psychological "state of mind, an attitude, a style of existence" (Hamachek, 1975, p. 179) characterized by dependence on parental approval, recognition and guidance and by striving for independence from the authority of adults.

From the social perspective adolescence has been defined in terms of social role and social expectations which tend to be age related. In Western societies one can usually marry without parental consent at age 16; drive a car, vote and drink in a bar

at age 18; one can be drafted in the U.S. at age 18; one is expected to be in secondary school at least by 15 and probably graduate at 18 or 19. Although adolescents are not usually expected to be self-supporting they are expected to be less financially dependent on parents and capable of earning pocket money and contributing physically to the upkeep of the home. They are expected to have a broader range of social contacts than children and a larger repertoire of social skills for relating to other people. Adolescents are expected to be more oriented towards peers than adults, to be less frivolous than children but not as responsible as adults.

Western societies accord adolescents a privileged position in terms of limited responsibility, protection and relative freedom. In this sense adolescence may be considered "the best years of life" because society provides a moratorium from adult responsibilities, and opportunity and time to integrate the various developing dimensions of the personality before making a commitment to a life-style, a set of values, a choice of occupation or a vocation.

At the same time, adolescence may be a "suspended state of supreme frustration" (Campbell, 1969, p.823) because in many ways it is, unlike adulthood, a period of waiting and anticipation of future rights and privileges, duties and responsibilities. Life can be confusing because many adolescents feel "in between", uncertain of where they belong as the following indicates:

> I hated it at school. When you're about fifteen you don't know whether to be good or bad or whether to be an adult or a child and you're in between and you don't know where you fit - I think that's why I hated it.
>
> (Commission of Inquiry into Poverty, 1978, p.46)

In this study, being an adolescent is interpreted to mean being at a stage of life when physical and sexual maturity is gradually being attained or completed, with intellectual, emotional and social development occurring concurrently. Arguments to justify the claim that adolescents should participate in curriculum development may be based on a number of assumptions and values about adolescents' capacities and the benefits of participation which may be linked to particular philosophical and psycho-social theories to be discussed in the following sections.

Students as persons: the philosophical perspective

From the philosophical perspective a supportive argument may be constructed on the grounds that adolescents are persons and thus should, on moral grounds, be accorded respectful treatment. In an educational context such treatment may be accorded by means of the interactive model. Even if it may be shown that adolescents are only in the process of becoming persons it may still be argued that it is in their interest to participate in curriculum decision making since participation can foster further personal development.

An argument based on the concept of authentic existence and the importance of choice for self-determination provides another philosophical source of justification.

a) Respect for persons. Respect for persons is implicit in those theories of education which emphasize freedom from domination, individual autonomy and personal development. It is implicit in Dewey's pragmatic educational theory and in the writings and practices of "progressive" educators in the 1920's and 1930's (Tanner and Tanner, 1975) and in Paulo Freire's theory of education. Dewey (1916) speaks of the immaturity of children in positive terms as "the ability to develop" and "the

power to grow" (p. 42). He criticizes traditional education on the grounds that its "center of gravity is outside the child"; it is anywhere and everywhere "except in the immediate instincts and activities of the child himself" (Dewey in Silberman, 1973, p.518). He sees a shift in the centre of gravity of progressive education to the "intensely active" life of the child. The characteristics of progressive education he commends are

> ... respect for individual capacities, interests and experience; enough external freedom and informality at least to enable teachers to become acquainted with children as they really are; respect for self-initiated and self-conducted learning; respect for activity as the stimulus and center of learning; and perhaps above all belief in social contact, communication and co-operation upon a normal human plane.
>
> (Dewey in Silberman, 1973, p.130)

Dewey emphasises that the aims of education are derived from the present needs, activities and changing concerns of the individuals involved, not externally derived or imposed. Externally imposed aims limit intelligence "because given ready-made, they must be imposed by some authority external to intelligence, leaving to the latter nothing but a mechanical choice of means" (Dewey, 1916, p.104).

Respect for persons is also implicit in Freire's view of education in which curriculum development relies directly on the contribution and participation of the people it is intended for. Educators cannot independently present their own programs but must search for them dialogically with the people. The point of departure for this program

> ... must always be with men in the 'here and now', which constitutes the situation within which they are submerged, from which they emerge, and in which they intervene. Only by starting from this situation which determines their perception of it - can they begin to move.
>
> (Freire, 1970b, p.57)

It may be argued that a fundamental characteristic of adolescents is their being persons of intrinsic value and as such deserving respect (Downie and Telfer, 1969). This argument, based on the concept of person (as having intrinsic value) and on a commitment to the moral principle of respect for persons, may be the basis of a justification for the proposed role of students in the interactive model.

The substance and form of this argument is as follows. Human beings are persons and thus have intrinsic value. As persons they ought to be treated with respect. Respect involves treatment of others in ways which do not impair, hinder or prevent the expression of their capacities as persons. Adolescent students are persons and thus have intrinsic value and ought to be treated with respect. Respectful treatment is accorded them in schools by the opportunity to participate in decision making about their own education. Decision making about the curriculum is a central component of education, therefore students ought to participate in it.

The central premises in this argument are largely based on the arguments of Downie and Telfer (1969) who base their work on Kant's moral philosophy as developed in his Groundwork of the Metaphysic of Morals. Downie and Telfer refer to Kant's thesis in defining what is distinct and valuable about human beings and what it means to say that human beings are persons.

Kant held that the distinctive aspect of human beings is their capacity for theoretical and practical reasoning, that is, for thinking and acting rationally. Practical reasoning, or rational will, involves being "self-determining" and "rule-following". To be self-determining means having the ability to choose for oneself, to formulate purposes, plans and policies of one's own and to carry them out without relying unduly on the help of others. To be rule-following means adopting rules or norms to govern one's actions and accepting

them to be as binding on oneself as on others. Being a person therefore means a mode of being - that is, being able to reason and being self-determining and rule-following. These characteristics indicate a transcending quality in being a person in the sense of being outwardly directed towards others, having the power to transcend the limitations of the physical and social environments by reflecting upon them, by inventing alternative possibilities, and by shaping the environment. The validity of conceptualizing human beings in this way derives from the awareness of individuals that they and others do have these characteristics; from a commitment to a rational moral order in human behaviour and social relationships; and from a belief that without such a concept of rational living, social and moral life - the most characteristically human activity - "would be pointless or at least incoherent and inconsistent" (Bailey, 1975, p. 68).

Recognition that human beings as persons have intrinsic value is demonstrated by respect which is a moral attitude and principle of action. That is, respect for persons is a way of regarding them which gives rise to certain ways of treating them (Downie and Telfer, 1969, p. 37). Bailey (1975) expresses this view with an analogy:

> ... respect for persons, or basic concern for others, describes both the recognition of persons and the treatment of them as persons. In this sense it is like respecting a bone china cup by carrying it carefully ... that is, we respect things and persons by treating them according to basic conceptions of what they are, according to attributes they necessarily embody if conceived as such.
>
> (p. 98)

Kant advocates that we treat others as "ends" not as "means", or treat the aims they pursue in the exercise of their self-determination as if they were our own. In other words

> ... to make his ends one's own ... to take into account in all one's dealings with him that he too is self-determining and rule following.
>
> (Downie and Telfer, 1969, p.37)

This requires having a positive "concern" for others, or having "active sympathy" for them. "Active sympathy" is a stronger feeling than empathy. It is a "creative emotional response" (p. 27) which motivates a person to make another's aims one's own.

Downie and Telfer maintain that respect for persons is a fundamental moral attitude and "all other moral principles and attitudes are to be explained in terms of it" (p.33). These include the principles of equality and liberty. Respect for persons is, therefore, the basis of both social and private morality. As directed towards others it is a principle of social morality; as directed towards oneself, it is self-respect, or private morality, resulting from a "self-conscious awareness of oneself as a person" (p. 79)

To treat human beings as though they were incapable of thinking and acting rationally would be to fail to respect them as persons. One should in no way impair, prevent or obstruct others from formulating plans and policies of their own and from executing them. To do so "may well be a subtle way of eroding an individual's nature as a person" (Downie and Telfer, 1969, p. 21).

To the extent that students are developed as persons, support for providing them opportunities for participation in decision making about their education is based on the moral claim of treating them with respect. Consultation is not an adequate substitute for participation in decision making. To paraphrase Scrimshaw (1975), a teacher consulting the students before deciding what she is going to do is not recognizing their right to be treated as free agents. It is rather to see them as sources of data for her decisions, not as persons capable of making their own.

One may argue that human beings at birth are not fully persons but possess the potential to <u>become</u> persons as their capacities for self-determination develop. Children are perceived in this way - that is, as individuals whose potentiality is substantially unactualized (Downie and Telfer, 1969, p. 35). They are considered to have some rights as persons but their capacity to judge the consequences of their actions, to apply appropriate moral standards to their own behaviour and to that of others is perceived to be limited. Thus, in an educational context, a certain degree of paternalism (restriction on freedom as decisions are made by others on one's behalf) is seen to be justified with respect to children if it protects them "from self-inflicted harm" or if it directs them "towards their own good or interests" (p. 109). Downie and Telfer do not comment on the status of adolescents as persons except to say that "the degree of this limitation of children's rights depends on the age of the child" (p. 114).

It may be argued, however, that becoming a person involves a gradual developmental process and age seems to be an unreliable criterion for defining personhood and justifiable paternalism. Hobson (1984) maintains that paternalism is justified when a person is unable to make a rational decision about his or her best interests or when he or she is ignorant of relevant facts and where serious harm to the person is prevented by paternalistic action (p.297). Psychological theories of intellectual and moral development suggest that adolescents are sufficiently developed to think and act in a rational manner as persons. However, there is variation among individuals in the degree of attainment at given age levels because of differences in the rate of development. McNally (1973) found that with respect to intellectual development there are many "transitional" thinkers in relation to reasoning at the concrete and abstract levels, particularly in the early secondary grades. Therefore among a group of individuals the teacher can expect variations in reasoning capacities but not a lack of

intellectual capacity. Some adolescents may not qualify as persons in the fullest sense of the term but are in the process of becoming persons and to deny them the opportunity to be self-determining is to obstruct their further development. In relation to the "relevant facts", the interactive model includes the teacher's input, namely, to provide information and to initiate critical reflection in relation to the question of "relevance". Consequently, there will be no serious harm inflicted on the students.

Immaturity may be claimed as the justification for paternalism (Strike, 1982), but adolescents certainly reach physical maturity earlier than they did in previous generations (Grinder, 1978) and the psycho-social limits of adolescents' capacities is an open question. Strike (1982) makes a useful distinction between understanding the consequence of one's actions and understanding their significance, but he does not unequivocally justify paternalism on this basis. He suggests that adolescents could be judged immature in some cases, giving as an example that they may know that sex can lead to pregnancy but fail to understand the responsibilities involved in parenthood or abortion. They may understand the consequences of their acts but not grasp their full significance and "thereby do serious but subtle damage to themselves and others" (p. 128). This may be true, unfortunately, but it may also apply to adults with whom paternalistic intervention is not justified. Strike himself notes that such arguments can also be easily abused and used to justify slavery, oppression, and the denial of civil rights.

Justification of paternalism may be argued on the grounds that students are "novices" with respect to specific areas of knowledge or competence where decisions of an expert are required. The paternalistic intervention of the teacher (as expert) is deemed justifiable where subject matter expertise is required. In accepting this argument and the previous one,

schools may, in effect, put adolescents in a kind of "double jeopardy" (Strike, 1982) by treating them as both novices with respect to the knowledge to be learned and as immature persons. Strike's answer to this difficulty is to limit paternalism to decisions in the academic areas and to treat persons as novices, not as immature, only in relation to the "official" content of the curriculum. However, this solution proves to be unsatisfactory when he suggests that even in relation to subject matter expertise paternalism is more applicable to those subject areas which have a more tightly organized conceptual structure. Thus the exercise of paternalism may depend on how individual teachers perceive the structure of the subject matter. Furthermore, Strike would not apply paternalism to any "extra-curricular" activities even though these may be educational and may require expertise (e.g. producing a film or a newspaper or running for political office). This makes the context for justifiable paternalism rather arbitrary.

In a justifiably paternalistic relationship, e.g. the prevention of serious harm to someone, the person making the decision on behalf of another has an obligation to act in the interest and well-being of the other. In the educational context the paternalistic teacher tries to decide what is in the best interest of the student. In support of the interactive model it may be argued that it is in the students' best interests to develop their potential to make their own decisions - that is, to be self-determining. It is in their interest to reject paternalism and to obtain the opportunity to participate in curriculum decision making in order to develop as persons. As Mosher and Sullivan (1978) note, "Education best serves adolescents if it actively supports them in making the critical developmental transition from youth to adult" (pp. 84-85).

b) Authentic choice and self-determination. The concept of authentic existence and the importance of choice are the basis of another line of argument which corroborates the significance

of self-determination and provides further support for the role of the student in the interactive model. The philosophical perspective is that of existential phenomenology rather than moral philosophy.

It is in Heidegger's Being and Time (1962) that man's being and condition in the perspective of existential phenomenology are most fully described. For Heidegger, the horizons of human existence are constituted by the world of the transcendental self (i.e. the self capable of reflecting upon itself), the external social world of other people, and the world of the surrounding environment. Human existence is in relation to these three worlds which are always present in immediate experience.

Human beings are considered unique because they can and do reflect upon the nature of their being and existence. To know and to be are considered one and the same. They are also unique for a more fundamental reason, that of having a pre-reflective awareness of their being, attained by the direct experience of their own concrete existence. They are also aware of the temporal and transcendental character of their being, that they exist in time, possessing a past and a future as long as they live, knowing that they are at present and can be in the future. Indeed the characteristic mode of being for youth is seen to be a "temporal structure" which is "future-oriented and future-laden" (Vandenberg, 1971, p. 48).

