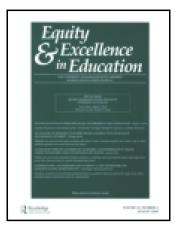
This article was downloaded by: [Purdue University] On: 21 January 2015, At: 23:56 Publisher: Routledge Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



# Equity & Excellence in Education

Publication details, including instructions for authors and subscription information: <a href="http://www.tandfonline.com/loi/ueee20">http://www.tandfonline.com/loi/ueee20</a>

Neglected Dropouts The Gifted and Talented

Elsie Robertson Published online: 09 Jul 2006.

To cite this article: Elsie Robertson (1991) Neglected Dropouts The Gifted and Talented, Equity & Excellence in Education, 25:1, 62-73, DOI: <u>10.1080/1066568910250112</u>

To link to this article: http://dx.doi.org/10.1080/1066568910250112

#### PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <a href="http://www.tandfonline.com/page/terms-and-conditions">http://www.tandfonline.com/page/terms-and-conditions</a>

# Neglected Dropouts The Gifted and Talented

Elsie Robertson

national public radio commentator said, "Dropouts are not necessarily an undesirable population." A British educator said, "I simply cannot understand why you Americans do not find it acceptable to complete formal education at age sixteen." A gifted young man said, "I stayed in school as long as I did because my friends were there." A second young man said, "What does calculus have to do with life anyway? It hasn't helped me balance my checkbook." A talented adolescent girl said, " My mother says that I'll be no one if I don't finish school. But I hate it. I just hate it. All I want to do is paint. That's all, just paint." A highly successful, gifted woman said, "My mother encouraged me to drop out of school. In fact, she helped me to start my own catering business when I was sixteen."

Researchers and field experts have written eloquently about both the increasing numbers of students who are considered to be at risk for dropping out of school and the major work and societal problems facing American high school dropouts. A significant number of those students who leave secondary school have several of the following characteristics: minority status, low socioeconomic status, limited ability to speak English, perceived low academic ability, and a host of other problems considered elsewhere in this issue.

It is estimated that 25 percent of all students drop out of school by age 16. It is also estimated that between 18 and 25 percent of gifted and talented students drop out. This number may appear to be insignificant when one considers that the gifted population probably represents no more than 10 percent of the entire student body; however in the eyes of many, this group represents a major loss of potential to self and society.

The predicament of gifted students who leave school is not well-documented; data on gifted dropouts are difficult to obtain from school officials. The students' personal, social, and academic situations may not be known or may not be understood by the family, school, and general community. A few researchers have categorized the gifted according to perceived characteristics, saying that some students may be predisposed to leave school for a variety of reasons (Betts & Neihart, 1988; Richert, 1982). In addition, there is little public sympathy or understanding for this group when one considers the overwhelming obstacles facing the majority of dropouts.

### Lack of Information Leads To Questions

Why has the problem of gifted and talented dropouts not been addressed? Since there is a dearth of writing on the subject, armchair speculation grounded in theory and based on the writer's experience with gifted students—will provide a context in which to ask questions regarding this population. A variety of theoretical perspectives weave an intriguing pattern of figure and ground as one considers the nature of the public secondary school, the nature of adolescence and identity development, the issues of self concept and locus of control, and current thinking in regard to learning styles and school achievement.

The purpose of this paper is to describe the similarities and differences between the gifted and more typical adolescent high school dropout populations and to derive implications for policy makers, practitioners, and families. The author's conversations, interviews, and experiences with a number of gifted students indicate that some gifted adolescents may be prime candidates for dropping out of school. Some may be more at risk by remaining in school than by dropping out. The following questions arise from this assumption:

- What is our responsibility as educators and parents to the gifted student who is thinking of leaving school?
- Is there a particular "type" of gifted adolescent who is more apt to leave school than remain?
- Under what conditions is it appropriate for a gifted adolescent to leave school?
- What supports need to be in place for such a move to be successful?

One might question the benefit to be derived from studying this admittedly small percentage of the population. However, if there is a fundamental flaw in the educational system that contributes to both the general and gifted dropout phenomenon, gifted students' ability to conceptualize, generalize, and articulate their perceptions may provide information needed in order to make changes.

# Identity Development and Moratorium

The adolescent task is one of developing an identity (Erikson, 1968 & 1959). A significant part of this process occurs within the educational setting, usually a public school. In common with prisons and mental hospitals, public schools are institutions (a) that do not have any choice in their selection of students (clients) and (b) in which the students (clients) have little or no choice regarding participation (Carlson, 1964; Hoy & Woolfolk, 1990). Current social and educational changes have promulgated the secondary school as the major social system in which the adolescents develop (Coleman, 1960; Elder, 1975). "High School," says Sizer (1984), "is a kind of secular church, a place of national rituals that mark stages of a young citizen's life. The value of its rites appears to depend on national consistency" (p.6).

One goal of high schools is to produce a student product—to graduate young people who do well on standardized tests (specifically the SAT), and who can take their places in society as workers, community members, and as adults capable of making life decisions and commitments. During the four years allotted to the high school to form and polish this product, adolescents—who are required by law to be in a place they may or may not want to be are in the process of trying to perceive themselves as people who are comfortable with their bodies, as people able to make long range career and life plans, and as people who are able to anticipate positive recognition of accomplishments from others (Erikson, 1968; 1960).

Erikson (1968) asserts that the task of identity development is a lengthy one that is reworked throughout life, and that, at its optimum, identity

is experienced merely as a sense of psychosocial well being. It's most obvious concomitants are a feeling of being at home in one's body, a sense of knowing where one is going, and an inner assurance of anticipated recognition from those who count. [p. 165]

He also points out the need for a moratorium (1980; 1959), which he defines as "a period of delay in the assumption of adult commitment" (1960, p. 263). During this period, the adolescent may need opportunities and experiences not usually found within the parameters of contemporary adolescent life and routine. According to Robertson (1988),

Erikson suggests that for a number of adolescents, commitments are delayed because of an unconscious need to avoid identity foreclosure; he further suggests that the difficult and often painful process involved in a prolonged search for identity may result in a more integrated, full functioning personality. [p. 74]

There appears to be a tension for some students between their need for process time and the school's need for products. A small number of studies (Archer, 1982; Meilman, 1979; Munro & Adams, 1977) intimate that, for some American adolescents:

- a strong identity crisis does not occur until late adolescence and
- identity development is a more gradual process than projected by Erikson and may be only partially completed in the early 20s.

