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Breaking down the wall: Hope and the dialectical nature of education

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BREAKING DOWN THE WALL...
HOPE AND THE DIALECTICAL NATURE OF EDUCATION

by

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Bachelor of Arts
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A thesis submitted in partial fulfillment of the requirements for the

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ABSTRACT

Breaking Down the Wall...
Hope and the Dialectical Nature of Education

by

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This paper will analyze the history of public education and its relationship to the industrial economy, education and curriculum reform literature and policies (both past and present) predominately within the theoretical framework proposed by Henry Giroux. Personal observations and experience as a teacher within this system will be used to provide insight into theoretical paradigms. Implemented programs will be assessed within the historical and theoretical framework outlined above in an effort to determine the impact of post-industrial economic needs on education and the potential for resistance. The predominant method of gathering data will be through literature reviews and within the context of personal observations.
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Finally, for my Momma, my heart, my soul, my being, this one is for you...
CHAPTER 1

INTRODUCTION

The structure of "modern" public education has traditionally followed the Industrial characteristics of the economic system which spawned it. The United States is currently experiencing an economic metamorphic shift to the post industrial. As deindustrialization and the exponential development of computer technology transform our economy from one based in manufacturing to one based in information gathering and service industries, education has taken the center stage in major political campaigns and debates.

Philosophically, a tug-of-war between the reproductive and democratic functions of public education has been waged throughout history in the United States. While market ideology prescribes an educational policy commensurate with the needs of national security and the efficient operation of the market itself, a democratic approach to schooling tries to enable people to create their own world collectively rather than fit into one that is created for them (Engel, 2000). While the changes that are taking place in the curricular models of public education (i.e., block scheduling, multi-cultural, interdisciplinary classes, team teaching, accommodation of learning styles, uses of technology, and school to work programs), on the surface, make the education system appear more democratic and empowering, they also represent an excellent way of socializing
students to meet the needs of a changing economic system. Perhaps the swings between democratic (achievement-based student centered learning) and norm-referenced approaches to education are really nothing more than the ebb and flow of philosophic tides governed by the pull of an economic moon. While a growing economy promotes more democracy and student sensitivity, a constricting economy promotes an education that is more competitive and discriminatory... Like the moon and its pull on ocean tides, trends in the economy direct trends in education. Under this paradigm, the economy is a machine into which we are all plugged, its organization is based on the logic and values of those directing it. As participants, we are subject to ideological illusions as our life force is used as fuel to support the engine of market economics regardless.

As a teacher, I struggle on a daily basis with this dilemma. I want my students to be more than mindless fodder for a corporate monster. I want them to make a difference and be recognized and celebrated for their humanity and uniqueness, and yet, find myself bound by curricular expectations, test scores, and job preparation. As much as I rail against it, I know that each day they sit before me, I reproduce the power structure. How can I teach them to change and escape from it when I am as much a product of this system as they will be? At the same time, I am frustrated by traditional sociological theory (i.e., functionalism, economic determinism, etc.) in creating what I perceive as an institutionalized victimology. Each is quick to point out why the system is the way it is, why inequality exists, and why in larger terms the situation is beyond
change. We are caught in a dichotomous dilemma of haves and have nots, the powerful and the unempowered, all defined within the terms of capitalist production. It's like there is no God without the devil and vice-versa. One gives legitimacy to the other. Foucault (1972) points out that knowledge is a human construct and therefore, an artificial reality used to dictate and maintain a given power structure. He suggests that there is a whole realm of knowledge and history, a "person's" history, that has yet to be tapped and may offer alternate realities. Therefore, in order to formulate new solutions we need to "detach" and recognize the opportunity for a different kind of resistance outside the parameters of the usual debate and create new ways of thinking. In a short, use the tides instead of being victimized by them. Perhaps by defining ourselves and what is value instead of having it defined for us, we can "reconstruct knowledge" to free ourselves and our future.

It is for this reason I am relying on an interdisciplinary approach (sociology, political science, history, philosophy, economics, and educational theory), past and present education and curriculum reform literature, the critical pedagogy advanced by Henry Giroux and Paulo Freire. The choice to primarily use the work of Giroux is centered around not only his preeminence in the field, but in terms of praxis. Giroux, offers more than the usual esoteric theoretical discussion that tends to reify the status quo. He offers practical pragmatic strategies to affect change and redefine education. I am also including personal experience and observations in the writing of this paper. It is my attempt to "reconstruct reality," and use it as a foundation for generating a whole new set of
questions that might give rise to a "new history" complete with its own theory (Foucault, 1972).

Yet, as global as I may want to be, I am still confined by the physicality of my mind, the limitations of concrete communication and structured knowledge (as Foucault would define it). However, I refuse to submit and admit failure. Though I find myself in Plato's cave, I know there is more. I just have to look at my students and what they have taught me to believe.