The recognition that human existence includes being in a social world of other people and in the physical world of the surrounding environment entails a recognition that human existence is a "being with" or a "being in relation" to a world not of one's own choosing, a world into which one is, in a sense, "thrown" (Troutner, 1969). This being thrown aspect of one's existence circumscribes one's choices and also raises the question of what will be the nature of one's relation with

others, or one's being-with-others. The relations can be "both a sustaining force and an easy way to escape from authentic living" (Troutner, 1974, p. 31). One has a choice over how one will live this relation. Troutner (1969) eloquently describes the tension involved:

> I had not chosen my parents, my culture or my particular environment; however, already "being-there" I could (and I can) choose to be taken over by the world of the They, or I could (and I can) choose to become myself. Thrown into world, I can choose I can be my own possibilities, or I can choose to disperse myself in the multifarious concerns of the world. Both these ways of being, however, are always potential constituent elements of "Who I am". I can rid myself of neither one. In other words, I can never completely allow myself to be taken over by the "They" ... nor can I ever completely realize a singular, resolute "I" ... mode of being. This tension between the two in fact, is the very stuff of existence.
>
> (p. 145)

Choice is important for the development of the self, for one's becoming. It is "a projection which can be lived authentically or inauthentically" (Troutner, 1974, p. 40). One can choose for oneself even if on some occasions the choice may not be the wisest one in terms of the consequences, or one can let others and circumstances determine one's choices.

Bonnet (1978) argues that choice is authentic if it is "truly one's own" (p.54), if it is "in some sense an expression of one's true self" (p.55). Authentic thought and action depend on a level of self-awareness where one's own being is of concern or where caring for one's own being is an issue for the self. Authentic choice depends on the recognition that choice means:

> ... <u>being-one-possibility-at-the-expense-of-others</u> .... It involves an acknowledgment of that to which one is more truly committed and the responsibility of such commitment. It is therefore a form of revelation: in such choice the call of conscience is heard and the self is disclosed through making its values concrete.
>
> (Bonnet, 1978, p. 58)

Through choosing (and by reflecting on one's choices) it is possible to attain existential self-knowledge. Choice is a mode of self-expression and the view that we come to know ourselves through self-expression is stressed by many authors. Witkin (1977), for example, maintains that "Sensing known is sensing expressed" (p. 20). Vygotsky (1962) holds that "thought is not merely expressed in words; it comes into existence through them" (p. 125). His quotation from a Russian poem reinforces this view:

> I have forgotten the word I intended to say, and my thought, unembodied, returns to the realm of shadows.
>
> (p. 119)

Participation in decision making may allow students to become more aware of themselves as persons since more of the self may be involved.

Living life <u>in</u>authentically means becoming the person or thing <u>others</u> want one to be, allowing oneself to be manipulated, controlled or conditioned, and believing that this is the nature of human existence.

Providing or denying students the opportunity to participate in curriculum decision making may be seen as providing an opportunity for authentic choice and self-determination or obstructing the taking of responsibility for becoming and for authentic being, for it is "Only by choosing

according to what one presently believes in can one leave open the real possibility for oneself of developing one's authenticity" (Bonnet, 1978, p. 59).

Future possibilities may depend on present choices and thus there are attendant risks in choosing and courage is required. The teacher needs to realize that choosing is a responsibility that one must accept for authentic living and that a commitment to this view does not exclude a role for her in providing support and assistance by helping students anticipate the consequences of their choices and the significance of living with them.

Students as persons: the psycho-social perspective

Additional support for viewing adolescents as persons and arguments indicating the benefits of participation are available in psychological and psycho-social theories of development. These suggest that individual persons are unique and thus the principle of respect for persons includes respect for individual differences. This framework also suggests what might be called the developmental themes of adolescence: the development of logical and abstract thought, concern with social and moral values and relationships, emotional commitment and the development of a sense of identity. Arguments in relation to these themes suggest that the use of the interactive model can contribute to development in positive ways.

"Development" is used here to mean becoming, actualizing or exercising one's potentiality, processes which are manifested in qualitative changes in thinking and behaviour towards increasing complexity and integration in the context of interacting with the environment. This meaning is less concerned with development as progress and more with the way Burns (1977) uses the term to mean a multifaceted phenomenon

linked with liberation which enables individuals (as well as nations) to become able to choose and to work for their own futures, that is, to become self-determining.

a) Individual differences. The argument for self-determination finds support in the belief in the uniqueness of individuals and the value of individual diversity which is implicit in the interactive model. The model enables and encourages the expression of individual differences. The significance of this value and the importance of accommodating individual differences is strongly argued in the literature on learning styles (Mann et al., 1970; Stern, 1970; Atkinson, 1981) and on multicultural and multiethnic education (Sherwood, 1981; Smolicz, 1979).

The basis of individual uniqueness is biological and psycho-social. At the biological level Tyler (1978) notes that:

> The more we have discovered the way genetic processes work, the clearer it has become that each individual represents a unique selection from almost an infinite number of possible individuals (p. 43). ... Each newborn child is unique in many ways. Because there is no one else who started with the same sequence of nucleotides in the DNA molecules of which his or her chromosomes are constituted, the individual's blood composition, fingerprints, inner organs, skin and behaviour are not exactly like anyone else.
>
> (p. 54).

We do not as yet know enough about the extent to which some inclinations, preferences or tendencies are genetically determined. Barkow (1980), for example, reports on studies of groups of infants from different ethnic origins, some as young as 75 hours, which document observable temperamental differences among the groups. He suggests that "Cultures may be thought

of as patterned expressions of human psychological processes" (1980, p. 286).

From the psychological perspective we know that individuals have different attitudes, interests, values and prejudices which affect perception and contribute to individuality. At any point in his or her life an individual confronts a new experience with his or her unique personal history which is expressed in ways of thinking, feeling, and communicating. The interactive model attempts to accommodate individual differences rather than blur them.

b) Development of logical and abstract thought. The interactive model may provide the kind of experiences which lead to intellectual development when this is defined in terms of cognitive development theory. This claim is based on the significance of the social environment and social interaction in intellectual development in the context of this theory.

Cognitive development theory, as formulated by Piaget, maintains that individuals at birth are endowed with certain mental structures or ways of intellectual functioning which enable them to respond to the environment (Piaget, 1963). The existence of these structures has been inferred from observation of the activities of infants, children and adolescents.

The mental structures consist of organized and interrelated "schemata" which can be interpreted as types of mental programs or strategies that an individual possesses for processing information from the environment. Piaget maintains that as one matures physically and interacts with the external environment these schemata undergo qualitative changes becoming more complex and differentiated yet always organized and integrated or in a state of equilibrium. These qualitative changes define specific stages in the development of cognitive structures.

A person adapts to new experiences by means of complementary processes of assimilation and accommodation which are designated by Piaget as "adaptation", a fundamental concept in his theory. The process which seeks to establish equilibrium between accommodation and assimilation is designated as "equilibration" (Piaget, 1964). Piaget maintains that this process occurs in a step-wise fashion or in stages which are invariant across individuals, each stage being a necessary foundation for the next. In other words, there is a hierarchical order in development. In Piaget's view the factors which contribute to development from one stage to the next are equilibration, maturation, physical experience and social interaction.

Maturation or natural physical development (as of the nervous system) is considered a contributing factor because development progresses in a fixed order of stages. However, maturation "can do no more than determine the totality of possibilities and impossibilities at a given stage"; what is required "for the realization of these possibilities" is a particular physical and social environment (Inhelder and Piaget, 1958, p. 337). The physical environment provides the child with objects and stimuli to interact with - that is, physical experience. As the child performs physical actions on these objects, and as these actions are internalized, thought is said to develop. Knowledge originates, therefore, in the interaction between individuals and their environments.

The social environment is said to move "a child from his egocentric individualized modes of thought to more sociocentric, consensually validated modes of thinking" (Sullivan, 1967, p.11). Piaget (1964) uses the term "egocentric" in reference to cognitive behaviour at different levels of development to indicate a lack of differentiation. For example, young children may regard objects only in terms of their relationship to themselves, or be concerned only with those properties which

they can relate to themselves, e.g. taste. Sullivan maintains that "The egocentric child judges an act on the basis of its consequences whereas the more sociocentric child goes beyond the consequences of an act to appreciate intentions" (1967, p. 11). It is not that the child does not want to think in this way, as an adult might not, rather it is the case that he or she cannot. To develop beyond egocentrism the child has to develop more complex cognitive structures that allow for a new understanding of both physical and social phenomena. Elkind (1970) maintains that growth occurs in the direction of greater reciprocity and relativity to the extent that as individuals develop "they become increasingly able to see the world from the standpoint of others" and to recognize not just the properties of things but the relations between them (pp. 48-49).

Piaget claims that:

> Society, even more, in a sense , than the physical environment changes the very structure of the individual because it not only compels him to recognize facts, but also provides him with a ready-made system of signs which modify his thought; it presents him with new values and it imposes on him an infinite series of obligations. It is therefore quite evident that social life affects intelligence through the three media of language (signs), the content of interaction (intellectual values) and rules imposed on thought (collective logical or pre-logical norms).
>
> (Piaget, 1963, p. 156)

In Siegels's (1969) view, the significance of the social environment is that it provides a certain amount of stress which "induces cognitive transformation" (p. 469). This occurs as others challenge an individual's views, ideas or explanations and provide alternatives of their own inducing cognitive disequilibrium and subsequent adaptation. In the classroom,

stress can come in the form of challenge from the teacher and classmates. Recent research on cognitive development in a group context (Doise, 1978) corroborates the view that social interaction may be an important factor in cognitive growth.

The thought processes of adolescents differ in important respects from those of younger children (Inhelder and Piaget, 1958). The stage of formal operations develops gradually, roughly between the ages of 12 and 16. The term "formal" focuses attention on the form of thinking which is progressing from concrete to abstract. At the formal stage, the individual develops the ability to mentally manipulate assertions and propositions independent of their concrete referents. At the level of concrete operations (between ages 7 and 12) thinking is related to objects and not to verbally stated hypotheses as it is at the formal stage. The concrete operational child, unlike the adolescent, does not possess the ability to explore abstract relations between objects independent of concrete content. In other words, the logic of the concrete operational child is dominated by direct personal experience, while the adolescent has the capacity to think abstractly or reflectively, can follow the form of an argument without needing the concrete materials making up the substance of the argument, and can deal with possible or hypothetical relations between ideas. Thinking is no longer bound by the actual features of a situation; it is free to explore and deal with new and abstract relationships or to consider hypotheses which may or may not be true and to work out their consequences. All the variables in a problem can be systematically isolated and dealt with in all possible combinations without concrete referents. Adolescents can construct ideals or contrary-to-fact situations. They can deal with the possible as well as the actual which means the future may now be as much of a reality as the present, a reality which can be vividly conceptualized.

Another aspect of this stage is the transition from subjective to "objective" thought. Objective thought in Piaget's theory is characterized by the ability to see things from different points of view rather than just one's own; from the point of view of another person, or from the point of specific conceptual frameworks which one may or may not agree with. Adolescents can also contemplate their own thought as an object. They can introspect and reflect upon their mental and personality traits.

Piaget has not spelled out the implications of his cognitive theory for social development and behaviour but this has been attempted by other psychologists. Elkind (1970) maintains that the adolescent's mental system which "frees the young person from the egocentrism of childhood entangles him in a new form of egocentrism characteristic of adolescence" (p.66). Although adolescents are capable of conceiving the thought of others they may fail to differentiate between the objects of others' thoughts and their own. One consequence of this is that they may assume that other people are just as concerned about their behaviour, ideas and feelings as they themselves are. They may have an "imaginary audience" which responds to them in an anticipated manner; e.g. if they are critical of themselves they expect their imaginary audience will be too; if they admire themselves they may assume that others do too.

This concern for the self is due to the physical changes that occur during adolescence and to the ability of adolescents to think objectively and to see themselves from the "outside". The ability to construct ideals and to reason about contrary-to-fact situations enables them to conceive of an ideal self and in contrast to the ideal, their own perceived selves may fall far short. They may, therefore, be very keenly aware of their own limitations and punish themselves for physical, social and academic shortcomings. Extreme dissatisfaction with oneself may, of course, lead to depression.

Because they have the capacity to deal with all possible factors relating to a problem or an issue and see a whole host of alternatives, adolescents may feel quite confident about the independence of their thinking. Decision making, however, may be a problem because the intellectual capacity is not supported with experience. Consequently, independence in thought may be accompanied by insecurity in decision making. The fact that they can conceive alternatives and construct ideals may also lead to dissatisfaction with what presently exists. Elkind sees much of the characteristic conflict between adolescents and their parents and other adults deriving at least in part "from this new capacity to construct ideal situations" (p. 79). Such conflict, coupled with the difficulty of making decisions, may make adolescents rely increasingly on the peer group for support in decision making.

Adolescents may also believe that because ideas can be conceived they can also be effortlessly realized. They may expend a great amount of energy defending their point of view, seeming to be immune to evidence which does not fit in with it, yet reluctant to make a personal effort or sacrifice to bring their ideas to fruition, as if the act of conceiving them was sufficient to achieve them. This form of egocentrism is apparently overcome

> ... by a twofold transformation. On the cognitive plane it is overcome by the gradual differentiation between his own preoccupations and the thoughts of others, while on the plane of affectivity it is overcome by a gradual integration of the feelings of others with his own emotions.
>
> (Elkind, 1970, p. 71)

It appears to be social interaction which mediates this complex transformation (Borke, 1978; Hoffman, 1975; Van Lieshout <u>et al</u>., 1975; Yarrow <u>et al</u>., 1973; Flavell, 1968;

Moreno, 1953) and since the interactive model is based on social interaction it is the kind of milieu which is likely to induce the desired changes.

Because of variation in the rate of development of individuals, and because of differences in the kind of reasoning they employ, effective communication in the classroom helps the teacher determine the type of challenge or support an individual may require. Therefore a process which may enhance communication between teacher and students as the interactive model may do, could provide the conditions leading to intellectual growth to the formal stage and to social and emotional growth away from egocentrism. Relationships based on collaboration and dialogue support the development of the ability to see things from the perspective of others, that is, to move towards the stage of formal operations. The teacher's participation provides her with the opportunity to note the content and form of discussions and to develop a greater empathy for her students. Piaget himself used the technique of "empathic inference" to interpret how children experienced the world and behaved as they did (Elkind, 1970, p. 38). If the teacher develops a high level of empathy for her pupils she will be in a better position to inject new ideas and materials at the right time when they are most needed to stimulate and challenge the pupils' thinking.