As shown in Table 1, Marcia (1966) has developed a two dimensional matrix for locating adolescent's ego identity development, labeling the adolescent as being in a state of achievement, moratorium, identity diffusion, or foreclosure. Identity achievers have been through a crisis, are able to make decisions based on their own wants and needs, and can adapt to environmental influences. Adolescents in moratorium are in a crisis state and are actively struggling to make commitments; they can best be described as being in process. Adolescents in identity diffusion may or may not have experienced a crisis, but are not committed to anything. The fourth row in the table is allocated to adolescents in foreclosure. These young people have not been through a crisis but appear to be committed to those goals expressed by parents or others.

#### Table 1: Categories of Ego Identity Development

	Has made a commitment	Has not made a commitment
Has faced or is facing a crisis	Achievement	Moratorium
Has not yet faced a crisis	Foreclosure	Identity Diffusion

The importance of the moratorium period is described as paramount in facilitating healthy identity development (Hummel & Roselli, 1983; Meilman, 1979). Muus (1989) describes moratorium as a necessary "wanderlust," while Torrance (1971) muses,

One thing seems sure. A period of wandering seems necessary. There has to be freedom to wander, to experiment, to risk, to find out what is possible, to discover one's limits, and to decide what fits. [p. 154]

"Children and adolescents in their presocieties," says Erikson (1960), "provide for one another a sanctioned moratorium and joint support for free experimentation with inner and outer dangers (including those emanating from the adult world)" (p. 127).

Schools do not appear to support this need for moratorium time; rather "Schools seem to be encouraging foreclosure since they demand conformity to the way things are and submission to authority, rather than aiding the adolescent in his search for a personal identity" (Muus, p. 82). Thus students are questing for an identity and need the time and space to wander, but are spending six to eight hours a day in an institution not of their choice, constantly bumping up against a system that fosters and encourages submission to authority; is it unreasonable for them to drop out of school?

# Learning Styles

ccording to Muus (1989), schools may not present curricula in a manner that is relevant to the adolescent who is developing an identity. Schools may also not present curricula in a manner that is consistent with the learning style of the gifted student. The learning style literature indicates a number of modes by which one learns. These modes, frequently derived from Jungian typology, tend to be couched in catchy simple phrases, numbers, or letters. In essence, most say that one takes in information in a certain way, then processes and puts information out in a certain way. Most people prefer one mode of reception and one mode of expression, but all function in a variety of modalities (Gregorc, 1982; Lawrence, 1987; McCarthy, 1980; Myers, 1976).

Gregorc has described two ways in which we differ from each other in terms of how we process information. One of the differences has to do with our preferred level of abstraction. He asserts that some of us focus on our abstractions of information or reality, preferring to learn concepts deductively---by listening to or reading a presentation about their basic underlying principles or about how they compare to other related concepts; similarly, those of us who are abstract information processors prefer to learn skills by focusing on each of their constituent components as well as their interrelationships. In contrast, others of us focus on concrete events, experiences, or objects, preferring to learn concepts inductively-by immersing ourselves in encounters with objects or situations that demonstrate the ideas involved; similarly, those of us who are concrete information processors prefer to learn skills by alternatating between watching others perform the skills and engaging in trial and error experiments.

The other difference has to do with our preferred orientation toward order. Gregorc asserts that sequential information processors prefer to work in an logically organized environment and to carry out tasks in a logical sequence, while random information processors prefer to work in a stimulating environment and to improvise how they carry out tasks.

These two dualities produce four modes of processing information: abstract sequential, abstract random, concrete sequential, and concrete random. Each of these styles has strengths and weaknesses; most people, he believes, have a proclivity for one of the modes, although all are present. According to Cray-Andrews (personal communication, 1991), the extent to which any mode of information processing is predominant in a population depends on the cultural values of the society in which that person lives. In American society, to a certain extent, our public school system tends to teach to the concrete sequential child in elementary school and the abstract sequential adolescent in secondary school. Random child and adolescent are not valued within the school setting; however, there are societal kudos for adults who process information randomly, if the activity is societally appropriate.

Concrete sequential elementary school students have neat desks, can always find their books, pencils, and homework, come to school on time, follow directions as given by the teacher, do their work—which can be read without struggle—quietly at their desks, are prepared for tests, and complete their work in the appropriate order. Abstract sequential secondary school students have a defined choice of term paper subjects in mind, prepare appropriate outlines for term papers and other work, research their subjects extensively and on topic, work carefully and competently within defined class time limits, and are prepared for the school day and schedule like the elementary school student.

Elementary and secondary level concrete random students, on the other hand, are not concerned with teachers' needs for routine and order. They march to their own drummer in terms of what they will learn and how they will learn it. They plunge into activities of their own choosing, working on them until they are satisfied, and then drop them. They do not stop reading or working with the manipulatives when the time is up; they defend their viewpoints to the last gasp, if it seems important to them at the time. Their desks are a mess; the dog may very well have eaten their homework. Test taking is a waste of time for elementary school concrete randoms and an interruption in the process of personal learning to high school concrete randoms. Their projects are creative, unusual, and thought-provoking when and if completed.

Gregorc (1982; 1980) seems to speak particularly to the gifted and talented child who may be most apt to drop out of school when he discusses those who mediate meaning in what he describes as a concrete-random style. These children live and think in a time frame he labels "now." "Now" includes the total of the past, present, and "seeds for the future," using the concrete world of the present to jump ahead into a future that is already real to them. They are uniquely creative, make intuitive leaps, abstract major points, and move on to the next point before a speaker is through presenting. They also "butt in" because they know what is coming next; they finish jokes even though they have never heard them before. They tend to be natural leaders, in part because they dislike conflict, and are frustrated when not in this position. "Collectively," Gregorc says, "they are trouble." Concrete-Randoms frequently write and speak in run-on sentences; their minds work faster than their conscious thoughts and their ability to express those thoughts. "Don't ever say don't to CRs; they perceive it as a challenge!" Reading directions is a sign of weakness. They are fiercely independent, and rarely accept outside authority; they have a strong internal locus of control.