In pursuit of a new approach, I will start by reviewing the history of public education and its relationship to the industrial economy. A historical examination can help us understand important trends in educational policy and its relationship to the economy. Critical theory will be employed in an attempt to discover a point of "discontinuity" in that history that would allow opportunities for change and ultimately, transformation. The utilizing of personal experience will shed light on how these macro-social trends are articulated "on the ground" at the micro everyday level and provide a different "Truth" or at least perspective. Finally, the use of various disciplines like looking with different lenses, will provide a more complex and multifaceted view of reality, thus a broader base of information on which to evaluate outcomes and possible solutions. All too often, academic disciplines tend toward a narrowed focus and overspecialization, sacrificing dynamic knowledge that is fluid and alive for stable theoretical structures that in the end legitimate the current power structure.
Theoretical Background and Overview

Americans have traditionally believed education and social mobility are intrinsically linked. In their view education provides training for jobs and a standardized core of language and culture, equalizes opportunities for social achievement, enhances personal development, and enables, nurtures and develops talent for selected professions such as doctors, attorneys, etc. (Stimson and Stimson 1987). However, education and success are often complicated by social realities. "We have blamed the schools for failing their students, ignoring the fact that performance in school is related to many variables: individual characteristics, family background, values, motivation, social supports, as well as the characteristics of the school itself" (Stimson and Stimson 1987: 274). Therein lies the impetus for education reform.

This debate in education can be reduced to two core perspectives, functionalist and conflict. The Functionalist paradigm has a long history in Western thought, and therefore, education. Its interlocking assumptions shape the educational system in the following ways: (1) as a meritocracy, anyone can qualify for a position or occupational role with the proper training, (2) society is best served by educationally acquired expertise, thus (3) education is the salvation of humanity and the future (Stimson and Stimson 1987). The Functionalist view of schooling argues schools should be 'neutral' institutions designed to provide students with the knowledge and skills they will need to perform successfully in the wider society.

On the other hand, the Conflict paradigm argues this approach is shallow and
non-critical at best. Conflict theory suggests the functionalist paradigm fails to
delve into the relationship that exists between the educational system and the
economic order, and the plethora of interest groups that both sustain and benefit
from the deep seated political, economic, racial, and gender inequalities
characterizing society.

According to Carnoy and Levin (1985), this traditional functionalist view has
also failed to offer a rounded understanding of the relationships shaping issues
such as ideology, knowledge, and power, fails to question the way “real
knowledge” is defined in the educational system, or how it functions to
perpetuate specific ideologies and forms of knowledge that sustains the
economic and political interests of specific groups. Critical theory attempts to fill
this gap.

This paper will primarily focus on three aspects of the educational system:
reproduction, conflict and resistance. The first looks at the reproduction of the
social, cultural and economic institutions; the second is a dialectic approach that
investigates the inherent contradictions within the system; the third looks at
potential outcomes. These three areas suggest that education, as a reflection
of the larger economic frame work, is a field of specific processes involving
antagonistic relations among different socioeconomic groups with unequal
access to the means of power and unequal abilities to produce, distribute, and
legitimate shared principles and lived experiences.

However, ‘reproduction’ and ‘struggle’, are only be part of the story. Critical
theorists such as Giroux point to the democratic elements fundamental to public
education and their potential to undermine the determinism of reproduction and offer the hope for change.

This paper will analyze the history of public education and its relationship to the industrial economy, education and curriculum reform literature and policies (both past and present) predominately within the theoretical framework proposed by Henry Giroux. Personal observations and experience as a teacher within this system will be used to provide insight into theoretical paradigms. Implemented programs will be assessed within the historical and theoretical framework outlined above in an effort to determine the impact of post industrial economic needs on education and the potential for resistance. The predominant method of gathering data will be through literature reviews and observation within the context of my own experience as a high school teacher in a working middle class school.
CHAPTER 2

THE REPRODUCTIVE LANDSCAPE

Structural Imperatives

Reproductive approaches such as economic determinism have played a significant role in exposing the ideological assumptions and processes behind the rhetoric of neutrality characteristic of conservative, as well as, liberal views of schooling. Theories of social reproduction center on the notion that schools occupy a major, if not critical role in the reproduction of the social formations needed to sustain the social relations of production. “Schooling is shaped by work, and for more than a century in the United States, the nature of work has been defined by the development of industrial capitalism. This relationship between schooling and work is not direct, however. It is transmitted through the prism of the state” (Carnoy and Levin, 1985: 52).

Public schools in America have historically reflected shifts in the U.S. economy and provide a direct correlation between educational policies and the meeting of industrial needs. For example, in times of high youth unemployment - career and vocational education became the focus of industry and was ultimately reflected in school curriculums that emphasized training in these areas. “The most important changes in the American workplace over the last two centuries have been the shifts from self-employment to wage employment and from employment in small
businesses to employment in large enterprises. " (Carnoy and Levin, 1985: 53).