Since the pupils have a say in determining the content of the learning activities and the methods of inquiry, their own interests are more likely to be accommodated. This provision is significant because adolescents are increasingly capable of seeing issues from a variety of perspectives and they are less likely to be satisfied with the teacher's justification of a compulsory curriculum as younger children might be. They can conceive of more personally relevant justification for the choice of content and methods of inquiry than the constraint of an examination. An interactive approach does not put the teacher in the painful position of trying to devise strategies

for motivating reluctant pupils to take an interest in the curriculum. The adolescents' developing capacities for abstract thinking and reflection are put to work in the activity of planning their own projects. Thought is not divorced from action but harnessed in personally relevant and purposeful activity.

In the process of planning and executing their plans the pupils' thinking is further clarified. The execution of plans is likely to involve compromise, consideration of the feasibility and the practicality of plans. This may also contribute to the decline of unrealistic idealism which Elkind maintains comes to an end as the adolescent "begins to engage in productive [work] and he reassesses the adult world, as well as his own limitations and becomes more accepting of both" (1970, p. 80). Grandiose plans may be scaled down as idealism is sobered by experience and as personal and situational limitations become obvious. In the process the students may acquire a more realistic understanding of the skills and knowledge required to execute a plan of action and may be more motivated to acquire both. They may also become more appreciative of the assistance the teacher can provide and recognize to what extent plans are dependent on the constraints of a situation and the people involved. Insight gained from such experiences may be transferred to the interrelationships of problems in society.

c) Concern with social and moral values. By the time of adolescence a person already possesses a considerable store of knowledge and values in the social and moral realms which influence his or her concerns and interests in school. Theories about how one acquires values indicate the need for providing adolescents opportunities to act on their values in order to clarify their consequences and the strength of their commitments.

A value may be defined as a thing, phenomenon or behaviour which has worth or importance for a person or a group (Krathwohl et al., 1971, p. 1239). Values have a cognitive and an emotional component; that is, they are concepts which can be compared, contrasted and analysed and to which we attach feelings (e.g. sympathy, disgust, remorse, admiration). They pertain to a broad range of human activities and are embodied in social institutions such as the family, the church and the legal, political, economic and educational systems. Thus one can speak of economic values such as progress, production, free enterprise; aesthetic values such as unity, harmony, symmetry; social values such as responsibility, cooperation, open communication; and moral/ethical values such as duty, tolerance, justice and freedom.

Values are learned through the process of socialization which begins in the home through the interaction of children with parents and family members and continues beyond through their interaction with peers and members of other social institutions. Adolescence is a time for the testing of learned values and of values tentatively held. Krathwohl et al. (1971) maintain that the process involves: first, accepting a value emotionally to the extent that one is willing to be identified with it; second, indicating preferences for a value by pursuing or seeking it out; and third, committing oneself to a value to the extent that one "acts to further the thing valued ... to extend the possibility of his developing it, to deepen his involvement with it ... to convince others" (p. 149). The complete "internalization" of a value to the extent that it becomes an integral part of one's personality involves the continuous modification and reorganization of values "into some kind of internally consistent system" (p. 165). Such reorganization and modification are prompted by social interaction.

Adolescence is also a time when social and moral values and interpersonal relationships are of intense concern (Bull, 1969; McPhail et al., 1972). Roberts (1975) speaks of adolescence as the "sociability stage" and the task of adolescents as one of developing their relationships with others, otherwise this need may remain unfilled and may interfere with further development. McPhail (1972) speaks of adolescence as the age of social experiment, meaning that individuals experiment with attitudes and behaviours in the course of their social development and learn from the reactions of individuals or groups (p. 128). Because adolescents encounter and can also conceive of values different from those held by their families, it becomes important for them to test the personal effects of new values. They may test them by temporarily adopting them, experimenting with them and judging the reactions of others. Values which have been acquired unconsciously over long periods of time may be challenged by the peer group or by teachers and other adults. Such challenges can lead to greater awareness of the values held, or to reappraisal or reorganization of them. In this process old values may be rejected, new ones adopted or a greater commitment made to those already held. This process does not, however, always occur smoothly and without uncertainty or confusion because there are many conflicting values in society which an adolescent may recognize.

The interactive model encourages an active social role for students by providing opportunity for decision making and for taking responsibility, rather than being passive or learning helplessness. The process of decision making involves confronting values on which decisions are to be based because questions of value will be raised in selecting curriculum content and methods of inquiry. The planning process involves students in comparing ideas, hammering out differences in point of view to reach some agreement about how to proceed and comparing their actions with those of others. To work

co-operatively with others requires the learning of social skills and developing trust in and reliance on others. The responsibility for judging what is right, appropriate, worthwhile and valid is shared by the students rather than left to the teacher or to an unseen authority. In dealing with such value-issues the students are directly involved in activities which relate to their social development.

There are other arguments in support of the claim that the use of the interactive model creates a psycho-social environment which supports social development. It is recognized that schools unavoidably contribute to the development of values since it is impossible to devise a system of education which does not embody and transmit in direct and indirect ways a core of values which reflects either the values that exist in society or those that one might wish would exist. Purpel and Ryan (1976) argue that "There is in effect really no point in debating whether there should be moral education in the schools" (p. 44) because interpersonal relationships, the school's rules and authority structures, the peer group and the subjects included in the curriculum all raise moral issues or embody and teach moral values.

One can distinguish between the direct effects or the intended outcomes of implementing a particular model of education and the indirect or "nurturant" effects of living in an environment created by the model (Joyce and Weil, 1980). The nurturant effects may be due to the social organization of the school, the criteria used in the selection of subject matter, the expectations of the teacher, the rewards and punishments meted out and the criteria used to justify them, the rules of conduct enforced and the interpersonal relationships stressed. These "structural" aspects of the school exemplify intellectual, social and moral principles which give meaning to the activities they frame (Dreeben, 1968). The implication is that if students are consistently exposed to the norms displayed by these

structures, they will develop commitment to them. The structural organization of the classroom therefore has a social and moral effect; it is a source of indirect social and moral education.

The social values implicit in the interactive model are respect for persons, interdependence, collaboration and negotiation. These values are nurtured in the students through the experience of living in the environment created by the model. The model contributes to students' social development if it is assumed that the greater the degree of social participation and interaction allowed, the greater the free exchange of ideas, criticism and development of students' understanding of the values, beliefs and attitudes regulating social relationships.

In the context of the interactive model the content of the curriculum will also reflect students' concerns about social and moral issues in interpersonal relationships which may then become the focus of study and the topic of projects allowing for a more direct sort of social education (Elliot and Pring, 1975).

The interactive model may also provide the appropriate context for moral development for which social interaction seems to be an essential ingredient. According to Piaget (1932) moral development, from a morality of constraint by rules to a morality of co-operation, is most likely to occur in an environment characterized by co-operative activity and mutual respect. Kohlberg (1969) also maintains moral development is stimulated by social interaction and discussion. Such processes are stimulating because they challenge people to see situations from the point of view of others whose claims or arguments may be just as relevant as one's own and even superior.

Piaget's theory of how children's notions about morality develop maintains that a rule-bound morality in early childhood (which he termed "heteronomous") develops from children's

relationship with adults. Through extensive interaction with others their understanding of rules changes. A morality of co-operation (which is more autonomous than the earlier morality) begins to develop to replace the morality of constraint by rules. Children gradually become aware that other persons act and think in ways similar to their own. This leads them to acquire a sense of equality with others and they come to regard rules as agreements made to ensure that everyone will act in similar ways.

While Piaget does not devote a great deal of time to the question of how to achieve co-operation between peers, he does, nevertheless, suggest that in order to build the appropriate environment of respect and co-operation adult authority has to be gradually lessened. If this is not done then the early heteronomous behaviour, where the child feels constrained to obey rules and to associate misdeeds with pain rather than with loss of group solidarity, is likely to persist. What is needed then is an environment which brings children together in co-operative endeavours, and the interactive model attempts to do this.

Piaget's work on children's moral judgement did not extend beyond the age of twelve and he did not work out in detail stages of moral judgement as he did with cognitive development. This has been done by Kohlberg who bases his theory on Piaget's early work and theory of cognitive development.

In Kohlberg's (1969) theory, moral development occurs in six stages identifiable by a characteristic way of thinking about moral issues. At each stage a person approaches a moral issue in terms of certain values and reasons. The explanation of movement through the stages relies on the assumption that cognitive structures are reorganized through interaction with features of the social environment. When a person experiences

conflict or dissatisfaction with modes of thinking about a moral issue there is pressure to resolve the conflict in favour of a reasoning process which is consistent with a higher level of reasoning.

Research also suggests that moral development is age-related (Hersh _et al._, 1979). Adolescents are likely to reason at stages 2, 3 and 4. For early adolescents (11 and 12 year olds)

> ... moral issues usually consist of conflicts surrounding friends, family and other individuals or small groups close to them. ... Trust and loyalty are primary preoccupations ... and determine the right conduct and fair decisions.
>
> (Hersh _et al._, 1979, p. 135)

Late adolescents (16-18 year olds) "are very much interested in the generic moral dimensions of morality, that is, notions of justice ... the question of what is right" (p.137). At these stages (2, 3 and 4), adolescents value friendships, living up to the expectations of family and friends, and fulfilling duties. They understand that concepts of duty and obligation are based on reciprocal rights. The reasons advanced for morally just behaviour would likely include living up to the expectations of the group and society and not merely pursuing self-interest. Particularly at stage 4, respect for the law as a value would likely emerge and behaviour justified in terms of laws which would be recognized as human products accommodating and protecting competing interests (Adelson _et al._, 1969).

The importance of reasoning in moral judgement is recognized and emphasized by other writers too (Scriven, 1975; Wilson, 1973; Scheffler 1976). However, the view that moral conduct depends not just on reasoning is also advanced (Holmes, 1976). Knowledge of what constitutes moral behaviour is deemed important, but Holmes is quick to add that knowledge is not enough as evident by the offences of delinquents which

are not generally attributable to ignorance of moral values. Out of certain motives people offend against known moral obligations and it is the tension between "is" and "ought" which is the essence of an individual's moral growth (Holmes, 1976, p. 7).

Several writers maintain that moral conduct is directed by knowledge of the good, the will, one's attitudes and emotions, not just the capacity to think logically (Bull, 1969; Murdoch, 1970; Simpson, 1976). This view suggests that activities which allow individuals to act on their commitments will be more conducive to moral development than those which challenge a person primarily at an intellectual level. The interactive model provides opportunity for linking thought with action in relation to decision making over issues of personal significance - that is, over what the students want to learn, which are more engaging and immediately relevant than abstract moral dilemmas proposed for use in moral education.

The process of planning may itself raise issues of moral significance which require resolution: for example, an individual's obligations to others when working in a group, right and fair conduct in group processes, and fair criteria for evaluating the work of a group. The discussion and resolution of problems with respect to these issues can contribute to the students' moral development.

Bidwell (1972) argues that sanctions are "the critical element in the growth of moral commitment" (p. 24). Sanctions (rewards and punishments) foster commitment because they have the

> ... power to symbolize the dependence of one's membership ... in a dyad or group on the relation of one's conduct ... to the moral order of the group.
>
> (p. 24)

Thus negative sanctions (e.g corporal punishment, public sarcasm, being sent from the classroom) or positive sanctions (e.g. caring relationships, praise, acceptance, respect) define a moral order and shape conduct. The interactive model is based on solidary relations which appear to be more effective in inducing commitment to the values and norms symbolized than negative ones.

Kohlberg (1978) maintains that "The teaching of justice requires just schools" (p. 161). The "moral atmosphere" of the school can be assessed in terms of its level of justice or "the perceived rules or principles for distributing rewards, punishments, responsibilities and privileges amongst institutional members" (p. 47). That is, an institution based on democratic values is more likely to develop compatible values amongst its members than one based on autocratic values. The interactive model embodies the values of trust and respect for persons. These values are exemplified when the students are invited to participate in planning their own learning activities. The approach says to the student, the teacher trusts me, she thinks that my ideas and feelings are important and valuable. In such an environment the students are more likely to take the risk of disclosing their thoughts and feelings about their values or beliefs. When they feel confident enough to do this, it is then possible to explore why these values are held and their possible implications. Many people are unaware of what their values are until they are required to make a decision. The interactive model provides an opportunity for identification and classification of values in relation to the objectives of learning.

The group context for decision making may also promote fairmindedness in the sense of recognizing the importance of considering as many points of view as reasonably possible on a value issue. Such a co-operative effort also involves anticipating the implications of decisions for others. As

Lickona (1978) notes, "Decentering from one's own viewpoint is built into the nature of collaborative activity" (p. 176).

d) Emotional commitment. The experience of emotional states of varying degrees is a universal human condition and perhaps adolescence is a time of life when one's emotions are most intense. The adolescent has to come to terms with emotional reactions that accompany the gains in intellectual, physical and sexual development. This is part of the process of self- understanding. Changes in physical appearance and sexual development may lead to emotional insecurity and shyness in relationships with others, particularly the opposite sex. Conflicts with parents due to the adolescent's increasing independence in thought and the parents' attempts to exercise control can evoke intense emotional reactions. These may be sudden and occur with little apparent provocation and fluctuate widely. This in itself may be a problem for some adolescents with which they may be striving to come to terms.

Deeper emotional relations with others may now be experienced than in childhood because adolescents have a growing capacity to see situations from the perspective of others and to identify with others. Because they can conceive of ideal situations, e.g. ideal romantic relationships, their experience of less than ideal situations in life can lead to disillusionment, compassion and pity. Such emotional experiences may lead to commitments to a cause or a leader figure holding out the promise of changing society, of righting wrongs and of creating a more ideal society.

While "the role of the school in developing the cognitive skills of adolescents is never disputed" (Poole, 1980, p.47), there is less certainty about what its role in the education of the emotions should be and how the emotions function in learning. There is, nevertheless, a growing concern that the emotional dimensions of the personality are important in

development and should receive more emphasis. For example, the importance of "affect" in the development of the personality is recognized and stressed by Krathwohl, Bloom and Masia (1971) when they claim that "The affective domain contains the forces that determine the nature of an individual's life and ultimately the life of an entire people" (p. 91).

The education of the emotions is conventionally relegated to the arts but even here assumptions about their significance and value in life will affect the emphasis teachers may be willing to give them in planning educational activities. For example, if it is assumed that emotions lead people astray from what is right and true or that they distort rational perception then the concern may be with learning to control them or to sublimate them. If, however, it is assumed that the emotions are an inextricable aspect of human experience and that they enrich people's lives and can provide insights beyond the reach of cognition and rational appraisal, then their development and expression through appropriate media might be cultivated.