Crav-Andrews (1990), examining gifted students according to Gregorc's mediation style (1982), has found that children described as concrete-random are the most difficult to teach and to evaluate. They are also, she says, the most original and creative students; they do not care about grades, or whether they pass or fail a specific subject. They do what they do when they want to, in their own way, and to their personal satisfaction. They tend to be aware of the consequences of their choices and are willing to accept responsibility for their actions. They are frequently labeled underachievers and are perceived as behaving problematically. They perceive teachers as equals, although their perception may not be reciprocated. She says that games are a favored learning technique and that both independent study and learning situations in which they can use their leadership skills are important to their success.

A number of gifted students appear to think and function in a holistic, pattern-oriented, global manner. Routine, rote, sequential tasks are anathema to them. Redding (1990) acknowledges this pattern of thinking and doing, yet insists that these student be remediated, and be taught specific strategies to successfully complete sequential work in order to achieve in the classroom. At the same time, he also says that "it should be recognized that because these underachievers may have learning preferences and study skills that hinder performance in typical school tasks, but which may be beneficial for creativity and higher order thinking, their actual grades may underestimate their true academic potential and undervalue their creativity" (p. 74).

Biographies of gifted and talented scientists, writers, performers in the visual and performing arts, business magnates, and athletes reveal that a number of them were either formally educated outside the public school system or that they dropped out of school from the elementary years on through secondary school. The Gershwin brothers may be of particular interest: George was a high school dropout, while Ira completed both secondary and post secondary school (Toby, 1989). One might conclude from the biographical studies that a standard public school education could be inappropriate for some gifted young people and appropriate for others. Some gifts and talents may be forever unrecognized or unfulfilled because their possessors remained in an inappropriate public school environment.

# Locus of Control

t might be assumed that students who process information in the above-mentioned style perceive themselves as being in control of their own destinies, both inside and outside the classroom, whether they are labeled gifted achievers or underachievers. Davis (1984) suggests that gifted underachievers have problems with authority due to their strong internal locus of control. This strong drive, she says, is an indication of an inability or unwillingness on the part of the student to recognize who is the boss and to act accordingly. Yet an alternative possibility is that these students are well aware of the hierarchy but that they choose not to follow intellectual and developmental dictates other than their own.xxx

Locus of control is also mentioned by Betts and Neihart (1988) when they neatly profile gifted children into six theoretical categories. The categories include the successful, the challenging, the underground, the dropout, the double-labeled, and the autonomous gifted student. Pertinent to this discussion are the categories successful, challengers, and dropouts. Successful gifted students are profiled as externally motivated; they depend on others for approval but are "loved by teachers and admired by peers" (p. 250). In contrast, both challengers and dropouts are described in terms indicating a strong internal locus of control. Challenging students question, are direct, and stand up for their convictions; adults find them irritating while peers find them entertaining; eventually, some challengers become dropouts. Gifted dropouts are perceived as being angry and burnt out, yet they pursue outside interests and are creative; both adults and peers have negative reactions toward them. Perhaps there is a relationship between mediation style and locus of control; more specifically, perhaps challengers and dropouts are primarily random information processors.

The relevant policy question is: Should students change their learning style in order to meet the set needs of a bureaucratic system if their current, preferred style fosters development of higher order thinking and facilitates their creative development? And, rephrasing an earlier policy question, is it reasonable for students to decide to leave school rather than to continue in a system that denies them their talents, particularly when they have a strong internal locus of control?

# Need For Meaningful Work

Schools may not present curricula in a manner relevant to adolescents who are developing an identity nor in a manner consistent with the learning style of some gifted students. Schools may also not present curricula in a manner relevant to adolescents who, in the course of identity development, are searching for meaningful work and the opportunity to make some contribution in the real world. A few researchers (Hruska, 1980; Muus, 1988; Robertson, 1988; Sizer, 1984) indicate that school activities are not relevant to the lives of these students, that the process of identity development supersedes the requirement to study material from which they can see no benefit. Adolescents want challenge, they want to learn, but they want to do this in a manner consistent with their needs. They want meaningful work, but are not currently finding it at school.

When one begins to discuss meaningful work, the definition of the term appears to depend on the speaker's perceptions of self and relationship to the world of work. "Slinging burgers is not my idea of real work," said one young lady, yet "hostessing in this restaurant makes me feel very good about myself and I know I'm doing a good job." For others, a range of activities from "slinging burgers" to professional catering was considered real work. When students spoke about their work, it became clear that personal satisfaction and a feeling of usefulness, of being needed, was as important to them as the money. Personal satisfaction seemed to be derived from work that involved both some responsibility and authority, and the opportunity for interpersonal interaction. They needed to see the results of their work, whether a service performed or a product put to use.

The meaningful work accomplished by some of these gifted students may not be work directed toward acquiring future marketable skills in the adult world. However, it may be meaningful in the sense that it provides them with moratorium time in which to explore a number of work options without a large measure of commitment in preparation for future career development. For students whose focus is directed outside the regular curriculum, meaningful work may very well be making music, building with scraps, tying flies, or preparing food.

At least one part of schooling appears to be relevant to adolescents, although it is not formally acknowledged as a part of the curriculum. The school is a major institution within which there is a major opportunity for adolescents to develop social interaction skills, to anticipate recognition from others, and to become comfortable with a number of different people. Extracurricular activities, usually of a non-competitive nature, offer adolescents an opportunity to be with their friends, to take part in activities that are relevant to their lives, to test their developing social skills, and to anticipate recognition from those who count within their peer group.

Once again rephrasing a fundamental question: If gifted students do not place much value on academic success and see their identity evolving from other arenas of life, is it unreasonable for them to drop out of school in quest for self and success in the real world? A related question might be: What is the cognitive cost to students who remain in school simply for the social interaction, or out of deference to their parents and to social convention?

#### Sense of Self

Schools may provide a milieu that either promotes or hinders the development of a positive sense of self. Curriculum may or may not encourage cognitive growth; it may not be perceived as meaningful work by the student. Teaching techniques may or may not foster active learning. Social and extra curricular situations may or may not foster the development of interpersonal skills. In sum, life within the secondary school system in its current guise might foster the development of either a positive or negative sense of self.

Self concept is one of the few variables examined in both the gifted and the dropout literature; gifted and average achievers are generally held to have a positive sense of self while gifted underachievers and dropouts are considered to have a poor self concept and to have low self esteem. The low self esteem generalizations are challenged only by French (1966; 1969) in relationship to gifted underachievers, and by Fine (1986; 1983) and Gilligan (1990) in regard to female inner-city dropouts. Might some gifted adolescents drop out of school because their sense of self will not allow them to remain in a situation that is not fostering their ability to grow and develop in an appropriate manner?