Thus, according to this argument, schools serve two reproductive functions in capitalist society. The first is to reproduce the labor power necessary for capital accumulation, and to provide for differential selection and training of students along class and gender, based on the 'technical' and cognitive skills required for adequate job performance. The second is to reproduce 'attitude' (in terms of the consciousness, disposition, and values) and to maintain institutions and social relationships, facilitating the translation of labor into profit as well as its justification and normalization. Thus, the social relations established within the classroom setting and the institution of the school itself, inculcate students with the disposition necessary to accept "as normal" the social and economic imperatives of a capitalist economy, an objective achieved predominantly through the 'hidden curriculum' of the educational process (Reich, 1991).

_Through the Looking Glass: (A Historical Overview)_

In colonial America, production and reproduction were unified in a single institution, the family. Therefore, preparation for life in the larger community centered around the child's experience within this institution.

While formal forms of education did exist, they were organized on a _laissez-faire_ basis. Parents could choose between "Common" schools (often partially financed by local taxpayers but primarily funded through private means) and private schools (church schools, college prep academies, seminaries, dame schools for primary education, charity schools for the poor, and private tutors),
however, they were still ultimately responsible for, and had complete control of, their children's schooling. There were no accrediting agencies, no regulatory boards, and no teacher certification requirements. Parents could choose whatever kind of school or education they wanted for their children, and no one was forced to pay for education they did not use or approve of (Brouillette, 1999: 3).

"The concept of education (during the colonial period) came into existence more out of necessity than anything else. The masses had to be educated in order to be able to understand the written codes that the colonies were now living under, both religious and secular, and without some sort of education this idea would be impossible" (Brouillette, 1999: 3).

The Massachusetts Law of 1642 required that parents and masters of those children who had been apprenticed to them were responsible for their basic education and literacy, and that pupils should be able to demonstrate competency in reading and writing as outlined by the governing officials. The argument behind this legislation was that if all citizens had a basic understanding of written language, they could understand and, therefore, follow the law. Although formal schools did not exist as we know them today; each person was expected to be educated enough to meet the needs of his or her station in life and a stable society (History of American Education, 1999).

However, as economies expanded their function beyond the buying and trading of commodities to purchase labor (direct employment), the role of the family as the focal point of child-rearing and economic production was severely undermined. The more the ownership of the means of production became
concentrated in the hands of a few, opportunities for a more independent livelihood declined, thus forcing individuals to work for wages (Bowles and Gintis, 1976).

Pulliam and Van Patten point to the period between 1812 and the Civil War as a transitional period in which the first seeds of what would eventually evolve into a free, public school system, (supported and controlled by the state) were sown. "The rise of nationalism and Jacksonian Democracy, the Industrial Revolution, and the forced of westward expansion, immigration, and population growth provided impetus to the concept of universal education" (Pulliam and Van Patten, 1999: 93).

In the three decades prior to the Civil War, "two significant developments occurred in popular education in the United States. The first is that the foundations were laid for a government takeover of education, and the second is that the historic role of schools in transmitting religious traditions gave way to more secular goals" (Brouillette, 1999: 4).

The fight to bring education under the control of government was essentially a fight over the schools' role in shaping the character of the American people. This goal, implicitly religious, was social integration through the inculcation of certain common (protestant) beliefs selected for their "uplifting" character. Education reformers emphasized and promoted a state run uniform system of education. Too much diversity (both cultural and curricular) and lack of accountability to the political process was perceived as a threat to the stability and best interests of society (Brouillette, 1999: 5).
Political & economic development coupled with social and economic mobility created a market demand for vocational skills and a working class demand for education. As the urban problems and conflict associated with industrialization intensified, the idea of the 'common' school was reintroduced.

Progressive reformers and their most vocal champion, Horace Mann, viewed education as a right and believed that popular schooling could be transformed into a powerful instrument to promote social unity and to address social issues such as the prevention of crime and alcoholism, the reduction of social class tensions, the assimilation of immigrants, and the preparation of citizens to vote (Purdue University, 2002).

Reformers also advocated a standardized curriculum of basics such as math, grammar, geography, reading, writing, spelling, physiology (hygiene), vocal music, and non-sectarian Christian principles to be measured by a standardized system of grades (Purdue University, 2002).

Despite the emphasis on democratic and social ideals, the progressives were not totally removed from the market ideology and economic realities in which they found themselves. Mann believed educating the masses would result in increased economic benefits for the nation. The better educated the worker, the more productive the company. This was the first statement proposing the "human capital theory," which suggests that a necessary stock of knowledge and skills enables the labor force to increase its production (Watson School of Education,

*Give Us Your Tired, Your Poor, Your Laboring Classes...*

The Industrial Revolution, alone, introduced an entirely new dynamic into the structure of education. "The vast growth of cities and factories tended both to increase the desire for schools and to decrease the opportunity many children had to attend them. The factory system employed whole families, some beginning work as young as eight years old. The severity of the problem of child labor is evident in the finding that in the 1830s children less than sixteen years of age made up two fifths of New England's workforce. Also, a period of increased geographical mobility, the labor supply was made up largely of immigrants and transplanted farmers. Vast improvement in industrial processes increased the wealth of the nation, but also created slums, urban blight, and new social problems. Many reformers hoped to use education as a means of overcoming the difficulties produced by the industrial revolution, such as child labor crime, drunkenness and extreme poverty. During this period, women and girls worked in urban factories, often in sweatshops conditions. Under a laissez-faire philosophy, some employers saw little need for education of children" (Pulliam and Van Patten, 1999: 95).