Kratwohl, Bloom and Masia (1971) maintain that the curriculum content, the teaching methods used, the whole culture of the school can contribute to the development of feelings, attitudes and values. They argue that programs and activities should enable individuals to examine their own feelings and attitudes towards subjects and activities but that this would require the creation of new learning environments given the dominant cognitive emphasis in schools.

If the emotions function as an undercurrent in all activity, then it seems obvious that they should not be ignored in the planning of learning activities. A teacher who recognizes their significance in learning would accept and respect students' decisions based on interest and emotional commitment. While it would be difficult to argue that interactive model can directly lead to understanding and control

of the emotions, it may at least provide the appropriate context for the expression of emotions without fear and the opportunity to act on the basis of emotional commitments which seems to be an important component of moral conduct (Broughton, 1978; Bidwell, 1972; Sullivan, 1977).

e) Development of a sense of identity. Development during adolescence is complex and multidimensional including simultaneous physical, intellectual, emotional and social development. It is a wonder that the personality becomes integrated somehow to form a cohesive unit. The image of the charioteer comes to mind, where the driver controls and directs the galloping horses towards his destination. The unifying concept of the self, as the integrating force in the structure of the personality giving behaviour purpose and direction, is analogous to the chariot driver. This concept is a pivotal one in humanistic psychology (Misiak and Sexton, 1973) and this theoretical position provides an additional supporting framework for the interactive model.

The achievement of a sense of identity or a stable, integrated sense of self is perceived as the overriding developmental task of adolescence in every theory of adolescent development regardless of its theoretical orientation (Grinder, 1978, p. 37). This is not surprising because it is during adolescence, with the attainment of formal thinking capacity, that individuals first contemplate themselves as objects - that is, they become self-conscious (Elkind, 1971). The newly acquired cognitive abilities enable adolescents to begin constructing a "self-theory" (Okun and Sasfy, 1977) which is, initially, vulnerable and tenuous but through experience crystallizes into a stable negative or positive self-concept.

The self-concept may be regarded as both a product and a process. It is a product in the sense that it develops as a result of social interactions and a process in the sense that,

once developed, it is a filter for subsequent experience. The interactive model provides mechanisms by which a positive self-concept may be achieved (Parsons, 1977), that is, choice, achievement, commitment and personal integration.

The concept of self may be better understood in relation to two other concepts, the organism and the phenomenal field (Rogers, 1951; 1970; 1977). The "organism" is the total individual, including all his/her physical attributes. It is dynamic and goal directed. The phenomenal field is the unique mental world of the organism, known only to oneself and consisting of all the experiences, conscious or unconscious, one has had. The phenomenal field is thus a very personal subjective world and, in Rogers' view, this is where a human being essentially lives (1951, p. 191). It is only through the acceptance and understanding of this inner world of personal experience that an individual gains freedom for action and choice.

The self or the self-concept is the part of the phenomenal field which is available to consciousness and which one experiences as a part of oneself. It includes the perceptions one has of one's body; of one's impression on others; of distinctive personal characteristics, abilities, assets and limitations; feelings about oneself; attitudes towards one's present status and future prospects; of one's worth or unworthiness. The self also includes an image of the "ideal self" or the picture of the type of person one would like to become.

The development of the self is also influenced by the behaviour of others, their appraisals and evaluations, their approval or disapproval, or, to use Rogers' terms, their "positive or negative regard". Aspects of these experiences are incorporated into the self-structure depending on how they are appraised. If an experience is valued or considered significant

it is incorporated into the self-structure. If not, it is ignored. If it is perceived as threatening it may be denied or distorted.

The self, then, constitutes the identity of the person. It is an active, creative agency, dynamic in that its development is seen as a continuous process and never completed. It is an integrating force which functions to bring together thoughts, emotions and values leading to purposive action.

Enhancement of the self or self-actualization is held to be a basic motive of behaviour in humanistic psychology. Rogers (1951) maintains that self-actualization means movement

> ... in the direction of greater independence or self-responsibility ... in the direction of increasing self-government, self-regulation, and autonomy, and away from heteronymous control, or control by external forces.
>
> (p. 488)

Thus if learning experiences are seen to be self-enhancing an individual will be motivated to learn.

In Rogers' view, what is needed for effective development is freedom from conflict. Development without conflict occurs when there is

> ... basic congruence between the phenomenal field of experience and the conceptual structure of the self - a situation which, if achieved, would represent freedom from internal strain and anxiety and freedom from potential strain.
>
> (1951, p. 532)

When persons reach this psychological state they are regarded as "fully functioning" (Rogers, 1961). Such persons usually trust themselves and their feelings and their behaviour is less determined by the expectations of others. They tend to be more

self-directed, more accepting of themselves, their thoughts and feelings which they do not try to deny or sublimate. They are accepting of others even if the behaviour or experiences of others differ from their own (Rogers, 1961, pp. 63-98). Therefore, development towards being a fully functioning person involves experiencing, trusting in oneself and others, and risking. As Rogers says:

> The process of healthy living is not, I am convinced, a life for the faint-hearted. It involves the stretching and growing of becoming more and more one's potentialities. It involves the courage to be.
>
> (1962, p. 32)

Staines (1970) believes that the significance of the self-concept is generally not fully understood by teachers, particularly its relevance to learning, motivation and social relationships. In a learning situation success or failure may often mean a change in the self-concept even though this change is an unintended outcome of the learning activity. Every learning situation may provide students feedback on, for example, their abilities, their status in the group, or their probability of success or failure. A teacher who is aware of this process can arrange for the flow of some positive feedback which will increase students' confidence in themselves and in their abilities to deal with difficult tasks.

What a teacher believes about the students' abilities and her expectations of them also have a significant influence on their self-concepts and achievement as the well known study by Rosenthal and Jacobson (1968) indicates. This study shows that teachers convey their high or low expectations of students in a variety of ways including facial expressions, gestures and language, and in the goals they set for students. In ability and performance students tend to fulfill their teacher's expectations of them.

The opportunity to achieve success is important because both adolescents and adults tend to be more aware of their weaknesses than their strengths (Otto and Healy, 1971). Adolescents need "self-strengthening" experiences to counteract their experiences of failure and negative peer or teacher attitudes. Once the self is seen as able instead of incompetent, achievement becomes consistent with the new self-concept, and an individual is likely to resist that which is inconsistent with the current view of the self. Those who see themselves as failures tend to give up quickly. Studies of the attitudes of tertiary students after experiencing success and failure (Diller, 1954) show that those with positive self-concepts blame their failure on the material and are ready to try other learning situations; those with negative self-concepts tend to blame themselves and may want to leave the learning situation.

Many students who drop out of school do so because they cannot tolerate failure and negative feelings about themselves that result from adverse school experiences (Harding, 1966). A study by Brookover, Erickson and Joiner (1967) of seventh grade students found that academic achievement alone may not produce a positive self-concept if it is not sustained by approval from persons important to the individual. Students are more likely to value and respect themselves if they feel that the teacher values and respects them. This implies consideration for the students' feelings and point of view. Warmth in terms of consideration, understanding and tolerance from the teacher increases feelings of personal worth. When the teacher makes participation in decision making available to her students she is communicating her confidence in their judgements, her belief that their contributions are worthwhile and that they have the ability to make decisions about their learning in a responsible way. In terms of the self-fulfilling prophecy (Rosenthal and Jacobson, 1968) the students are likely to fulfil her expectations. If so, the process nurtures the development of a

positive self-concept, i.e. the confidence shown leads to self-confidence and greater reliance upon the self and a greater sense of self-worth. These are important as attributes of a fully-functioning person and of successful future self-directed learning.

Many adolescents have a strong desire to be independent and responsible for their own actions, to be self-directing (Horrocks and Weinberg, 1970; Alexander and Farrell, 1975). Situations which challenge a person contribute to the development of a positive self-concept (Purkey, 1970) and challenge is made available when freedom to take responsibility for one's own decisions is provided. As Combs et al. (1971) note: "Failure to give people opportunity to experience responsibility makes them dependent and insecure" (p. 118). It is through experiences of responsibility and self-direction that students develop confidence in their own thoughts and judgements. Self-direction in learning and self-reliance (rather than reliance on authorities) are also important attributes of people who continue learning after formal schooling is completed. Although many people will not attend tertiary institutions, the need for learning does not vanish with the completion of secondary school. Research shows (Scobie, 1983) that 90% of adults are engaged in new learning projects every year. Over 70% of these projects are self-initiated and self-directed and no more than 20% involve formal educational institutions.

Research also suggests (Scobie, 1983) that in order to perform in a self-directed way, students need to be willing to: assume responsibility for their own learning; set high but realistic goals; be able to plan and perceive themselves positively as persons who have the knowledge and skill to engage in an activity, the capacity to follow through, and to assess their performance critically.

In the context of the interactive model students have the freedom to share control over all aspects of their learning. They have the opportunity to practise self-direction in terms of acting on their own initiatives in organizing learning projects and thus develop confidence in their own ideas and abilities. If the model is implemented gradually and if the teacher provides required support, students can learn to make their own decisions in security. The group context for decision making also provides a supportive social network and additional human resources to those provided by the teacher.

With the interactive model students are not socialized into dependence, passivity and irresponsibility. Such "negative socialization" may lead to learning what Seligman (1975) terms as "psychological helplessness" - the feeling that one has no control over the course of events in one's life; or to social alienation, which Mitchell (1971) defines as a feeling of separateness and unrelatedness to others. It can also lead to a painful "rite of passage" when the student eventually leaves the school and is expected to behave with initiative and responsibility. Seligman maintains that how readily people believe in their own helplessness or mastery is shaped by their experiences with controllable and uncontrollable events. This claim is confirmed in studies of school children by Dweck and Rapucci (1973) and De Charms (1972). To overcome the debilitating feeling of helplessness one must learn to exert control over the course of events. In secondary schools, however, we offer students few opportunities to exert control. As Covington notes, "we greatly prolong infancy and "schoolhood" forcing the child into a position of dependence on adults who far too often reward him for docility rather than for independence" (1970, p. 498). Janis and Mann (1977), who have surveyed recent research on the cost in personal well-being of restricting people's freedom of choice, suggest that:

> Perhaps the worst damage can be prevented if our society can expand the opportunities to make choices by removing

> some of the constraints on important life decisions affecting one's education, work, health, marriage ... all of which are vital for maintaining self-esteem.
>
> (p. 266)

Participation in decision making signifies integration in the adult world, not segregation from it. The fact that many students are ready to engage in such activities and are frustrated when the opportunities are denied is evident in studies such as the Commission of Inquiry into Poverty (1978) in Australia. As part of its brief the Commission examined the attitudes to school experience of students who had left school. A majority of students interviewed expressed some frustration in their inability to influence the school decisions that affected them (p. 58). In fact, a major criticism of the secondary schools was that they were not treated as young adults in them. Individual cases of rebellion are reported as

> ... against being told what to do all the time, what to learn, what to wear, what to read, and not being given a chance to act and think for herself; to accept the responsibility of being an autonomous individual.
>
> (p. 49)

While students, in retrospect, could see that the school protected them from the seriousness of the adult world, nevertheless many thought it kept them as children and ill prepared for that world. As one student commented:

> I would have had little faith in contributions that we as students could have made to the running of the school. Maybe it was because we were never given the opportunity to express our views, but we just didn't seem to think along the lines of what we could do.
>
> (p. 59)

Alexander and Farrell (1975) found that students in Ontario schools, who at least have some voice in the running of their schools by participating in student government organizations, feel that they learned valuable decision- making skills through these experiences. They are more willing to accept responsibility and are more appreciative of democratic processes.

The interactive model provides the context for self-reflection - that is, for inquiry in which students examine not only ideas and materials but also the meaning and significance these have for them personally. Students come to know that their ideas, points of view and feelings will be accepted and respected; the fear of ridicule and humiliation which is a threat to self-disclosure can be controlled and reduced. Time is available for reflection because the use of time is not controlled by a predetermined amount of content to be covered.

The group activities of planning and decision making allow students to bounce ideas around and to clarify points of view from the feedback of the group members. This process is a learning experience because one may articulate ideas which were previously only dimly available to consciousness. The conversation involved is a "reality maintaining process" in the sense that it may give

> ... firm contours to items previously apprehended in a fleeting and unclear manner. It helps to objectify reality by 'talking through' various elements of experience and allocating them a definite place in the real world.
>
> (Berger and Luckman, 1972, p. 172)

The group context also strengthens the social bonds in a group thus reducing the likelihood of social alienation. Decision making also provides students with opportunity to assert themselves and to act on their knowledge, values and judgements,

which can lead to self-reliance, self-confidence and independence and to becoming a person who can function effectively in society.

Values and Assumptions about Knowledge and the Learning Process

One may accept the previous arguments on the contribution of the interactive model to personal development yet object to the model on the grounds that it dismisses too quickly the potential value of existing forms of knowledge and modes of understanding which the students may be introduced to and which may be the basis of future interest. Pring (1976b) sees the problem in the following terms:

> ... how can one both respect the thoughtful concerns of one's students, making them the focus of one's teaching whilst at the same time preserving the superiority of one's own well tested standpoint which is to illuminate those various concerns?
>
> (p. 65)

If the students share the teacher's interests, and if the teacher's contribution is provided when it is requested, there would obviously be no imposition. But the removal of imposition does imply that the curriculum content planned by the students and teacher may not include the conventional academic disciplines or forms of knowledge.

In the framework of the interactive model a prescribed compulsory program based on the established forms of knowledge is unacceptable. Nevertheless, an advocate of the interactive model has to address the arguments in support of the claim that students should study such programs. These arguments are expressed by British, American and Australian authors and they

will be critically discussed in Chapter IV, but here the focus of the discussion is on the view of knowledge communicated to students through the interactive model, and on the values and assumptions held about knowledge and the learning process.

Personally meaningful knowledge

One of the assumptions in the interactive model is that by participating in curriculum decision making and developing learning activities based on their own interests and concerns students will be able to acquire knowledge which is personally meaningful. This opportunity is psychologically significant for the reason that an individual is only motivated to learn what appears to be personally meaningful or related to the self. In support of this view one can appeal to a number of theoretical positions.