#### **Emergence of Possible Patterns**

ifted dropouts are perceived as having high abilities, whether or not they are being realized. They tend to come from a higher socioeconomic level, have more stable families, and speak standard White English as their primary language.

The gifted literature examines the relationship between learning styles and achievement and suggests general interventions, yet does not appear to relate this in a prescriptive manner to the specific curriculum offered to the students. Hansen (1991), in discussing non-prescriptive curricular directions, says that a prime example of general intervention might be a directive to "leave the final project open-ended to accommodate the child's style and allow for appropriate experimentation on the part of the child." A thematic unit on animals that might also involve the teaching of research skills might have the researched topic presented in a variety of ways—written report, dance, drama, cartoon, etc. The dropout literature devotes minimal attention to learning style issues.

Some gifted literature labels students "gifted" or "atrisk," with the attendant expectations of each label. The gifted population has also been profiled and categorized by personality types that carry both positive and negative connotations (Betts & Neihart, 1988; Richert, 1982). The typical dropout population appears to have been profiled and categorized by situations and events rather than by personality traits. This implies that there is little or no personal responsibility for dropping out on the part of the general at-risk population, and almost total personal responsibility for dropping out on the shoulders of the gifted adolescent.

Similarities between gifted and typical dropout populations include the search for relevant curriculum inside the walls of the high school, the attempt to make sense of school within the context of their lives, and the need to have meaningful work and relationships in their lives. Such individuals apparently perceive no purpose to the education being offered; regardless of whether it is a "back to basics" curriculum, an advanced level course, or a course offered in a vocational education center, it does not relate to their lives or their experience.

Other similarities are more subtle. In the sense that meaningful work and the development of relationships are part of the identity development process, the literature indirectly addresses the general adolescent issue of identity development when it discusses work motivation as a rationale for dropping out, lack of relevance between school curriculum and adolescent life, or the importance of school as a social gathering place rather than a place of intellectual rigor and learning. It might also be inferred that in terms of their development, gifted and typical dropout adolescents are in either a moratorium, foreclosed, or diffuse status since they are not actively working toward the school's goal of obtaining a diploma.

The personal issues of learning style and locus of control are painted with an even more ambiguous brush. Neither the gifted nor the dropout literature appear to address these components of cognitive and affective development as they may impact student retention in school, although they are mentioned in relationship to achievement and motivation.

The one similarity that is clearly examined for both populations is that of self concept. As discussed earlier, a small body of research disagrees with the conventional wisdom that the gifted underachiever (a potential dropout) and the general dropout have poor self concepts and low self esteem.

None of the above is meant to imply that those gifted students who remain in school are having their needs met by the system. Indeed French (1966) is rather clear in saying that the self concept of gifted dropouts tends to be somewhat higher than that of those who remain within the system. As said before, Fine (1986; 1983) and Gilligan (1990) indicate that the self concept of girls who drop out of school is initially higher than that of those who remain; however, the consequences of dropping out for them are more severe than for those who say in school. Perhaps some of those who remain in school might be described as being identity foreclosed or diffuse, with diffusers either remaining passively in the system, or alternatively, passively dropping out.

Given the similarities and differences, what tentative conclusions might be drawn about gifted and non-gifted high school dropouts? Both adolescent populations are undergoing the process of identity development and are therefore experiencing an evolving sense of self, whether positive or negative. Also, both populations may not want to be in an educational arena that is not meeting either their educational or developmental needs. Finally, both populations want meaningful work even through they probably have not yet formulated long term career goals, at least as adults perceive them.

On the surface, the stated reasons for dropping out may appear similar: to find a job, to marry, to have a child, or to leave an irrelevant or hostile school environment. However, the underlying motivation appears to be qualitatively different, and may be interpreted in terms of a hierarchy of needs (Maslow, 1971, 1954). Gifted dropouts appear on a self-actualizing quest; the wanderlust is a means to an end that may not be fully understood, but is an affective and a cognitive component of identity development as they strive for their niche in the world. Non-gifted dropouts are escaping from the hostile academic world, viewing the real world as less inimical to them than school; for them, the act of dropping out is one of necessity in order to survive, an act that may lead to the development of a positive sense of self as survivor or a negative sense of self as loser.

A critical philosophical as well as pedagogical issue for those who work with students who are engaged in either the process of survival or the quest for self actualization has to do with the inequities of life between the majority of gifted dropouts and the majority of non-gifted dropouts—the environmental and societal factors addressed in the general dropout literature that separate the haves and the have-nots. Freedom to pursue one's identity outside the sanctioned school system implies that there is a positive choice for the gifted dropout that is unavailable to the non-gifted dropout. Basic life assumptions and attitudes of teachers are differentially manifested toward gifted and non-gifted students in classroom actions, strategies, and techniques.

Gifted dropouts tend to have more supportive families, have more money, come from a value system that encourages self expression and development, are nonminority, and speak English as a primary language. They may be perceived as "late-bloomers," and when they are ready to complete formal education, they do so, frequently with support from their families and the educational institutions involved. Non-gifted dropouts have a more difficult time; their return to the education process is spoken of in terms of "recovery rate," as though they were either something to be salvaged from a dump or people with a terminal illness. The GED program and a limited number of Federal job training programs appear to be the only path to further education. The families of these adolescents are also trying to survive; there is limited energy to help their children evolve out of a life-style based on minimum wage, entry level, unskilled work in a society that consistently praises the benefits of education.

#### Interventions

ntervention implies that change will take place; change is frequently difficult, particularly when dealing with systems, bureaucracies, and societies. Just as the Chinese character for crisis combines the concepts of danger and opportunity, the few interventions discussed here involve both danger and opportunity, given that they require a perceptual shift in how the dropout phenomenon is perceived. At the same time, it might be said that the extent to which one is able to reframe this perception is, in part, dependent on the ability to change deeply held assumptions and attitudes regarding the purpose of education and its relationship to the optimum development of the whole person.

The locus of change may differ, depending on whether one is considering the greater society, the local community, the school system itself, or the students within the local system. While the arenas in which change can occur do not exist exclusively in any of the above domains, one arena might prove more effective in fostering change than another. The appropriate arena for societal change rests in the development of national policy, which should include an equitable, sane approach to the education of our young. The arena in which local communities build upon federal and state policy has to do with the capacity of a community to nurture, foster, and fund the appropriate educational system. Both local school systems and their students have an impact on change within the culture of the school and the curriculum itself.