Post Civil War, the family no longer constituted the dominant unit of production, as modern wage-labor organizations took their place. As a result, the emerging class structure evolved in accordance with the new social relations of
production. At the pinnacle, the capitalist class dominated the political, legal and cultural superstructure of society and their needs dictated the evolution of the ensuing educational system. This new order of capitalists needed a training system that would facilitate the rapid adjustment of worker production to ever-changing business cycles, and, at the same time, legitimate the existing class structure and economy (Bowles and Gintis, 1976).

Interestingly enough, during this same period, proponents of a more democratic education system reached into the past and were influenced philosophically by those who advocated a 'student centered approach to education'; i.e., Jean Jacques Rousseau, Johann Basedow, Johann Pastilles, and Friedrich Friable.

Rousseau, as the progressive godfather of this movement, advocated "emotional, intellectual, and educational freedom for children" and heavily influenced educational theorists such as John Dewey. "Distrusting books and the standard pedagogical techniques of his day, Rousseau believed that children should learn directly from experience" (Pulliam and Van Pattan, 1999: 109).

A child centered philosophy appears to be a 'reaction' in direct opposition to the structured, competitive, hierarchical model, advocated by capitalists. The ensuing hegemonic crisis fueled dichotomous debates pertaining to curriculum, classroom management, assessment, etc. As a result, resistance to expansion of the capitalist production and power challenged continued domination. Economic leaders desperately sought mechanisms insuring their political stability and the continued profitability of their enterprises. This tedious balance of
meeting the needs of the laboring class (labor struggles etc.) and the wants, interests and desires of the capitalist class in terms of accumulating capital moved not only to the forefront of the American conscience, but also education. For example, in the early 1900s, the emphasis in education was on competition, which was very functional to the early mode of industrial capitalism by pitting worker against worker to increase individual production and output.

According to Pulliam and Van Patten (1999), with the influx of immigrants, two school systems were being formed, one for the elite and one for "them," that was rooted more in indoctrination, social control and assimilation and designed to rob these people of any culture and class consciousness or identity they may have brought with them. As the working class expanded, so did unemployment, social unrest, political protest movements and the push for educational expansion and reform.

Schools also became the primary mechanism for Americanizing students by emphasizing love and respect for American ideals, and the social, political and moral character needed in a democracy. Most existing school systems were private and required tuition. In the few public schools, most of which were in New England, overworked, poorly educated and untrained teachers taught only the fundamentals in poorly equipped facilities. Capitalist ideology was pushed through the readers by stressing individual virtue, literacy, hard work, punctuality, obedience and moral development. More importantly, they indoctrinated pupils into a middle class and upper class value system by stressing themes of rugged
individualism and laissez faire important to industrialists during the period (Pulliam and Van Patten, 1999).

The situation is not much different now than it was 100 to 200 years ago as illustrated in "Education of the Corporate Order" by David Cohen and Marvin Lazerson (1972). Both assert that the modern development of education needs to be understood in the framework of the school's adaptation to large-scale corporate capitalism and the resulting conflicts the system has incurred. This is done by 'infusing the schools with corporate values and reorganizing them in ways seen as consistent with this new economic order as the dominant motif' (Cohen and Lazerson, 1970: 373).

Not only are there conflicts between laborer and capitalist, but class conflict also exists in the type of education received by upper-capitalist class children and their underprivileged brothers and sisters.

At its inception, educational leaders such as Horace Mann, James C. Carter, and Henry Barnard, shaped by the ideals of Jacksonian Democracy, forged an educational doctrine of equality, demanding mass education for all citizens, and deeming a specialized system of separate schools for the elite social classes as unacceptable. The demand for general education and vocational skills was based in the idea that schools could provide a way by which one might achieve social and economic mobility. Unfortunately, as today, the poor, minorities and women were often excluded (Pulliam and Van Patten, 1999).

Although it was asserted that an educated labor force would increase production the hidden agenda included indoctrination and socialization (rather
than education or rather critical thinking) that was what the corporate class was viewing as advantageous. School culture has become closely identified with industrial values by socializing economically desirable traits and behavior, vocational skills, and education consistent with the student's expected occupational attainment. However, this industrial culture is not always viewed as compatible with the "educational ideal." Laboring and middle class families demanded high-quality public schools for their sons and daughters. Training for making a good living was important, but so too was education for citizenship, morality, and self-improvement" (Pulliam and Van Patten, 1999: 124).