From the perspective of perceptual psychology, meaningful learning occurs only if there is a close relationship between the content to be learned and the learner's self (Combs et al., 1971). The advocates of this position define learning in terms of a change in behaviour and claim that learning experiences which are not personally meaningful produce only a temporary awareness and are quickly forgotten. The degree to which learning is personally meaningful depends on the relationship of what is to be learned to the self. Figure 3.1 is a graphic representation of this relationship.

The large circle represents a person's perceptual field. The small circle represents perceptions of the self or the self-concept. Points A B C D and E represent various events, phenomena, concepts, and information in the perceptual field. These are at varying distances from the self but "The closer events are perceived to the self, the more likely they

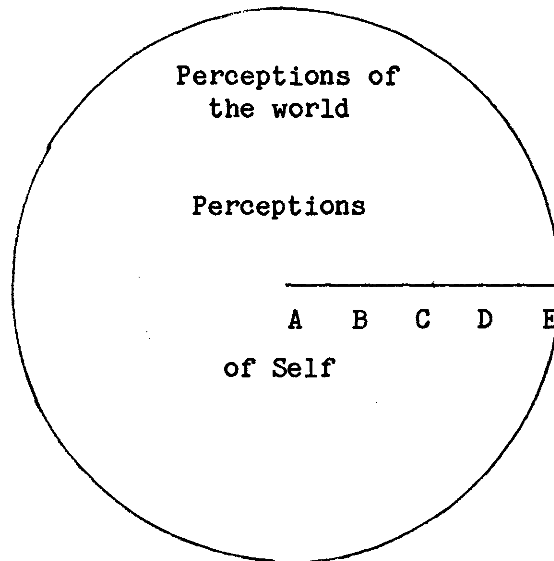

Figure 3.1 Learning in terms of relation to the self. (Combs et al., 1971, p. 94)

will affect behavior in significant ways" (Combs et al., 1971, p. 93). In other words, they will be more personally meaningful and likely to lead to learning. Conversely, "the farther they exist toward the periphery of the perceptual field, the less influence they will exert" (p. 93). The way to help people learn is to move "information into closer and more meaningful relationships to self" (p. 93). The assumption in this view is that meaning is not inherent in the subject matter no matter how well organized, that it is the individual who instils it with meaning, and that learning is not purely a matter of cognition. Rather it involves intellect, emotions, attitudes and values. Since the interactive model provides students a say in what is to be learned the subject matter will be initially closer to the student's self and relevant to his or her purpose.

One can also argue from the perspective of existential phenomenology that alienation from schools among adolescents is due to a lack of personal meaning or the lack of personal

existential relevance in what the students have to learn (Vandenberg, 1971). The reason for this is that schooling which focuses on the transmission of bodies of organized subject matter "is diametrically opposed to the existential pedagogic relation desirable as the teacher helping the pupil into the pupil's own possibilities ... to be someone" (Vandenberg, 1971, p. 101).

An educational program whose central concern is with initiating students into the full range of established forms of knowledge may require thought and action which lacks authenticity in that the activities engaged in may have no apparent significance and value in relation to individual students' concerns. Students may be indifferent to the activities or consider them irrelevant to their concerns.

Adolescents are idealistic, future-oriented, full of energy and enthusiasm and "the experienced vitality urges them into their own future ... but they are directed in their schooling to go into the past instead" (Vandenberg, 1971, p. 48). To prevent the learner from becoming a detached and alienated observer, learning must be accompanied by continuous contact with what Vandenberg calls the "landscape" of experience (meaning one's perceptual reality or immediate experience) as distinct from "geography" (which is the structured thematic, reflective and mediated experience the school provides) thus uniting the psychological and the logical world of experience, or the pre-reflective with the reflective consciousness of things. If this does not occur, "Schooling may become largely a period of waiting due to lack of engagement in concrete possibilities" (p. 89), and it may be perceived by students, as some researchers have found, as an artificial routine not related to learning "for life" (Saljo, 1979). By providing students the opportunity to make decisions about their learning in the context of the interactive model, they have room for doing things their own way, to pursue their own ends, to be

original and creative. Such opportunities involve more of the self and affirm being. They acknowledge that the student is someone with the power to contribute.

Another related assumption is that intellectual development can occur through the serious pursuit of issues of personal significance. Development does not seem to be restricted to a discipline-based educational program which may involve only transfer of information without development of the mind or gains in understanding. For example, Connell _et al_. (1975) found that in the Australian schools they studied the emphasis was on intellectual development but it was of a

> ... limited range ... one that can be produced quickly in a restricted time, that can be graded into detailed percentages and compared with the performance of others on the same task, that can efficiently reproduce already stored ideas and that can be performed individually without reference to friends or advisers.
>
> (p. 293)

The product of an educational program focused on the forms of knowledge may not, therefore, be the kind of intellectual development desired. In fact, the values and attitudes acquired may be anti-intellectual expressed in a passive dependence on the teachers or in an uncritical reception of what is presented. This is the "banking" concept of education, to use Freire's (1972a) term, where knowledge is deposited in the students who are their objects in the learning process in the sense that they are not initiating their own learning and the knowledge under consideration may not be related or applied to their concerns.

The view that the pursuit of personal interests is potentially educative is supported by Wilson (1975) who argues that in so far as a person is seriously concerned with an

interest and is motivated "to appreciate and understand his interest more fully and to pursue it more actively and effectively" (p. 204) it is educative. Wilson holds that

> ... the 'seriousness' of any activity is shown by one's willingness to try to give reasons for the way in which one is engaging in it, or ... by the extent to which one can show that one is thinking about it in a more or less disciplined way.
>
> (p. 211)

He acknowledges that the pursuit of an interest is risky because the outcome is unpredictable, but this risk element also applies to the pursuits of adults, not just those of children or adolescents. In choosing to pursue a certain interest both adults and children reject others which may have been in their interest to have chosen in the long run. With the best information available, even adults may make choices that on hind-sight are not the best.

Wilson's approach to education is based on a respect for and appreciation of children's mode of thinking. He does not rule out instruction or other forms of teaching but argues that whatever form is used there has to be an "intrinsic connection between the teacher's preoccupations and the children's interests" (p. 210). While the teacher has "his own characteristic style of thinking" which is undoubtedly influenced by "the academic tradition in which he sees himself as working", he cannot start from this tradition for, in Wilson's view

> unless the teacher begins his instructive communication with the pupil in a language or in relation to experiences and activities which already the pupil understands something of the point of, then no conceptual development of interest will result directly from the encounter.
>
> (p. 211)

Dewey's philosophy of education antecedes Wilson's theory in its concern with "maintaining a vital connection between knowledge and activity" (1916, p. 356), whether this activity is the play of children (which Dewey considers to be a purposive activity), reflective thought, or work. Dewey assumes that human beings are by nature curious, alert, flexible in ideas and attitudes, with interpretive intellectual powers and interested in events around them. He believes that satisfying a child's interest is educational if it means working out the interest because

> ... working out involves running up against obstacles, becoming acquainted with materials, exercising ingenuity, patience, persistence, alertness, it of necessity involves discipline - ordering of power - and supplies knowledge.
>
> (Dewey in Silberman, 1973, p. 520)

He claims that anything which can be called a subject or a study is "derived from materials which at the outset fall within the scope of ordinary life experience" (p. 525) and argues that subject matter cannot be effectively taught to enhance the growth of individuals unless it raises and responds to intellectual problems in their minds. Thinking is brought into play by felt difficulties and problems. It is not confined to the specialized domains of knowledge. It arises from activities in which the students are interested and is stimulated by problems which develop in these situations. Dewey criticizes the separation of school knowledge and knowledge accruing from the world outside the school:

> Pupils are taught to live in two separate worlds, one the world out-of-school experience, the other the world of books and lessons. Then we stupidly wonder why what is studied in school counts little outside.
>
> (1933, p. 259)

Working to acquire knowledge which is not personally meaningful, which is separated from one's existential situation, does not lead to self-understanding. It leads to a separation of thought and action and to a fragmented and alienating school experience. In the interactive model it is assumed that the educational significance of what is learned depends on the personal significance students find in the learning activities. The significance of the curriculum is thus "individually achieved rather than collectively ascribed" (Eggleston, 1975, p. 327). The model does not work against the student's will. Students may have a sense of ownership or control over the learning process and come to appropriate knowledge which is important in acquiring a sense of self-identity.

Integration of knowledge

To act on the principle of respect for persons means to take seriously and attempt to understand the students' present knowledge/culture and not assume that they are mere "barbarians at culture's gate" (Wilson, 1975, p. 211). To learn new subject matter and to learn it in a meaningful way one must link it or integrate it with what one already knows. Empirical research on the persistence of prior concepts when learning new ones (Posner, 1982) indicates that students' beliefs and assumptions strongly influence what new concepts they will or will not accept. Toulmin (1972) uses the terms "conceptual ecology" to describe how the complex of ideas one possesses influences the acquisition of new ones.

Ausubel and Robinson (1969) have developed what they call a "meaningful learning paradigm" which assumes that the learner's "cognitive structure" - consisting of facts, concepts, propositions and theories - is "the most important factor influencing learning" (p. 50). Meaningful learning, as distinct from memorizing or rote learning, is thus unique to an

individual because it is dependent on "a particular content of awareness evoked in a particular learner who has a unique cognitive structure" (p. 54). Thus for an individual the structure of knowledge is personal and idiosyncratic and a function of the integration achieved in the course of experience.

In Ausubel's (1964) view, the process of making connections for meaningful learning involves subsuming the content to be learned into the existing cognitive framework. The new material will be subsumed if it is an example of a concept already available to the learner in his or her cognitive structure or if it is a part of currently understood material. It will also be subsumed if it is logically derivable from currently grasped propositions.

The emphasis on dialogue in the interactive model acquires added significance in the context of this learning theory. It should enable the teacher to learn what the students already know in relation to their interests and concerns and allow her to decide how she may best help students extend, deepen, revise or reorganize existing knowledge. The students' participation in curriculum development also provides opportunity for identifying and linking what they already know with what they wish to learn.

The interactive model does not assume that all students learn or should be able to learn in the same way. Research on learning styles shows that students differ in terms of the degree of direction and support they require and that all students do not learn best under the same conditions. Mann _et al_. (1970) have identified eight basic learning styles in case studies of students at the tertiary level: anxious, teacher dependent; discouraged, never satisfied worker; students who prefer working alone; those who feel superior to others but do not achieve well; those who are insecure and hostile and negative to others; attention seekers; and silent students who

are either interested but insecure or "tuned out" and uninterested. Stern (1970) has identified three styles: the authoritarian who sees education as a preparation for a career and has rigid personal relationships with others; anti-authoritarian who shows independence and wide intellectual interests; and the rational who is characterized by an impersonal detachment and an emphasis on intellectualization. Atkinson (1981) notes that some people learn serially from lists, others holistically from diagrams, tables and drawings.

In spite of this research, knowledge about how best to match teaching style and classroom environment with students' learning styles is at a beginning stage only. At least the interactive model may provide students with the opportunity to structure learning projects in a way which suits their own learning styles for effective personal integration of knowledge.

Reconstruction of experience

As described above, the learning process is an active one of constructing meaning by building on what one already knows and using what one has constructed to interpret subsequent experiences and to construct new patterns of meaning. This view of learning is compatible with the active role envisaged for the students in the interactive model. During this process previous knowledge may be reorganized or reconstructed. There is support for this view in a number of theoretical positions.

Dewey gives central place to the interrelated concepts of experience, reconstruction of experience, and growth in his theory of learning. The basis of thinking is held to be experience. Experience is conceived as interaction between an individual and the environment

> ... the combination of what things _do_ to us ... in modifying our actions, furthering some of them and resisting and

> checking others, and what we can do to _them_ in producing new changes constitutes experience.
>
> (Dewey, 1916, p. 272)

He distinguishes between the pre-reflective feeling experience of the environment and reflective, evaluative experience. In the latter

> ... doing may be directed so as to take up into its own content all of which thought suggests and so as to result in securely tested knowledge. "Experience" then ceases to be empirical and becomes experimental. Reason ceases to be a remote and ideal faculty, and signifies all the resources by which activity is made fruitful in meaning.
>
> (1916, p. 276)

This type of reflective experience is considered indispensable for growth.

Freire (1976) also distinguishes between different ways of experiencing the world and there are some parallels between Dewey's notion of reflective experience and Freire's concept of "conscientization". In Freire's theory one way of experiencing the world is pre-reflective as held by existential phenomenologists. Pre-reflective experience is "a consciousness of reality [which] exists precisely because men as beings in time and space are with and in the world knowing it and being a part of it" (p. 224). But this is only a "first level of apprehension" of reality which "does not reach the stage of full knowledge" (p. 224) or conscientization, which is "a permanent critical approach to reality" (p. 225). Freire's problem is to develop a system of education which would lead to the development of critical consciousness and he believes this can be achieved by posing the

> ... existential concrete present situation to the people as a problem which challenges them and requires a response not just at the intellectual level but at the level of action.
>
> (Freire, 1972b, p. 68)

To achieve this, their participation in planning learning activities is essential.

The active view of the learner implicit in Dewey's and Freire's conceptions of the learning process is also found in Piaget's view of cognition as a subjective constructive process. This view is evident in Piaget's distinction between physical experience and logico-mathematical experience (Elkind, 1970, pp. 86-96). Physical experience occurs when things in the environment "act" upon individuals. (The word "act" is used to indicate both overt physical behaviour and forms of perception, thinking, remembering and even dreaming.) This involves discovering the innate qualities and properties of things which emanate from them and act upon us; for example, we perceive that oranges have a certain smell and colour. Another mode of experience occurs as a result of <u>our</u> actions upon things and this is labelled "logico-mathematical" experience. This involves discovery of properties and relations which belong not to the things themselves but rather to our "actions" upon them; e.g. concepts such as right, left, quantity, number. These all have a logical necessity not present in physical experience. As adults we "externalize" these mental productions in the sense that we take them as given in the environment or "out there" independent of thought; however, in reality, they are at least, in part, a product of our mental activity. Growth, therefore, in the development of knowledge is a dynamic self-directed process, resulting from the structuring tendencies within an individual and from interactions with the environment which result in the continuous restructuring of mental capacities.