The political power structure at all levels is clear in its position regarding children's needs: they have no power, they have no money, they have no vote. However, within any specific school system, the major dissenting behavior of dropping out is one way of making dissatisfaction known to the adult community. Students probably have the greatest opportunity to exercise power in the curricular domain. Although they may not be able to choose what they study, they can choose not to do the work and to focus on other things. The ultimate anti-curricular weapon is the act of dropping out.

One could argue that dropping out is a form of intervention, especially when the adolescents involved are responding to their own personal perceived needs, drives, and ambitions. Whether family, educators, or society condones the action and whether the motivation behind the action is positive or negative, the adolescents are making decisions that appear appropriate to them within their particular developmental framework. The price they pay in society's dollars for listening to their own voices and following their personal quest (whether for survival or self-actualization) may be high, but it appears that one fourth of this nation's students, including a percentage of the gifted, are willing to take the risk and bear the cost. It may also be important to remember that the previously mentioned characteristics of concrete-random gifted dropouts, which may give them the freedom to explore alternative identity development paths, may also empower some of the more typical dropouts in their attempts to become free from their environmental and societal restraints.

#### Policy

t the same time it is bemoaning the number of dropouts, the greater society (including politicians, educators, and others who claim to be interested in the well-being of young people) does not acknowledge that today, more young people graduate from American high schools than ever before. We do not acknowledge that it once was considered valid to leave high school for work or life exploration. In 1990, leaving high school for whatever reason, without obtaining the coveted diploma, is considered a negative act, one with dire consequences to both student and society.

According to Toby (1989), the word dropout is nonexistent in Sweden. Students who leave school before the appointed time are thought to be "school tired;" it is assumed that they will return when ready. There is no stigma attached to leaving the formal education process during adolescence. The British have formalized a process by which one's formal education may be considered complete at different ages; again, there is no stigma attached when one chooses not to attend a university.

At-risk gifted students, when asked to describe an ideal school, have said clearly that "no one should have to be there who doesn't want to be there." They indicate that work in school, even at the secondary level, should involve concrete, real materials—that problems should relate to what is going on in their lives, their communities, and their world. They want recess; they want time to think and daydream, to ponder relationships between what is and what could be, and then to transfer that learning into the realm of everyday experience. When that doesn't happen, students say they do not want to be in school; they prefer the real world, harsh though it may be. Toby (1989) agrees with these students when he says, "in the tradition of George and Ira Gershwin, I favor giving 15 year-olds the responsibility for choosing between really studying in a real school and doing something else, like working."

One possible policy intervention could be the development of a national educational position on school leave, giving adolescents permission to experience the real world before completing their education. The nature of the leave would be structured according to the needs of the individual, would be planned, and would have a purpose. It would be assumed that the adolescent would eventually return to some form of formal education; documented leave experience could serve as an alternative means of assessment of knowledge. It could take the form of universal service, a hands-on project within the local community, or working in a business, entertainment, or athletic milieu.

It is perhaps parenthetical to mention that on a societal level, the media implicitly sanction dropping out for those who have reached certain creative, athletic, media-related, or entrepreneurial heights, while it reserves harsh criticism of the dropout for those who are unsuccessful or unlawful in society's eyes. Perhaps current philosophical and curricular notions are evolving at a more rapid pace than is comfortable for the power structure.

#### Culture

n important dimension of the culture of a school is respect for self, for others, and for the school Lenvironment. All people need to be respected. As they tentatively begin to assert their evolving identity, adolescents need to find respect from two sources: adults and peers. The important adult world includes parents, teachers, and employers. As one grows older, the need for peer group respect naturally increases in importance. The trend may be accentuated in this society by the everincreasing separation of adolescents and adults in their respective spheres. The extent to which respect from peers is given disproportionate weight by adolescents is determined in part by the lack of respect they perceive that they receive from adults. If adolescents believe that those adults responsible for either their affective or cognitive development do not listen, do not hear, or otherwise acknowledge their attempts to work, to relate, or to communicate, they rely more heavily on their contemporaries for this recognition. Perceived disrespect from administration and teachers breeds disrespect for administration and teachers, with attendant attitudes and behaviors. It does not matter whether the adult respect is actually lacking; the perception of a lack of respect is the basis for action.

The extent to which social relationships become more important than curriculum within the culture of a school appears to be inversely related to the extent to which the school changes to meet the students educational needs. If the words of a number of gifted dropouts are to be believed, social relationships were the main reason they remained in school as long as they did. The relationships included certain respected teachers and other adults as well as peers. "I really liked her;" "I had a lot of respect for him;" and "They understood where I was" were comments heard frequently from this group of gifted at-risk students.

The culture of some schools does not foster respect, nor does it acknowledge the adolescent need for social interaction. Teachers lecture to silent students; classroom discussion is limited; three minutes is the time allotted to passage between classes; lunch periods may be 20 minutes long; the school day is broken up into many segments.

Gifted children are qualitatively different from others, and those who are potential dropouts are qualitatively different from other gifted children; some of the differences have been discussed earlier. Once again, questions might be raised. Does the culture of the school respect and value diversity, individual, and/or group differences?

# **Cultural Intervention**

pen and honest discussion within a school system, planning a school philosophy that will take into account differences and similarities, and then collaboratively implementing the decisions that result from discussion and planning collectively constitute a first step in changing a school culture to meet the needs of a wide range of students, including the potential gifted dropout. Curriculum is then based on the school values, philosophy, mission statement, goals, and objectives. This process implies that responsibility and authority are shared within a system. At the same time, a value-based school philosophy gives administrators and teachers a framework from which to examine the structure of the school day and determine what type of structure best meets the needs of the developing adolescent, academically and socially. The system may continue to operate within a formal structure; however, the purpose for the structure needs to be made clear.

# Curriculum and Instruction

B oth gifted and at-risk students are clear when they discuss the irrelevance of the curriculum. It would appear that in the eyes of a number of students in the public school system, the curricula of secondary schools are not grounded in purposeful experience, the student has little or no active role in its design and

implementation, and by extension, school and what it teaches have limited value and purpose; it is a group of experiences strung together that are taught because it will be important in the unspecified future. "They tell me I will need it in college. I don't know what I want to do tomorrow; forget college." How many times must we listen to this cry before we pay attention?