However, the demand for educational accessibility and for increasingly schooled employees created an interesting dilemma for business interests and inherent conflicts between the educational accessibility and the need for schooled employees. Andre Gorz suggested "Big business, in short, sought to reconcile two opposites: on the one hand, the need created by the modern process of production for a higher development of human capabilities; and on the other hand, the political need to prevent this development from leading to an increased autonomy of the individual that would threaten the existing division of social fruitions and the distribution of power" (Carnoy and Levin, 1985: 99).

The tactic is, therefore, to divide and conquer. One method used to hide inequalities were a newly developed system of meritocracy, such as I.Q. tests, as predictors of success or failure (achievement-based approaches). While such innovations may on the surface, have appeared to guarantee equal opportunity according to ability, in reality served to perpetuate the class structure. For
example, upper-class children have more advantages and exposure needed to succeed in the dominant social structure than a working-class child. The upper-class child has the economic resources to be sent to the best schools, thus perpetuating their position in terms of power and access to the means of production. (Bowles and Gintis, 1976).

Curricular differences and methods of classroom management also maintain existing power structures. Upper-class students receive encouragement in creative learning and expression (as opposed to the back-to-basics drills) associated with the increasing amount of leisure time allotted the upper-class. On the other hand, children from working-class and underclass backgrounds have educations centered around rote learning, discipline and social control. Low income schools are also (and most likely are) battlegrounds for maintaining control. Whereas the upper-class kids are provided with classes that will ensure that they remain where they are, lower-class students are funneled into classes guaranteed to provide a steady army of labor to do the bidding of the corporate class and its economy (Bowles and Gintis, 1976).

During the post World War II era, this ideological struggle took a center stage when a group of educators launched the “Life Adjustment Movement.” Theoretically related to the progressive education movement, this group was more interested in helping the students who were not college bound and was often very critical of any program not suitable for the majority of young Americans. High schools were failing to meet the needs of the 60% of students who were not being trained for a vocational skill (Pulliam, Van Patten 1999). The push was to
make education more meaningful and democratic for its clientele, the student and their parents.

"In 1947, Commissioner of Education John Studebaker called attention to the 20% of children who did not enter secondary schools and to the 40% who dropped out before graduation. Attention was given to the wide range of individual differences among secondary school students and the effect of family or cultural background on achievement. Studies were to assess how to best reduce the drop out rate by examining the relevance of programs in the view of students" (Pulliam and Van Patten, 1999:188).

However, by the end of the 1950's, the philosophical tide shifted again.

"Equality of education opportunity" took on an entirely new dimension. The shift from 'life adjustment' to 'excellence' was complete when the Soviets successfully launched Sputnik, and Congress passed the National Defense Education Act (1958). The major purpose of this act was to strengthen the teaching of mathematics, sciences and modern foreign languages. "The Congress finds that an educational emergency exists and requires action by the federal government. Assistance will come from Washington to help develop as rapidly as possible those skills essential to the national defense" (Defense Education Act of 1958).

The Act established a student loan program for college, built area vocational schools to train 'technicians' skilled in math and science, and appropriated $15 million over a five-year period for that purpose. Thus, Life Adjustment programs were pushed aside and redefined by Cold War politics and the growing power of the military-industrial complex. Those in power demanded that academically talented student, not at-risk ones, receive adequate training, claiming that equality of opportunity did not mean the same education for everyone, and that the
national welfare demanded special provisions for the gifted (Pulliman and VanPatten, 1999).

The 1950's produced a strategic coupling of national power and corporate power: with the American core corporation planning and implementing the massive production of goods, the government smoothing out the business cycle and preparing the nation's youth for the jobs awaiting them within the industrial system. Preparing America's children for gainful employment in a system of high-volume standardized production is not terribly burdensome. All that was needed was an ability to comprehend simple oral and written directives and sufficient self-control to implement them. Thus schools have been analogous to factories in which raw materials were shaped and fashioned into products to meet the various demands of life and it was the school's business to fashion its pupils to the specifications laid down (Reich, 1991).

The life adjustment program met its demise in the late 1950's due to heavy criticism of those interested only in intellectual development and a fear of lowered academic standards. (Sound familiar?) However, “American schools continue to have large numbers of students who leave school because they are bored, poorly adjusted, unable to communicate, or merely uninterested in the programs offered. Today, many schools are attempting to offer alternative high schools, work study programs, storefront schools, or 'schools without walls' in an effort to meet the needs of students for whom the regular education program is unsatisfactory. This is exactly what the life adjustment plan intended to accomplish” (Pulliman and Van Patten, 1999: 181-82).
However, according to Reich, the life adjustment plan was based in a top down management style where there was a tendency toward conformity and tractability which were perfectly consistent with the standardized, high volume system of production which neither required nor rewarded original thought (Reich 1991: 54).