One may conclude that there is a dialectical principle involved in this process (Israel, 1972) since individuals act upon the objects in their environments and mentally transform them and are themselves transformed by them; that is, the structures which organize experience are themselves transformed by experience. Thus there is a relationship of reciprocal

influence between cognitive structures and experience manifested in the postulated processes of assimilation and accommodation. The philosophical perspective in cognitive developmental theory may, therefore, be summarized as follows: we are what we make ourselves by our own actions; development is a self-constructive process in which the individual is the active agent, not the passive recipient; we do not mirror our experience, we create it, and in the process we change ourselves (Langer, 1969).

The active view of the learner is corroborated in existential phenomenology which regards consciousness as intentional in the sense that one is always conscious of something whether in the physical world or in the imagination. Dennis (1974) expresses this concept as follows:

> To a phenomenologist all meaning is conferred upon an object by means of an intention of the mind, i.e., meaning occurs when the mind is related in some manner to an object. Thus, instead of being present in the object, meaning is conferred upon the object by the consciousness of a subject. Something may exist independently of the consciousness of a subject, but it can have no possible meaning for the subject until it has become an object which is intended by consciousness.
>
> (p. 144)

Thus acts of consciousness make objects "appear" as phenomena in consciousness. The phenomenal world is therefore constructed of meanings that we intend or attribute to objects or experiences. All things in the physical or mental world may be phenomena of consciousness: persons, events, memories, feelings, moods, thoughts, images and even fantasies.

Phenomenologists postulate that in our everyday lives we operate on the basis of unexamined assumptions, taking things for granted. This taking for granted constitutes the "natural attitude" of everyday life in which one is rarely concerned with

one's own mental life (Zaner, 1970). This is not the case in an educational situation. While the goals of education may not be to understand the essential nature of reality by examining the phenomena of consciousness, nevertheless understanding of the world and of oneself is stressed in theories of education. Communication, as a process of questioning and responding, figures largely in the quest for understanding. As Zaner (1970) puts it:

> My questioning by its very character, opens me up to possible responses to which I am obliged at the very least to listen critically.
>
> (p. 25)

This process can occur during conversation between two people, e.g. a teacher and a student, between a reader and a book, or it can be conducted internally in reflection which is a form of self-questioning. Self-questioning may occur when one "stops and thinks" about taken for granted ideas and attitudes or when one is shocked into disengagement by an experience, jolted out of the normal sense of reality. The arts are often capable of providing this jolt. Zaner argues that this kind of brief stepping back and taking stock of reality can be used to focus on what evidence sustains a person's perceptions of reality. The way to move towards phenomenological inquiry is then to

> ... sustain that kind of shock and disengagement systematically and then methodically to explore in depth what is then disclosed to us.
>
> (Zaner, 1970, p. 50)

A teacher can encourage students towards phenomenological inquiry and meaningful learning by stimulating them to question the knowledge they possess, to reflect upon how it was acquired and how it may be communicated; to be reluctant to accept received concepts; and be willing to examine what they know in order to validate concepts and beliefs and make them their own by grounding them in experience.

Social construction of knowledge

An advocate of the interactive approach may appeal to the view that knowledge is developed in a social context by means of social processes and this view is not communicated to the students where the emphasis is on the transmission of subject matter or on the initiation of students into the forms of knowledge in a subject- based curriculum.

Very early in life individuals are surprisingly socially active as research on the linguistic development of infants shows (Newson and Newson, 1975). They are capable of taking part in dialogue-like exchanges through gestures, hand and eye movements and turn taking. Newson and Newson describe communication between a baby and mother as an "intersubjective product of their joint collaboration" (p. 442), drawing attention to the principle that understanding arises from a process of negotiation between human beings. Research on intellectual, social and moral development also suggests that a co-operative social context fosters learning.

The concept of knowledge as socially constructed finds support among philosophers, sociologists and historians. Even Pring (1975a), who does not endorse all the tenets of the sociological view, acknowledges that:

> In any area of knowledge both the concepts employed and the standards subscribed to require intersubjective agreement, for to communicate requires agreement about the use and application of concepts and to master a language is to be introduced to a shared set of meanings.
>
> (p. 30)

Young (1971) argues

> ... that the knowledge transmitted in education is neither absolute nor arbitrary, but are available 'sets of meanings' which do not 'emerge' but are

> collectively given. What is regarded as 'logical' or 'valid' is based on various standardized models which are necessarily sets of shared meanings which come to be taken for granted.
>
> (p. 5)

Young (1973) also calls into question the superiority of academic knowledge over the everyday commonsense knowledge available to people.

In relation to the history and philosophy of science Kuhn (1962) argues that scientific inquiry occurs in the context of "paradigms", which are ways of seeing, conceiving and interpreting the world. A paradigm is a product of an intellectual tradition, of a historical process of modifying, testing and refining knowledge. It has implications for the problems selected for investigation, for the conduct of inquiries and for determining what counts as an acceptable, valid solution to a problem. Scientific or intellectual problems emerge from the inadequacy of current concepts to explain phenomena. Proposed solutions are, however, judged in terms of existing knowledge, methods of inquiry and standards for testing solutions. Conceptual modification occurs over a period of criticism and assessment in terms of intellectual standards and criteria embedded in existing disciplines and knowledge and accepted by the appropriate intellectual community. It is not based on the accumulation of facts but rather on the transformation of current knowledge.

This argument suggests that current concepts are used as instruments of thought to understand the world and our experiences. Thus the argument can be used in support of granting provisional intellectual authority to organized knowledge. However, it can also be used in support of an approach which puts the emphasis on the provisional rather than on the authoritative aspect of knowledge and on experiencing the

social process of its generation rather than its transmission, thereby communicating to students the view that:

> There is no concept that is so central to our thinking that it is impossible to challenge that idea or imagine its rejection. In this sense, whatever authority ideas have, no idea has any ultimate intellectual authority.
>
> (Strike, 1982, p. 33)

Kuhn's arguments also corroborate the construct that learning is based on what one already knows and Dewey's emphasis on reflection and reconstruction of experience. It also supports the emphasis in the interactive model on communication between the teacher and students to identify, elaborate and refine students' categories of thought and structures of reasoning and to enable teachers and students to design learning activities based on present difficulties.

Since it is uncommon to teach the history of a form of knowledge at the secondary school level, there is little recognition of its social origins and development, and the emphasis on transmitting and receiving knowledge militates against the use of social situations in group projects to generate meanings from the perceptions of others involved in the learning process. To adequately communicate the sociological view, however, it does not seem sufficient to show that knowledge is historically grounded and contextualized. One must also communicate to the students the value of their own activity and agency in the learning process which the interactive model may achieve by the emphasis on participation, collaboration and negotiation. Arguments for a discipline-based program seem to ignore the conceptions and values transmitted by associated structures and relationships. In a discipline-based program the teacher/expert is invested with authority to control the selection and organisation of subject matter, to set tasks and to evaluate the performance of the students/novices. Peters (1963) and Pring (1975a) make a distinction between the authority

of a person and the authority of reason and assume that the teacher exercises authority of reason by virtue of being an expert. However, "the authority of ideas leads to the authority of those who possess them" (Strike, 1982, p. 35). Also the compulsory nature of curricula when coupled with the brevity of teacher training programs, which militates against acquiring expertise, work against ensuring that only the authority of reason will prevail and not personal authority ascribed and sanctioned by the educational institution.

The students' limited involvement in the system of interaction eventuating from the subject-based structure leads, in Bernstein's (1977) view, to a particular form of consciousness of their own ability to control and make decisions. That is, they internalize the particular relations of power and control inherent in the structure which determines the level of interaction in the classroom. Therefore what is significant about the classroom structures and relationships is that they mediate or shape perceptions and consciousness. In Bernstein's (1977) words, "the principles of power and social control are realized through educational knowledge codes and, through the codes, enter into and shape consciousness" (p. 94).

Bernstein argues that when a curriculum is organized around the study of themes or projects - that is, the "integrated" rather than the "collection" code - the barriers between subjects are broken down and they are brought into a new relation of interdependence. Such changes also involve new forms of co-operation between teachers and pupils, and horizontal power relationships, instead of vertical, hierarchical ones, are developed. The power of the teacher becomes less visible and the students acquire a greater degree of control over the curriculum and a different perception of knowledge, of power, control and of relationships, and a different perception of their positions as persons who can exert some control in shaping a situation. These perceptions become internalized and shape one's consciousness.

Sarup (1978) has indicated that these views are supported by other social scientists oriented towards phenomenological sociology and Marxist and neo-Marxist social thought, such as Young, Keddie, Esland, Apple and Giroux. Giroux (1981) maintains that the relationship of authority and powerlessness which students may internalize in the course of experiencing a subject-based curriculum is more likely to dictate meaning rather than "foster a critical search for meaning" (p. 84). Freire's (1972a,b) critique of prevailing modes of education in the third world indicates how schooling, through the banking concept of education, not only reproduces oppressive social relationships and restricts individual and social experiences, it also denies the subjectivity of students and inculcates a form of domination which affects not only their thinking but personality and character as well. The dialogical relationship between the teacher and students advocated by Freire is the foundation for engaging in critical examination of the social context in which the students live and for liberation from internalized control.

The interactive model is oriented towards Freire's theory by putting the students, not established knowledge, at the forefront. Through their participation in curriculum development the attempt to connect knowledge to the students' everyday lives and thus make them the subjects and not the objects of the learning process may be more successful. When the emphasis is on the forms of knowledge there may be a failure to link knowledge to the existential situation of the students. The relevance of everyday life may be underemphasized; critical examination of assumptions which underpin and shape students' consciousness and activities may be discouraged and the knowledge presented may appear to have no firm root in the social realities of students' lives. What may be communicated instead is that

> ... their cultural center of gravity, their mode of generating meaning in the world does not matter. Instead they are told that what they bring to the class is less important than what they are given.
>
> (Giroux, 1981, p. 84)

The view that knowledge is socially constructed also implies that it is tied to human interests, values and beliefs (Habermas, 1971), and that ideology has a role in the construction process if one accepts the view that "subjective perceptions are dialectically related to the social world and do not simply mirror it" (Giroux and Penna, 1981, p. 214). The knowledge produced throughout man's history and the knowledge an individual acquires may be considered ideological in a neutral "descriptive" sense or in a "pejorative" sense (Geuss, 1981). It is ideological in the first sense by including beliefs, attitudes, psychological dispositions, values and world views. It is ideological in the pejorative sense if it includes beliefs which are false (e.g. value judgements presented as facts); or if it functions in a reprehensible way (e.g. to justify unjust social practices or relations of exploitation); or if it has a tainted origin and history (e.g. originating with a certain class in society and appropriate only to that class).

Ideologies are inscribed in the ways people think, speak, write, in social practices and in social institutions. They "saturate people's daily experiences" (Giroux, 1981, p. 148). Troutner (1974) observes how difficult, if not impossible, it is for individuals

> ... to see and incorporate those environmental factors that influence our lives which we do not consciously experience in lived reality, but which, nonetheless, are extremely important as far as our education is concerned.
>
> (p. 42)

This difficulty occurs because the effect of the cultural environment is cumulative "and is imperceptible to immediate conscious experience" (p. 43). Children and adolescents already grasp and use the culture which surrounds them since birth although their grasp and use of it may be unreflective. The problem for educationists is to identify the conditions under which they are likely to reflect upon it, to recognize its ideological character and to reformulate it.

Individuals do not normally regard the knowledge they possess as "problematic" in the sense that it is a way of making sense of experience which enables them to pose some types of questions but suppresses others. They may, however, become aware of its problematic nature when they are encouraged to examine the processes by which they come to know things and the methods by which they constitute meaning, or when they question what they assume to be commonsense and examine the assumptions they take for granted.

These problematic and ideological aspects of knowledge indicate the importance of communicating with the students in a critical way to identify how they make sense of experience and to examine the explanatory power and the limitations of their conceptual frameworks. They also indicate an important function of the teacher's role which is discussed in the following section.

Values and Assumptions about the Teacher's Role and the Learning Environment

As the description of the teacher's role in Chapter II indicated, traditional definitions of "teaching" do not seem to fit very well in the interactive model. The teacher's role may be best described as one of establishing the environment for the communication and critical interpretation of experience, for

collaborative decision making and for learning. This entails an active role for the teacher but of a different nature than perhaps conventionally defined.

Nature and value of the teacher's input

In describing the role of the teacher in the previous chapter the conventional roles associated with transmitting subject matter, i.e. expository modes of presenting information and guided discovery, were not included. This is because in the context of the interactive model the students have a say not just in what is to be learned but also in how learning should take place. Therefore teaching methods which are likely to exclude students from participation in decision making, and which are likely to encourage passivity and dependence rather than activity and self-direction, are not highly valued.

Nevertheless, the interactive model does not exclude input from the teacher who may be "excited by a particular intellectual field" and who wishes to communicate her enthusiasm for it and to share her knowledge (Williams and Foster, 1979, p. 45). This can indeed happen but it is assumed that the teacher's priority is not that of communicating her subject matter but that of helping students formulate and achieve personally significant educational goals. Therefore, the traditional authority of the teacher, in as much as it resides in subject matter expertise, is diminished.

It is assumed that the teacher's goal is to discover the students' concerns and interests - whether they concern car engines, computers or reptiles - and to help them plan projects to widen and deepen their interests and knowledge. It is assumed that she will try to relate her knowledge to their concerns and interests and demonstrate to them (or explain, show, argue for) how this knowledge, or the methods of enquiry

entailed in its production, may be used by them to illuminate their concerns or to achieve their goals. Obviously in doing this the teacher is trying to persuade and influence the students, but the challenge is to present her position without using coercive strategies or other forms of manipulation which do not respect the individuality of the students. This is possible if the teacher helps the students translate and develop their interests into a curriculum rather than build a curriculum exclusively around her subject matter. The subject matter she knows or the discipline she loves may or may not be of interest or meaningful and useful to the students. Also, she may not be able to personally provide them with the knowledge they need at various points but she should be able to direct them to other resources which can.

How far the students proceed in pursuing their interests depends on their motivation and the kind of support the teacher, the school and the home environment can provide to sustain and develop interests. One can appeal to Wilson's (1975) concept of interest-based education for a source of theoretical support for this role. Wilson argues that students do not wish to pursue all their interests and there is room for applying the criteria of prudence, morality and practicality in selecting which interest to pursue in school. These criteria are for the teacher's use in guiding students' pursuits or in giving "effective help". Wilson maintains that "This effective help is the educative function of teachers, and it <u>includes</u> the weighing of each risk against its possible gains" (1975, p. 205).