It might be suggested that we return to the past and listen once again to John Dewey who, many years ago, spoke passionately about the relationship between experience and education, saying clearly and articulately that education must be based in real-life experience, the conditions of which are used as sources of problems to be studied and solved, and which must be able to be extrapolated and extended purposefully into the future.

There is no point in the philosophy of progressive education which is sounder than its emphasis upon the importance of the participation of the learner in the formation of the purposes which direct his activities in the learning process. [Dewey, 1938 p.67]

Dewey's notions integrate well with Erikson's perception that adolescents need meaningful work, whether the work be in school, at home, or in the community. His approach to education sounds very much like it would als ontegrate well with the concrete-random's "view of time" described earlier. Dewey's views fit nicely with the Swedish practice of leaving school for a period of time to experience the real world until one is ready to return to school, since purposeful, experience-based education might involve working or exploring in the real world.

They are also compatible with the vision of one group of gifted at-risk students. As perceived by these adolescents, the ideal school is one in which students were there through choice, and one that included opportunity for daily recess "just like in grade school." They wanted curricular options based on "the real world, or at least some way to see what it's all about." They wanted to do and to have others see what they did. They wanted to be encouraged, to be given the opportunity to talk, and to be heard; they wanted to work both alone and in groups. They wanted their work evaluated on it's own merits and not arbitrarily graded. They discussed an ideal physical environment, but one sighed and said, "Public school kids don't need to be comfortable. They're just here to learn."

Why should curricular changes be made at all? It could be argued that the gifted/talented dropout population is too small to worry about, too insignificant a number to warrant major change in perspective and action. However, if the characteristics of the concreterandom gifted population (the one that seems at most risk for dropping out) are also shared by a portion of the general dropout population—in that there are adolescents in both groups who tend to have a strong internal locus of control, tend to be creative, tend to have leadership potential, and tend to look upon teachers and other authority figures as equals—the numbers are no longer insignificant. These characteristics may point the direction for developing appropriate curricula, with attendant changes in teaching strategy, that may not only meet the needs of the gifted at-risk population, but also those of the general at-risk poluation.

In general, it appears that the gifted potential dropout needs the following: an experiential learning process, individual projects of the students' own choice, challenging and difficult problems within the real world, some competition and challenge from others, the ability to make decisions for self regarding what will be learned and how it will be learned, and opportunity to be allowed to be responsible for the consequences resulting from those decisions. Gifted students who may drop out of school need to work with a teacher who models a consultant role or works as a "smart colleague" in a mentor relationship. Above all, students need time in which to think, to daydream, to create the products of their learning, even though they may not care about the product once it is finished, or, in fact, may drop the project when they have learned from it what they set out to learn. John Dewey believed that "even building sand castles in the air" can be learning with purpose; why do we not give our gifted students time to do this?

Ideally, the curriculum design would have three major pieces. First, subject matter needs to be based on real life needs and experiences. "I need to find a job." "I need to understand my parents." "I need to learn how to organize my time." "I need to balance my checkbook." "I need to learn how to read." "I need to understand why war happens." "I need to understand why my brother and sister hate each other." Secondly, the issues need to be experienced and studied through an interdisciplinary approach. Each of the above topics, based on studentgenerated interest, can be related directly to mathematics, science, humanities, language arts, etc. Thirdly, the issues to be studied also need to reflect a value-based theme representative of a philosophy that has been decided on by the class, or indeed, the entire student body, e.g., respect, honesty, idealism, or friendship. This threepronged approach has been successful in a number of elementary schools; it requires a major commitment of time and energy on the part of administration and faculty to initiate the process. Once in place, changes in attitude, actions, and achievement are noticeable (Lickona, 1990, 1990A).

Each topic or issue emanates from student need or interest. Each can be approached from a number of points of view or subject areas. Each has a value of its own that can be related to a major value of the school culture. This approach to education represents a major shift from the way schools traditionally present curriculum, yet seems to meet the needs of some gifted students who are potential dropouts.

#### Practical Interventions: A Two-Edged Sword?

n a more practical level, there are a number of designs that might motivate the potential gifted dropout to remain in school, or at least to remain actively engaged in the process of formal education. There appear to be three major headings under which such designs fall: learning outside of the traditional school setting, magnet school settings, and reorganization within the traditional school setting.

Learning outside the school setting might include programs such as Outward Bound, or living and working in a farm setting, on a ship school (Shanker 1990), or in a hotel, with teachers facilitating the formal learning process as it emerges from the daily routine. (Woodring, 1989) has suggested that a revival of the depression era CCC (Civil Conservation Commission) would both challenge and teach adolescents. Experiential learning is the key to this particular model; the student learns through doing; the hands-on activity gives meaning to the learning. It is learning with a purpose.

Magnet schools tend to match the student and a particular skill, talent, or interest. Such schools are found in a number of urban areas; they may be either public or private. Their specialties range from the performing arts through the sciences to skiing. Magnet schools do not currently appear to meet the needs of students whose gifts are of the "hands on" variety; there are no magnet schools for model builders, automobile mechanics, or pastry chefs. Development of these gifts may in fact be hindered for some students by offering them as part of a vocationaltechnical program within the public school system. Since gifted students tend to be directed into academic, college preparatory courses, they may not be able to participate in an experiential program of their choice. It would seem reasonable to offer students the opportunity to spend a percentage of their time in both academic and experiential programs; however, the nature of classroom "scheduling," school bus scheduling, and the current structure of the school day preclude this arrangement in a number of schools. If entry into vocational-technical departments were competitive, one wonders whether (a) their prestige would be increased and (b) whether more spatially and kinesthetically gifted students would remain in school.

Within the school, there are a number of options. Chief among these is the option called homogeneous grouping, according to either ability (commonly called tracking) or interest. Ability grouping has come in for some bad press lately; it is considered to be elitist and to be one factor in the high dropout rate for the general population. It is critical for the gifted adolescent to be with people of like ability, at least some of the time; it stimulates thinking and promotes lively discussion among students who can process information on the same level.

Another form of grouping is known as SWAS or school within a school. This is a popular remedial process for the general at-risk adolescent student, yet it has been in place for the gifted under the rubric of "pull-out programming" or "the gifted class" for a number of years. SWAS students differ from those defined as gifted in that they are grouped homogeneously according to academic need (deficiency) rather than by interest or academic ability. It is ironic that the same structure is both praised and reviled at the same time depending on the student population.