Bridge to the 21st Century

Former Clinton Labor Secretary, Robert Reich argues the post industrial economy has been characterized by a "revolution in the methods of manufacturing and moving goods transforming what had been loosely knit networks of local economies into national ones, thus creating a worldwide competitive arena in which the primary battles are waged nation against nation." (Riech, 1991: 25)

In addition, Reich argues the real economic challenge facing the United States in the post industrial era, is increasing the value of what its citizens can add to the global economy by enhancing their skills and capacities, improving their means of linking those skills and capacities to the world market, transforming into an enterprise web.

"More and more big business is decentralizing into enterprise webs, on the one hand resembling the old industrial form of organization, however, on the other, headquarters, expansive factories, warehouses, laboratories, and fleets of trucks and corporate jets are leased. Traditional jobs of production workers as well as service and occupational workers, such as janitors, and bookkeepers, are under temporary contract; whereas key researchers, design engineers, and marketers are sharing in the profits" (Reich, 1992: 9).

The underlying question concerns the future of American society as distinct

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from the American economy, and the fate of the majority of Americans who are losing out in global competition. He asserts the fastest growing income disparities are between those who graduated from college and those who graduated only from high school or dropped out (Reich, 1992).

Inequalities are still being reproduced largely through the structure of the American educational system. The mechanisms of reproduction take place within the individual school itself, and ultimately serves to reproduce not only class structure, but racial and gender inequalities as well. Admittedly, there have been increases in equalizing distribution and access to education, but inequality still exists at all levels (Carnoy and Levin, 1985).

Jeannie Oakes, a social scientist for the RAND corporation, asserts "In elementary school and middle schools poor and minority students are most likely to have initial difficulties and be placed in the low-ability and remedial classes or in special education programs. Whites and upper SES elementary are more likely to be identified as able learners (and more often as 'gifted and talented') and placed in enriched or accelerated programs" (Weis, 1988:113). Thus, the first signs of black and Hispanic students' divergence from successful curriculum paths appear early in elementary school and are paralleled by differences on standardized achievement tests whose scores are much lower than whites in both mathematics and science (Weis, 1988).

Furthermore, minorities and women not achieving higher educations will find even fewer openings to equal occupational opportunity or salary (Carnoy and Levin, 1985). According to Carnoy and Levin, "Parents, school staff and the
state educational apparatus have different expectations for children from upper-middle-class families than for those from lower-middle-class ones. At the state level, the evaluative mechanisms (such as standardized testing, and curricular requirements) governing school performance set lower academic standards for schools enrolling children from the lower middle class than they do for schools with children from the upper middle class. Teachers and school staff revealed a similar difference in expectations, as well." They also add the situation is further complicated by the parents' educational level. "Even when parents try to intervene in the schools, the ability of lower-middle-class parents to obtain individual or group leverage over school policies is limited by their own education, their low sense of their own power and their tendency to attach to much importance to the professional expertise of school personnel" (Carnoy and Levin, 1985:138). In short, it is a reflection of their socioeconomic status (SES).

Class, race, and gender are reproduced in terms of structural outcomes. This position is clearly reflected in that income and occupational status are the best indicators of the level of education, income and occupational status the child will hold once out of school (Weis 1988). For example, the lower the SES, the less schooling there will be. The higher the SES, the more schooling the child is likely to achieve. It's a kind of Catch-22 that can become a self-fulfilling prophecy.

Tracking systems, standardized tests, and different curriculums geared toward either working class or ruling class children prepare individuals to accept and fill their respective roles within the social structure, often pitting one group against the other (i.e., They could do better if they only tried harder . . . ). More often
than not, 'ghetto' schools and remedial classes are designed merely to keep children out of trouble. The focus is on classroom management and busy work basics, not necessarily on teaching them critical thinking and problem solving.

While upper-class private schools are designed to train the new generation of the capitalist class, working class schools emphasize delayed gratification, elemental skills, office and mechanical skills, and middle-class schools emphasize more initiative and autonomy (Bowles and Gintis, 1976).