The encouragement of self-determination in the pursuit of interests does not, therefore, exclude an active role for the teacher. She can participate in structuring the learning situation without assuming complete responsibility for it in a number of ways. She can, for example, share in planning methods of inquiry by helping students decide on the focus of their studies, by suggesting alternatives, by challenging and

questioning their views and decisions, and by generating discussion and reflection. This does not mean structuring the projects for them or insisting on the students adopting a predetermined structure. Possibilities are deliberated and argued; resources and information are provided as needed. In performing this role, however, the teacher must be on guard against the danger of subtle manipulation of the students.

An active role of this nature is supported by cognitive developmental theory, which maintains that intellectual and moral development occur as a result of exposure to situations which pose problems for and contradictions to the students' current mode of reasoning. Development is seen to be encouraged by a non-dogmatic and non-directive teacher which is what the interactive model implies. Students will <u>not</u> be conditioned to accept the views of the teacher without question because the responsibility for planning and structuring learning activities is shared and decisions are not imposed.

The non-directive teacher role may have spin-offs in terms of pupils' attitudes to themselves and to the school. Flanders (1951) found that non-directive teachers who accepted students and were supportive of them enabled students to focus on problems and the tasks in the learning situation more effectively, and made students less anxious and more emotionally integrated. When he further explored the nature of interaction in classrooms in a later study, Flanders (1960) found that indirect teacher influence was more likely to lead to favourable student attitudes toward the teacher, the subject matter and other aspects of school organization and higher achievement than direct teacher influence. The indirect teacher influence was characterized as accepting feelings, praising, encouraging, accepting and using pupils' ideas, and asking questions. The direct teacher influence was characterized as lecturing, giving directions, criticizing and justifying authority.

The non-directive, helping role and the emphasis on dialogue and personal relationships rather than on subject matter may be linked with the role envisioned for the teacher in "open" education and "humanistic education" (Hogben, 1974) and for the helper/counsellor in self-concept theory and in perceptual psychology, areas which in turn are linked with phenomenological and existential philosophy (Hall and Lindzey, 1970; Misiak and Sexton, 1973). Within this framework is found the assumption that the teacher is a facilitator of positive human relationships which enable people to learn and to be responsible for their own learning and of respect for the capacity of individuals to deal constructively with their own lives. Rogers (1951; 1969) extends his view of therapy as a mode of learning to education and emphasizes the need for empathy to appreciate the students' point of view, the use of reflective comments for raising students' consciousness of their perceptions and feelings, and the importance of freedom from threat to the self in the form of humiliation, ridicule, devaluation, scorn and contempt. When such threats are minimised the individual can confidently make use of opportunities to learn. Studies of effective "helpers" indicate that they are people who see their purpose as freeing, assisting, and releasing rather than controlling people; as being personally involved with, rather than alienated from, the people they work with; as concerned with people and their experiences rather than with objects, events, rules and regulations; and who see others as creative and dynamic rather than passive and inert, and as trustworthy and dependable rather than capricious and undependable (Combs, et al., 1971, (pp. 12-15).

Purkey and Novak (1984) review research which indicates the influence of teachers on students' self-perceptions. Teachers who regard students positively as able, valuable and responsible contribute significantly to students' personal growth and academic achievement. Research also suggests that in

order to regard students with understanding and acceptance, to appreciate their feelings, to perceive the significance of problems in their lives and to engage them in dialogue, the teacher must first be a self-aware, self-understanding, self-accepting and self-respecting person (Purkey and Novak 1984) because:

> It is only when persons feel fundamentally adequate that self can be transcended and attention truly given to the needs of others. People who feel inadequate cannot afford the time and effort required to assist others as long as they feel deprived themselves.
>
> (Combs, et al., 1971, p. 13)

The facilitator/helper role is not incompatible with the Socratic and devil's advocate roles already suggested in order to encourage intellectual development and the development of a critical attitude in students. The importance of the teacher's capacity to foster a critical attitude towards knowledge has already been discussed in relation to the assumptions made that knowledge is formed and developed through ideological processes. Freire points to the importance of recognizing how deeply the values and attitudes of a culture influence the students' thinking and personal development and how the teacher can be an instrument of domination or liberation, providing an education leading to conformity and passivity or to "conscientization" (Freire, 1976, pp. 225, 226).

In Freire's framework the teacher bases her interaction with the students on their understanding of the world in order to develop a critical attitude. As Freire (1972b) asserts:

> The starting point for organising the programme content of education or political action must be the present existential, concrete situation, reflecting the aspirations of the people.
>
> (p. 68)

She attempts to reflect this understanding back to them, pose it to them as a problem. The effective performance of this task is based on the assumption that the teacher would be able to objectify and reflect the students' understanding of the world, help them distance themselves from it; and be able to focus their attention on the contradictions and anomalies in their views. She should be able to help them see the problematic aspects of their knowledge; provide criticism which would challenge students to think about the grounds of their beliefs and provide necessary resources for initiating new possibilities of thought and action.

Troutner (1974) formulates the problematic aspect of culture in the following terms:

> Man creates culture, but at the same time man is created by culture: he is both creator and creature.
>
> (p. 43)

He suggests that the starting point for philosophical inquiry into the man-culture relationship is not the study of other cultures but questions of personal identity. A teacher with an orientation to existential phenomenology could seek to resolve the problematic by working collaboratively with the students in planning their educational programs around questions of personal significance such as those concerned with developmental themes which, from a psychological perspective, are most significant to students during adolescence. The teacher's capacity to foster a critical attitude toward these questions may be enhanced if she has a phenomenological approach to knowledge. By phenomenological is meant a process of inquiry by which assumptions and views of knowledge "are constantly pushed up front where they can be reflectively explicated" (Van Manen, 1978/79, p. 49). If the teacher has such an orientation she will encourage her students to put aside "preconceived notions about even the most ordinary event in order to see it in a new way" (Barritt <u>et al</u>., 1983, p. 142).

The suggested Socratic and devil's advocate roles embody the value of a critical attitude towards knowledge. These roles prompt reflexive inquiry as they encourage students to reflect on their own views as these are reflected back to them by the teacher and prompt the development of a disposition to question, to wonder, to have a concern for truth, and to be open minded. A critical attitude asks about the origin of knowledge, about its development, purpose, significance and application. It does not depend on already having disciplined knowledge which is the claim of some theorists such as Strike (1982). Discipline-based criticism pertains to "internal criticism" which is "confined to solving puzzles within its own symbolic space and as such cannot step outside of the assumptions that legitimate it" (Giroux, 1981, p. 154).

Establishing personal relationships

The teacher-student relationship is part of the environment to be established. It is assumed that this relationship will be "personal" in the sense that the moral principle of respect for persons is the guide for action and the teacher would be expected to treat students as persons not as things. There are, therefore, definite moral values associated with the suggested role. The teacher can express respect for persons in many ways: by negotiating disagreements and conflicts rather than imposing decisions; by taking what students say and do seriously; by rejecting indoctrination and stereotyping; by treating students as unique individuals and therefore to a degree unpredictable; by trusting and listening to students; and by rejecting any form of physical or mental violence (e.g. ridiculing or humiliating students).

By establishing personal relationships with students the teacher can create a sense of community - that is, a caring learning environment which affirms and accepts the students and

a cohesive group. The psychological importance of a caring environment is stressed by Buber (1965a) when he says that:

> Man wishes to be confirmed in his being by man, and wishes to have a presence in the being of the other ... secretly and bashfully he watches for a yes which allows him to be and which can come from one human person to another.
>
> (p. 71)

Such a sense of community would provide students with sufficient security to enable them to disclose their concerns and interests, and if the teacher has the ability to recognize their educational potential she can contribute to extending and deepening them, and to making learning more meaningful and personally significant.

The interactive model may promote cohesiveness in a class because cohesiveness arises in situations where power is diffused. Cohesiveness is an attribute of a group and is concerned with the relation of individuals to the group, i.e. their feeling of belonging to the group. Cohesiveness is an appropriate process goal for a class group since cohesive groups work more effectively than incohesive ones, their morale and productivity are higher, leading to individual growth (Shaw, 1981). When there is a collaborative approach to decision making communication is increased and there is a greater use made of the resources of individuals who consequently feel more involved with the group. As involvement increases, feelings of trust and security also increase leading to cohesiveness. Since students participate in decision making they are more likely to satisfy their interests and needs and feel that they are valued, contributing members of a group.

Dialogue also helps to establish personal relationships which in turn support and sustain dialogue. A commitment to dialogue implies a commitment to honesty and sincerity in communication, concern for others and desire to understand their

point of view. Understanding should not be equated with uncritical agreement. It involves recognizing and accepting but it does not rule out a critical response or disagreement.

Dialogue requires more than intellectual effort. It requires "active sympathy" (Downie and Telfer, 1969) and in Freire's theory (1972b) "love, humility and faith" (p. 64). Dialogue also requires awareness by the teacher of herself and her own capacity to disclose her thoughts and feelings, to communicate with others in authentic and supportive ways (Thomlinson, 1982). This view is corroborated by Vandenberg (1969) who describes teaching as the "codisclosure" of possibilities in the world.

It is not easy and not always possible to establish and maintain dialogic communication, but the effort to do so is justified if one believes that its outcomes for the participants are personal and social development, in terms of a clearer sense of self-identity, greater self- acceptance and esteem, and greater awareness and understanding of others (Thomlinson, 1982, pp. 262-83).

A commitment to developing dialogue with students indicates acknowledgement on the teacher's part of the significance of this form of interpersonal communication for an individual's development. This position may be supported by appeal to existential phenomenology. In this context authentic existence is through dialogue (Matson and Montagu, 1967, p. 6). For Freire (1972b), dialogue is seen as an "existential necessity" and as "the way in which men achieve significance as men" (p. 61). By this Freire means that dialogue is the basis of individual and collective reflection and action by means of which people analyse their experience. Education is dialogic if its content is not imposed but "constituted and organized by the students' view of the world" (p. 81).

Upholding dialogue as a process goal of teacher-student relationships implies rejection of a master-apprentice or an expert-novice relationship which reinforce the powerlessness of students. They are expressed by the teacher being in authority or having the right to alone determine and organize the content of what is to be learned and the teaching-learning process, and to evaluate performance. Control of these decisions and the responsibility for making them are shared by the students and the teacher. In Freire's terms there is a dialectical relationship in dialogue:

> ... the teacher is no longer merely the-one-who-teaches, but one who is himself taught in dialogue with the students, who in their turn while being taught also teach. They become jointly responsible for a process in which all grow. In this process, arguments based on 'authority' are no longer valid; in order to function authority must be on the side of freedom, not against it. Here, no one teaches another, nor is anyone self taught.
>
> (1972b, p. 53)

Fostering democratic structures and procedures

The assumption that the implementation of the interactive model may lead to the emergence of a social environment which will contribute to the intellectual, social and moral development of adolescents has already been argued in this chapter. An additional assumption is that the teacher, through her role and relationships with the students, can foster the establishment of a democratic learning environment which will contribute to the students' political socialization and foster understanding and support for democratic structures and procedures. Democratic values and principles are implicit in the interactive model and the collaborative decision-making activities initiated by the teacher. The opportunity to participate in decision making may be regarded as "the crucial defining feature of a democratic school" (Scrimshaw, 1975, p.62).

The environment would not be permissive or a "meritocracy" in which decisions are taken only by those considered best qualified to take them (Lucas, 1976, p. 10). It will be democratic in the sense that it will provide for the free and rational discussion of issues and the resolution of disagreements by democratic procedures since hierarchical power structures and imposed decisions are rejected. It will also provide for the implementation of decisions which is particularly important for teaching responsible action. As Fielding (1973) notes:

> There can be no sense of responsible involvement if no actions are going to result, nor can there be any realization of what it means to make a meaningful decision, act on it and be prepared to be accountable for those decisions. Yet these experiences are the very stuff of democracy.
>
> (p. 223)

The justification for basing a model of curriculum development on democratic principles is ultimately a moral value - that is, respect for persons as previously discussed. However, there are also other reasons based on the expected beneficial outcomes of living in a democratic environment and on related assumptions about the relationship between school and society and the ideal society.

The positive impact of the democratic leader/teacher on individual and group behaviour has been documented by Lippitt and White (1958) and subsequent studies support their findings (Shaw, 1981). The behaviour and output of groups led by a democratic leader who shares planning and decision making with the group, gives help and guidance, and encourages group participation, compare very favourably with the behaviour and outputs of groups led by leaders who are either hard-boiled autocrats, benevolent autocrats or completely laissez-faire.

Groups led by a democratic leader are work-minded and capable of producing work of high quality even in the absence of the leader. Group members show a greater initiative, independence, friendliness, tolerance and co-operation than members of groups working under the other types of leaders. The impact of democratic leaders is noticeably superior in terms of their influence on the development of positive attitudes and values.

A democratic classroom is desirable from the point of view of its contribution to the development of democratic ideals and a democratic way of life. "Democracy", as Magee (1971) notes, "is not viable as a social system without citizens who understand its institutions and values and who are disposed to abide by the principles implicit in them" (p. 174). Efforts to involve students in the social/political process of decision making are consistent with the development and maintenance of a democratic society. One can refer to Dewey's (1916) theory of the relationship between individual consciousness and social life in support of these claims. For Dewey, the relationship between the individual's beliefs and values, knowledge and understanding develop through participation in social life. Social life itself evolves through the sharing of ideas and the critical appraisal and reflection of individuals, all of which requires an enabling (i.e. democratic) environment. The authoritarian organization of society prevents free and critical exchange of ideas which is important for the evolution of social life. The greater the interaction between individuals and their social environments which democracy allows, the freer the interchange of ideas and the evolution of social life to higher levels. Dewey stresses the social purpose of education in a democratic society when he writes that:

> Such a society must have the type of education which gives individuals a personal interest in social relationships and control, and the habits of mind which secure social changes without introducing disorder.
>
> (1916, p. 99)

He maintains that the structures of schools must reflect their stated democratic aims and sees them as providing "laboratories" for democratic learning where students could engage in democratic procedures and reflect on their experiences. He defines democracy as a social process, as an experience rather than simply a form of government, and the democratic ideal and the process of education are thus seen to be mutually reinforcing. The democratic ideal of education is "a freeing of individual capacity in a progressive growth directed to social aims" (Dewey, 1916, p. 98).