Independent study is another option for the gifted student; it may or may not be combined with challenge examinations and "compacting" of the existing curriculum. Independent study should be based on student interest, and is carefully designed with the teacher modeling the consultant role. When students demonstrate adequate knowledge of a subject or theme, they may either explore the subject in more depth or go on to something new. They may take as little time as they need to master the material; they decide on how compact the learning has to be.

Collaborative learning within a heterogeneous setting is another strategy that is mentioned here because it is beginning to play an important role in the education of the gifted. The method has been used successfully in homogeneous groups of gifted students; the transfer of the strategy across the board may or may not motivate the potential gifted dropout to remain in school. Emphasis is on both group and task process. The group process gives those with leadership ability a chance to use their skills in a positive manner and to be an important part of a group. However, the down side of collaborative learning for the gifted within the heterogeneous setting is the potential for abuse by the teacher and other members of the group. It is all too easy to "let the smart one" do all the work or do all the teaching. When grades become part of the process, it becomes anathema to the gifted student who is not interested in the grade, or it becomes painful to the gifted student who is interested in the grade but must bear the burden of others' lack of interest or ability. It is also particularly difficult for the concrete random student who wants to dig into the process of the actual work, but may not be interested in the process of the group.

In order for curricular change to be successful, there needs to be modification of the school structure as well, particularly as it pertains to time. Students plead for more time in which to explore issues in depth; they say they are fragmented and, to use Elkind's (1984) terminology, "hurried" as they move through the standard school day. They need more time to learn; they also need more time to be social. The school year is based on an agricultural schedule, following the seasons; the school day is based on a factory schedule, following the clock and the bell. One might suggest strongly that the school year and day be based on the human schedule, following the body's general rhythm and pace. The general education literature has examined the issue of time in depth for a number of years; what it has not done is look at time and education from a developmental perspective.

Experiential learning takes more time; the doing is followed by (or is continuous with) the formal learning. Collaborative teaching across disciplines, learning through thematic or value based approaches, and independent study all take more time than delivering last year's lectures. It takes more time to design, to prepare, to implement, and to evaluate non-traditional programs. It also takes more time to become a full-functioning adult than it did a number of years ago due to the greater complexity of American society. We need to give our gifted adolescents the developmental time as well as the academic time they need in order to help them make appropriate use of the educational system in which they spend a great deal of their time.

#### Summary

ach of the interventions assumes that the individual student, the educational system, and the greater society has the capacity to change when necessary. They are appropriate for both the hidden gifted dropout and the more visible at-risk dropout—appropriate because they share a developmental base, grounded in the identity development needs of all adolescents within this culture. Obviously 75 percent of the student body does complete secondary school; what is not so obvious is whether these adolescents do receive an education that meets their academic and developmental needs.

When we ignore students' particular learning styles and developmental needs, we are doing our children a serious disservice. When we ignore their fundamental rights and needs, we are doing our children an even more serious disservice. Our students may indeed become school tired, whether they are gifted and using their energy to circumvent a system that is not meeting their individual intrapersonal developmental needs, or whether they are at-risk, using their energy to survive a system that is not meeting their basic human needs.

#### A Final Note

ne last set of questions might be asked. When might it be appropriate for students to drop out of school? What are the conditions under which dropping out could lead to a healthy growth experience for the gifted adolescent?

It might be appropriate to leave the public school system when the system appears totally unable to make any move towards accommodation of student cognitive and developmental needs. When students are spinning their academic wheels, gritting their academic teeth, and beginning to exhibit clear signs of identity diffusion (with depression being a major pathological indication of terminal diffusion), it is probably time to search for alternatives. It might also be appropriate to leave school if no alternatives that meet student cognitive and developmental needs can be found.

It is necessary to have a firm support system in place when the decision to leave school is reached. Gifted adults who reflected on their dropout days said that active support from home, both emotionally and financially, is important in empowering gifted dropouts to develop an identity (and in the process, become educated) outside of the usual structures. It is important to know that one will not starve or be left on the streets, an option not always available to typical dropouts, even though they may have the emotional support of their families. Over and over again, these people said, "I don't know what I would have done without my parents. They were behind me all the way." "My mother is my best friend. She had faith in me." "They said that they didn't like what I was doing, that I might be a little hungry, but when I was ready to go back to school, they would be there." "My parents couldn't be much help, but I had an uncle, he was a priest. I wish he was still alive so I could thank him for all he did." The support system, although it might not have been recognized as such at the time, helped the adolescent anticipate positive recognition from others.

Equally important as support from those who care is some constructive plan of action while out of school, even if it is "slinging burgers." The gifted adults, reflecting back on their time away from school, all had a plan, although again, not all of them recognized it as such at that time. One young woman began a successful catering business. Another wanted to earn money in order to travel; she had a year long job as a flag person ready before she left school. One young man decided to take college courses as a continuing education student during his hiatus from high school, "just to see if the brain was still there," he said. It is easy to become diffuse and to lose sight of any purpose if one does not have a base from which to move, a plan of action. Plans can always be modified, adapted, changed, or dropped. "I think I'll go to California; I have a ride," is not the same thing as "I want to explore the country; I've always been fascinated by the pony express and how it worked so I've planned a bike trip. I need to work for six months or so to save enough money to do this. I'm going to be working nights at the supermarket because that pays more than days."

Moratorium time does not always mean traveling physically though the world; it may mean traveling mentally, writing in journals daily, photographing or painting local scenes, or taking the time to perceive one's world in a new and different way. However, it does seem to be necessary to spend part of the time alone and to emerge from that aloneness with a new sense of self. "I was sick, in this room, and I knew that it was up to me." "I was sitting on a hill, all alone, and ... it was like I knew where I was going. I didn't know how I was going to get there, but I knew I was going somewhere." "I just knew I didn't want to weed someone else's garden for the rest of my life." A return to formal education tends to follow this experience. The moratorium is over and adolescents are ready to meet the educational system on a different, more adequate level of understanding and experience.