To better understand this argument, the internal organization of the school and its curriculum must be examined. Bowles and Gintis argue education operates from two curricular bases, the formal (where the actual subjects are taught) and a far more subversive informal one, which instills hidden values, belief systems and personality traits. Formal placements in particular courses (rooted in both informal and class-based criteria) also mediate the opportunities available for learning (i.e., consumer math vs. algebra or geometry). The system 'formally' selects, based on certain characteristics of the student. Sometimes the standards for placement are "objective," i.e., the use of stanines, (a numerical placement based on standardized testing); other times, the standards for placement are not so "objective." "Teachers' interpretations of the dress, demeanor and speech of minority and working-class youth profoundly influence the disproportionate assignment of disadvantaged youth to the lower ability groups and tracks" (Weis, 1988:15).
Tracking students' academic achievement is one institutional means of ascribing status distinctions: high track students are those who have been singled out, or rather diverted into an academic curriculum geared toward higher education and eventually upper-class positions in society. This "track" is characterized by a less punitive, more concerned student/teacher relationship, active learning interactions, and integrated social experience and affiliation with the school, higher educational aspirations, self-esteem and expectations of the future. Lower track students, on the other hand, often experience less concern from their teachers and more unfair treatment, are encouraged to be passive learners, feel alienated and distanced from the school and its social experience. They also exhibit lower aspirations, negative self-image and lower expectations concerning their futures. Unfortunately, it is a relentless cycle. Even if a student wanted to move into more challenging classes, he or she lacks the skill level to be successful due to placement in lower level classes. All too often, it becomes a self-fulfilling prophecy. "Race and socioeconomic differences in mathematics and science achievement, for example, are evidenced at age nine, are clearly in place by age 13, and continue to increase during senior high school. Race and class discrepancies in science and mathematics participation appear in junior and senior high school. Minority and poor high school students typically take fewer courses in science and mathematics, and their achievement scores are often quite low in these subjects. Thus the striking differences in college enrollments, choice of fields for study, and adult participation in the math, science, and
technology workforce appear to have their roots in pre-collegiate education” (Weis 1988:108).

This pattern often translates into the workplace. Workers, mirroring their student counterparts, have very little control over the process of their work activity and have little or no opportunity to express their own ideas, insights and individuality. Because their activities have been highly restricted and regularized, there is little opportunity to learn new skills or to make independent judgements (Carnoy and Levin, 1985). Not only is there tracking within individual schools, tracking also exists in the larger hierarchy of the school system itself. Upperclass public and private schools have the resources to instill the programs (such as) they desire for their children and that will ultimately reproduce their privilege and economic advantage. This trend is reflected in parental involvement and the investment of time and resources. Lower-class schools know of no such luxury, thus resources and materials are in short supply. Parents cannot afford to hire the best teachers (there is a hierarchy among teachers as well), acquire the best materials, or provide better living conditions for their students. Thus ghetto-ization of not only schools, but also neighborhoods, is created and ends up reproducing social status.

A number of factors determine day to day experiences within the education system: the teacher’s background, training and experience; available resources and support; instructional goals and objectives; knowledge and processes made available to aid learning; available books, materials, and equipment; classroom learning activities; and what is most important, the complex interactions between
teachers and students. "Considerable evidence suggests that these day-to-day classroom experiences are likely to differ both between schools and between students within the same school. This evidence suggests that the distribution of actual classroom experiences, resources, and opportunities to students with different race, class and ability characteristics may be an important schooling contribution to unequal outcomes" (Weis, 1988: 116).

Differences in curricular content also suggest that advantaged children are more likely to learn essential concepts instead of isolated facts and that academic knowledge is relevant to their future and their lives. "Students in upper-level classes focused primarily on mathematical concepts; low level classes focused almost exclusively on computational skills and math facts. Marked differences in the use of class time and the quality of instruction were also noted. Teachers of high-track classes got more instructional time in class and were expected students to spend more time doing homework. High track teachers were more enthusiastic, and their instruction was clearer. They used ridicule and strong criticism less frequently. Moreover, students were less friendly to one another; teachers were less occupied with matters of discipline and control" (Weis 1988:117).

Weis asserts working-class schools tend to emphasize procedure, steps, and the mechanics of basic skills. Masked in a hidden curriculum, students are inculcated with all things necessary to be a member of the working class (i.e., an emphasis on following orders reliably, taking explicit directions, not questioning authority, punctuality and respect for authority.) Weis suggests, in contrast,
middle-class schools offer more flexibility in arriving at the given solutions, putting less emphasis on procedure and more on the conceptual aspect of learning. However, she says middle-class schools still don't allow for inquiry like their upper-class counterparts. Allowed to work at their own pace without continuous supervision, students are encouraged to work for the sake of long-term rewards, and to internalize rules of behavior rather than dependence on specific and frequent instructions; perfect characteristics for a lower/middle management level in the occupational hierarchy. Schools catering to the affluent-professional class, in contrast, emphasize individual discovery, direct experience, experiments and discussion. Finally, according to Weis, schools geared toward the children of the executive elite emphasize the intellectual processes such as variables in order to solve problems. Boarding schools allow for the full indoctrination of ruling-class youth into ruling class values and expectations without any 'outside' influence (Weis, 1988).