Participation in democratic processes may therefore be associated with social development in the sense that living in a democratic environment will foster understanding of democratic procedures and support for them, too, if they work well. This learning environment is obviously an ideal one since many of the social institutions outside the school, such as offices, factories, and government agencies, are not democratic and individuals have to abide by rules and regulations which they have not had a part in formulating. Thus the model is reinforcing selected, ideal social structures. However, this form of social education can influence students' expectations of social institutions and provide experiences which can link school experiences with subsequent tasks of participating and maintaining democratic institutions.

The importance of this link was corroborated in the legal judgement made in an American court case (Strike, 1982), "Tinker versus Des Moines". The case involved a student expelled from high school for protesting American involvement in Viet Nam by wearing a black armband. The judges' ruling of the case extended full constitutional rights of free speech (even if symbolic) to students on the grounds that they are "legal persons" whose rights have to be protected if schools are not to teach students "to discount important principles of our government as mere platitudes" (Strike, 1982, p. 121).

There may also be moral effects attributable to the political socialization provided by the interactive model, that of appreciating a wider point of view and of social integration. Democratic decision making induces students to take the perspective of others in a group, to consider the good of the group not just their own self-interest. As Dewey (1916) notes, experiences which "develop power to share effectively in social life ... [are] moral" (p. 360). The importance of this was recognized by J.S. Mill in 1859 when he wrote about the practical aspects of political education of people as

> ... taking them out of the narrow circle of personal and family selfishness, and accustoming them to the comprehension of joint interests, the management of joint concerns - habituating to act from public or semi-public motives, and guide their conduct by aims which unite instead of isolating them from one another. Without these habits and powers, a free constitution can neither be worked nor preserved.
>
> (Mill in Richardson, 1983, pp. 58-9)

The democratic environment generated by implementing the interactive model may be characterized as "humanistic" without the bureaucratic and "custodial" characteristics which alienate students (Willower *et al*., 1967). Democratic procedures help shape the classroom into a community as the students taking part in a decision would perceive it as their own

> ... and therefore regard it not as an alien event to be resisted, circumvented or manipulated but as an expression of ... (their) aspirations, to be supported and defended.
>
> (Lucas, 1976, p. 141)

By participating in decisions which affect their lives students become more skilful participants in social life (Pateman, 1970).

Values and Assumptions about the Aims of Education

It has been argued that participation in curriculum development in terms of the interactive model would contribute to the personal development of students. The issue of concern here is whether or not personal development in the sense described counts as education. In other words, is a person being educated by participating in interactive curriculum development?

Pring (1975b) suggests that we can elucidate the nature of education by identifying its aims. In his words:

> To talk of the aims of an activity is to clarify what the activity is. The aim is part of the meaning of the activity.
>
> (p. 21)

Pring claims that aims refer to the intrinsic or essential character of education. The functions of education or the uses to which it might be put are described as extrinsic or peripheral aspects. One may, therefore, speak of education as serving a child-minding function but this is not the aim of education. Child minding does not describe the essential character of education.

One can argue that personal development as an aim of education does describe its essential character and not a peripheral aspect, provided that one defines personal development as a multidimensional process. The concept is then sufficiently broad in scope to encompass narrower constructions of educational intent such as that expressed by those who advocate basing the curriculum on the forms of knowledge and define education in terms of intellectual development. Downie *et al*. (1974), for example, define education as the cultivation of the mind or of theoretical reason and the transmission of culture, giving the concept a narrow, cognitive focus. They

argue that self-determination and rule-following, as components of practical reasoning, are aspects of character and moral life and "need not be seen as educational" (p. 69).

Personal development as an aim of education rests on a number of assumptions about human development: that it cannot be compartmentalized, that it does not occur unidimensionally, and that one develops along several dimensions simultaneously. For example, social development is contingent upon intellectual, emotional and moral development. Intellectual development occurs in the context of personal experience in a physical and social environment and this experience has implications for one's total development. These assumptions imply a holistic integrated view of a person, not a fragmented one of a mind abstracted from the other dimensions of the personality with the capacity for independent development. To perceive education in terms of personal development is to recognize the phenomenon that the social relationships and the organizational structures of the classroom all combine to create a model of social life which students experience and which also contributes to their education in terms of shaping their consciousness and their social and moral values.

Criticism of a narrow cognitive emphasis in education also includes the view that over-emphasis on the development of the mind may be at the expense of the development of social and expressive capacities and leads to an unbalanced one-sided educational experience (Connell _et al_., 1975, p. 239). As Martin (1970) maintains, the disciplines "are not the whole of life, nor ought they to be the whole of education" (p. 80).

Broader definitions of education than intellectual development are available. A great deal of the literature on values education published in the last decade expresses the point of view that the development of values "is a major process in a child's life while at school and hence should not be

ignored by the curriculum" (Szorenyi-Reischl, 1980, p.93). Values education, particularly in the areas or social and moral values, is of increasing concern for a number of reasons. References are often made to the breakdown of public morality as evidenced by political scandals and the moral bankruptcy of public officials associated with these incidents (Nyquist, 1976; Scriven, 1975). Traditionally held moral values (e.g. with respect to abortion, homosexuality) are being questioned with the result that many people are confused about moral standards. The rising incidence of juvenile delinquency and crime at all levels of society, the rising rate of unemployment, the rapidity of social change which creates uncertainty and conflict, the decline of church influence in moral life, all these factors are seen to be contributing to social disintegration (Raths *et al*., 1966). There is also an increasing dissatisfaction with a profit-oriented society which promises fulfilment and satisfaction of needs through the consumption of goods and services. There is a disenchantment with science and technology which seem to create more problems than they can solve. Serious analysts of global problems such as overpopulation, exhaustion of the world's energy resources, pollution of the atmosphere and the threat of nuclear war, see the solution of these problems coming not from the realms of economics and technology but from decisions based on humane values, such as justice, concern for others, honesty, integrity and co-operation (Starratt, 1974).

Schools are increasingly seen as instrumental in social and moral regeneration through the development of programs of values education. Recent Australian reports on education (TEND, 1978; Curriculum Development Centre, 1980) urge schools to enter the field of values education for "its neglect in the curriculum may be regarded as a serious deficiency in many schools" (Curriculum Development Centre, 1980, p. 19).

In addition to references to currently held broader views on the aims of education, the focus on personal development may be supported by appealing to a variety of theoretical

positions. Dewey (in Silberman, 1973) describes education as "a process of development, of growth. And it is the process and not merely the result that is important" (p. 127). Education is compared to growth in life. The starting point for growth is the "native capacities" of the child. Growth transforms "existing capacities and experiences" and creates "conditions for further growth" (Dewey, 1938, pp. 28-29). Education consists of

> ... that reconstruction or reorganization of experience which adds to the meaning of experience and which increases ability to direct the course of subsequent experience.
>
> (Dewey, 1916, p. 76)

Experience is not narrowly defined. Dewey does not condone an over-emphasis on intellectual development. He points out that methods which

> ... in developing abstract intellectual abilities weaken habits of practical or concrete thinking fall as much short of the educational ideal as do the methods that in cultivating ability to plan, to invent, to arrange, to forecast, fail to secure some delight in thinking, irrespective of practical consequences.
>
> (1933, p. 228)

Dewey is also critical of regarding intellectual and moral activities as separate from each other and moral conduct as separate from everyday life. He asserts that:

> We need to see that moral principles are not arbitrary, that they are not merely transcendental; that the term "moral" does not designate a special region or portion of life. We need to translate the moral into the actual conditions and working forces of our community life, and into the impulses and habits which make up the doing of the individual.
>
> (1974, pp. 137-38)

Being knowledgeable about different forms of thought is not considered a guarantee of "good thinking". Good thinking is

seen to be also dependent on attitudes, values and motivation. For Dewey growth is towards the widening and deepening of conscious life linked with the development of an increased capacity to live as a responsible member of society "so that what he gets from living with others balances with what he contributes" (1916, p. 359).

In discussing the potential contribution of the interactive model to personal development it was argued that the social context and social processes were mediators of key aspects of development. In emphasizing the importance of the social dimensions of experience one can again appeal to Dewey who relates all educational questions to a social context:

> ... the individual is always a social individual, the self is a social product and is always subject to change through experience, which is always in some sense social experience.
>
> (Dewey in Skilbeck, 1970, p. 30)

Development is participatory and interactive. Through participating in social processes individuals acquire the capacity to reorganize their experiences and to play a part in reconstituting society.

One of the assumptions in the interactive model is that education has the potential for affecting social change since it can transform the consciousness of individuals and enable them to develop their skills to take control of their institutions and to formulate new patterns of social life. Society is regarded to be of man's own making and thus modifiable but its modification is not assumed to be meaningful unless people participate in its formulation.

The direction of the change desired is suggested by the interactive model itself - that is, a society which is more egalitarian, in which social relationships are more humane, where control over social and cultural institutions is more

evenly distributed among people, in which the individual is valued and the conditions of freedom required to develop individual abilities are provided. The aim is not, however, to develop "unattached" individuals but socially developed persons who recognize their interrelationship with others as the social dimension of their existence. The model is sensitive to the danger of "privatism", or the exclusive concern with oneself, one's immediate surroundings, family, close friends or social circle (Van Til, 1978, p. 65). Apple (1978b) also warns that a focus on private experience, in education, in the media, in literature, may have a hidden function, that of separating and controlling people.

An advocate of the interactive model obviously cannot claim that the education provided by means of this model would be value neutral. It can be, to use Freire's term, a "liberating" force, as opposed to a dominating one. As a dominating force, education is premised on the "banking" method which shares many of the characteristics of an oppressive society:

> The teacher teaches and the students are taught .... The teacher thinks and the students are thought about ... The teacher acts and the students have illusion of acting through the action of the teacher.
>
> (Freire, 1972b, pp. 46-47)

The students become the objects of the educational process, worked upon to achieve goals not subject to their control.

As a liberating force, education is concerned with the development of critical understanding of the social and cultural realities which shape one's life and with the capacity to transform them. Freire believes that education has formative powers in this respect and can play an important part in social change.

Development of critical understanding may be linked with a social philosophy which values persons being free to make choices and being in control of their lives, rather than being controlled by others or by social forces. It may also be linked with the desire to live life as a participant in historical and social processes rather than being propelled by them, and with being self-determining and living authentically. Such a social philosophy is common to pragmatists, neo-Marxists and existentialists. However, an advocate of the interactive model would reject the views of neo-Marxist theorists who assert that the social and cultural reproduction of unequal classes in capitalist societies is a result of the total determination of individual consciousness or "hegemony" so that individual freedom of action and social change are unlikely (MacDonald, 1977).

Such a view seems overly deterministic and depicts the individual "more as a social product ... than an active creator of reality" (MacDonald, 1977, p. 44). Williams' (1976) model of hegemony allows some room for change. He draws attention to the complexity of hegemony, that it has to be "continually renewed, recreated and defended; and by the same token ... can be continually challenged and in certain respects modified" (p. 205). Williams also argues that there are "emergent" aspects of culture which are not a part of the dominant culture. There are practices, experiences, meanings and values being continually created which are alternative or oppositional to the dominant culture. Recent studies in education have also shown that there is resistance to social and cultural domination in schools (Willis, 1978; Grace, 1978) which leaves open the possibilities of creating new forms of awareness through education which could bring about social change. This is the hope which would characterize an advocate of the interactive model.

Summary

The purpose of this chapter was to develop a theoretical framework to justify the interactive model. The chapter examined the contribution of the model to personal development particularly in terms of self-determination and the ability to make decisions. It also attempted to identify the values and assumptions which underpin and which may be linked with various components of the model - that is, the students' and the teachers' roles, and the views of knowledge, the learning process, the learning environment and the aim of education, implicitly or explicitly conveyed by the model.

The chapter discussed the psychological, social and political significance of the social relations of the classroom, and argued that the use of the interactive model would nurture personal development and make it possible to democratize the classroom and to eliminate relations of domination and powerlessness which contribute to alienation. The model was shown to be opposed to "authority roles that deny the subjectivity and power students have to create and generate their own meanings and visions" (Giroux, 1981, p. 84) and to be in favour of fostering in students the ability to learn without depending on an authoritarian structure.

The chapter also attempted to delineate the orientation of the values and assumptions identified to various theoretical positions and a wide range of them was drawn upon in support of the claims and arguments presented, indicating the strength of the model in that support for it is not limited to or dependent on established links with one particular theoretical framework.

The theoretical framework developed for the model draws upon arguments from moral philosophy, existential phenomenology, Dewey's pragmatic theory of education, humanistic and developmental psychology. Furthermore, by appeals to Freire's

theory of education and the new sociology of education, orientation to Marxist social theory and phenomenological sociology is also indicated. These positions are not incompatible with each other with respect to basic assumptions and values about human beings and their development, and knowledge and the learning process.

The theoretical framework developed may also be linked with a tradition of radical educational ideas whose concern is with increasing individual autonomy in society. There are several branches to this tradition (Spring, 1975) with which the framework of the interactive model has affinity, including anarchism, which seeks to free individuals from all forms of domination, and Marxism, which seeks to overcome human alienation in an industrial society and to achieve freedom from ideological control. Spring notes that it is a tradition held together by

> ... a common belief that power and domination by social structures depend on child-rearing practices and control, that the power of the state and economy rests on a submissive population.
>
> (p. 11)

The model is also oriented towards what Giroux (1981) characterizes as "strategy-based" educational reform. Its protagonists acknowledge the power and control schools may exercise to reproduce traditional hierarchical social relationships and inculcate in students "a form of domination that is deeply felt, lived or experienced as part of one's own history and self-formation" (Giroux, 1981, p. 65). The domination and control exercised involve both unconscious and conscious dimensions of the personality. The strategy-based reformers believe, however, that if classroom relations are changed to be less alienating and more participative and egalitarian, the likelihood of fostering a critical

consciousness of reality is increased. The advocates of such reform do not expect to change the fundamental structure of society but at least "contribute to changing the consciousness and drives of teachers and students who could then work to change society" (Giroux, 1981, p. 79). Thus the social change expected of strategy-based educational reform is cultural evolution toward a more egalitarian social order, not cultural revolution.