# References

- Archambault, R.D. (ed.). (1964). John Dewey on education: Selected writings. Chicago: University of Chicago Press.
- Archer, S.L. (1982). The lower age boundaries of identity development. Child Development, 50, 950-959.
- Benedict, R.R., Snell, R. & Miller, D. (1987). Enterprise high: Helping school dropouts become self-supporting adults. *Educational Leader-ship*, March, 1987, 75-77.
- Betts, G.T. and Neihart, M. (1988). Profiles of the gifted and talented. Gifted Child Quarterly, 32, 248-253.
- Bickel, R. and Papagiannis, G. (1988). Post-high school prospects and district-level dropout rates. Youth & Society, 20, 123-147.
- Carlson, R.O. (1964). Environmental constraints and organizational consequences: The public school and its clients. In D. Griffiths (Ed.), *Behavioral Science and Educational Administration* (262-276). Chicago: University of Chicago Press.
- Carnegie Council on Policy Studies in Higher Education (1979). Giving youth a better chance. San Francisco: Jossey-Bass.
- Clark, B. (1983). Growing up gifted. (2nd. ed.). Columbus: Charles E. Merrill.
- Coleman, J.S. (1960). The adolescent subculture and academic achievement. American Journal of Sociology, 1960, 65, 337-347. In M. Kornrich (Ed.), Underachievement (49-64). Springfield, IL: Charles C. Thomas.
- Davis, G.A. and Rimm, S.B. (1985). Education of the gifted and talented. Englewood Cliffs: Prentice-Hall, Inc.
- Davis, H. (1984). Self concept profiles of gifted underachievers. (Doctoral Dissertation, University of Rochester, 1983). Ann Arbor: University Microfilms International.
- Davis, H. (undated workshop material). Self-concept profiles of gifted underachievers.
- Dewey, J. (1938). Experience and education. New York: Macmillan.
- Dewey, J. (1916). Democracy and education. New York: Macmillan.
- Earle, J., Roach, V., & Fraser, K. (1987). Female dropouts: A new perspective. National Association of State Boards of Education.
- Edelman, V.W. (1987). Families in peril: An agenda for social change. Cambridge: Harvard University Press.
- Ekstrom, R., Goertz, M., Pollack, J. & Rock, D. (1986). Who drops out of high school and why: Findings from a national study. *Teachers College Record*, 87, 356-373.
- Elder, G.H., Jr. (1975). Adolescence in the life cycle: An introduction. In S.E. Dragastin & G.H. Elder, Jr. (Eds.), Adolescence in the life cycle (39-48). New York: Wiley.
- Elkind, D. (1984). All grown up and no place to go: Teenagers in crisis. Reading MA: Addison Wesley.

- Elkind, D. (1981. Children and adolescents. New York: Oxford University Press (3rd edition).
- Erikson, E. (1950). Childhood and society. New York: W. W. Norton.
- Erikson, E. (1960). Youth and the life cycle. Children, 7, 43-49.
- Erikson, E. (1968). Identity, youth and crisis. New York: W. W. Norton.
- Erikson, E. (1980, 1959). Identity and the life cycle. New York: W. W. Norton.
- Erikson, E. (1982). The life cycle completed. New York: W.W. Norton.
- Fine, M. (1988). Deinstitutionalizing Educational Inequity: Contexts which constrict and construct the lives and minds of public school adolescence. In, CCSSO (eds). Analysis and Recommendations of the Council of Chief State School Officers: School success for students at risk. New York: Harcourt, Brace, Jovanovitch.
- Fine, M. (1986). Why urban adolescents drop into and out of public high school. *Teachers College Record*, 87, pp. 393-409.
- Fine, M. (1983). Perspectives on inequity: Voices from urban schools. In Applied social psychology annual IV. Edited by L. Bickman. Beverly Hills: Sage Publications.
- Fine, M. & Rosenberg, P. (1983). Dropping out of high school: The ideology of school and work. Journal of Education, 165, 257-272.
- French, J. (1969). Characteristics of high ability dropouts. NASSP bulletin. pp. 67-79.
- French, J. & Cardon, B.W. (1966). Employment Status and Characteristics of High School Dropouts. ERIC document ED010 648. U.S. Department of Health, Education, and Welfare.
- Gallagher, J.J. (1975). Teaching the gifted child. Boston: Allyn & Bacon.
- Gilligan, C. (1990). Speech and personal communication. Keene State College, Keene, NH.
- Graham, P.A. (forthcoming 1988). Achievement for At-Risk Students. In CCSSO (eds.), Analysis and Recommendations of the Council of Chief State School Officers: School Success for Students at Risk. New York: Harcourt, Brace, Jovanovitch.
- Green, D.A. (1962). A study of talented high school drop-outs. Vocational Guidance Quarterly. 3, 171-172.
- Gregorc, A.F. (1982). An Adult's Guide to Style. Maynard MA: Gabriel Systems, Inc.
- Gregorc, A.F. (1980). Presentations and discussions. Confratute: University of Connecticut at Storrs.
- Hamby, J.V. (1989). How to get an "A" on your dropout prevention report card. *Educational Leadership*, February, 1989, 21-28.
- Hansen, B. (1991). Personal Communication.
- Hecht, K. (1975). Teacher ratings of potential dropouts and academically gifted children: Are they related? *Journal of Teacher Education*. 26, 2, 172-5.
- Hodgkinson, H.L. (1985). All one system: Demographics of education-Kindergatien through graduate school. Washington, D.C.: Institute for Educational Leadership.
- Holmes, M.B.W., and Collins, A.E. (1988). Retaining potential dropouts. Vocational Education Journal, 63, 22-24.
- Hopgood, A. (1988). Giving dropouts a second chance. Vocational Education Journal. 63, 20-22.
- Howe, H. (1986). The prospect for children in the United States. Phi Delta Kappan, November, 1986, pp. 191-196.
- Hoy, W.K., and Woolfolk, A.E. (1990). Socialization of student teachers. American educational research journal, 27, 279-301.
- Hruska, J. (undated). The obsolescence of adolescence. Unpublished paper.
- Hummel, R. & Roselli, L. (1983). Identity status and academic achievement in female adolescents. Adolescence, 18, 17-27.
- Irvine, D.J. (1987). What research doesn't show about gifted dropouts. Educational Leadership, 44, 6, 79-80.
- Kegan, R. (1982). The evolving self. Cambridge: Harvard University Press.
- Kennedy, E. (1988). When students drop out, we all lose. Vocational Education Journal. 63, 34-35.
- Khatena, J. (1982). Educational psychology of the gifted. New York: John Wiley and Sons.
- Lajoie, S.P. & Shore B.M. (1981). Three myths? The overrepresentation of the gifted among dropouts, delinquents, and suicides. Gifted Child Quarterly, 25, 3, 138-43.