"Whereas the lower educational segments will fulfill requirements of the primary and secondary labor markets, the higher educational segments will receive well-paid jobs with higher levels of autonomy, discretion, self-motivation, and initiative, such as professional occupations. Those entering the primary labor markets have little autonomy, highly routinized jobs inundated by codified rules. Secondary labor market jobs are characterized by the lowest wages, little job security or mobility, no unionization, and poorest working conditions" (Weis, 1988: 118).
However, class alone cannot explain the difficulties faced by minorities and women. A set of structural or class barriers designed to limit the advancement of these two groups also exist. Minorities have entered the American market system at various times in history. Depending on the group, the American ruling class fostered different types of social mobility. Whereas white males were afforded with the most opportunity for social mobility, African-Americans, as a group, have not been able to translate their own initiative into the desired upward mobility. They have to depend upon whites for access in achieving and realizing opportunities (Weis, 1988).

In reaction to such limitations, three types of responses are most likely to occur, 1.) Patronage, or rather acting like the dominant group, 2.) Withdrawal from competition, or 3.) Reliance on the efforts of organized groups such as the N.A.A.C.P. or the Nation of Islam. Such behavior is integrated into the school setting as part of the process of socialization to maintain what has been ethnocentrically called “cultural deficiencies.” There is a need to transmit these values in order to reproduce a particular class or category by telling students that these values are what they need in order to make it in this world.

However, even acceptance of these standards doesn't guarantee that wage gaps will disappear. In fact, the higher the education, the greater the disparity between incomes of whites and black in the same category (Weis, 1988).

It is estimated by 2019, based on current trends, white children who are now nearing the end of their first year in school will be twice as likely as their African-
American classmates, and three times as likely as Hispanics, to have a college degree (Johnston and Viadero, 2000)

Achievement gaps in school performance tied to race and ethnicity show up in grades, test scores, course selection, and college completion occurring in urban, suburban and rural school districts. "The gaps are so pronounced that in 1996, several national tests found African-American and Hispanic 12th graders scoring at roughly the same levels in reading and math as white 8th graders" (Johnston and Viadero, 2000:1)

"After decades of school desegregation efforts, during which the gap between blacks and whites closed substantially, progress has stalled. At the same time, the greater diversity of the school population and the rapid growth of the Hispanic population and other ethnic groups have reshaped the problem with a more complex set of issues. Those factors, combined with a much stronger focus on test scores in K-12 education and the erosion of affirmative action policies in university admissions, have raised the achievement-gap issue to the forefront of the national debate about schools, and created a new sense that something needs to be done." (Johnston and Viadero, 2000:1)

Furthermore, along gender lines, even though achievement abilities are approximately the same between males and females before the age of ten participation rates in math are leveling between boys and girls, major disparities still exist. "On the 1996 National Assessment on Education Progress (which uses a framework influenced by the NCTM Standards), males outperformed females in grades four, eight, and twelve, with more males than females scoring at the 'proficient' and 'advanced' levels of achievement than were students of color" (Perez, 2000).
By age 11, females typically do better verbally, and males in math and spatial assessments. This is the result of socialization and curricular processes that separate and specializes male and female ability along those lines. It also predestines males and females to show suitability for specific roles in the job market. With higher math and spatial abilities men are prepared for jobs such as architecture, engineering, science, etc. With higher verbal abilities, women are easily guided into jobs in the service industry, clerical work, etc. (Weis, 1988).

One of the reasons for these differences is the conditioning of females to accept stereotypes of women (passivity, weak, frivolous, etc.) and the inculcation of a domestic ideology which created a private/public dichotomy in which the private becomes the center of the females definition of self thus marginalizing her wage labor identity. Acceptance of this ideology makes it easier to channel females into jobs of low status and pay. Another reason females accept this difference, is that they may be basing their choices on “realistic assessments” within the job market (i.e., where and how they can “realistically” make a place for themselves in the job market).

The teachers themselves also reinforce such tendencies in their own treatment of female and minority students. For example, stereotypes still abound. Some argue that girls don’t have the right brain structures to be good at math. Even well known psychologists and authors (Simon Baron-Cohen, The Essential Difference, 2004 and Michael Gurian The Wonder of Boys 1996) argue men have “systematizing brains” designed for the hard sciences and that women have “empathizing” brains designed for care taking and mothering. It is also asserted
that only 20 percent of girls have the right brain structure for performing well at math. (Barnett and Rivers, 2004)

However, later studies found no significant differences between males and females in supposedly male domains, such as reasoning skills and geometry. The findings astonished researchers who were expecting large gender differences emerge as presented in earlier literature. However, they found boys and girls performed virtually the same in math (Barnett and Rivers, 2004).

All too often the stereotypes persist. Females are still encouraged to be dependent (even if unconsciously), white males are given more attention, and minorities are ignored or negatively assigned attention. Differences in language or culture are often misunderstood and used as excuses for holding minority children back and assigning labels such as culturally deficient, stupid, as having no respect for authority, or simply not in keeping with the dominant value and cultural structure. “Teachers play an important role in legitimizing schools’ allocation of knowledge and in preparing children’s future social roles on a class basis. They do this through their willingness to accept the exigencies of preparing students for the workplace. Teachers are realistic about the characteristics that will be required for success, so it is little wonder that they have lower expectations for minorities, females and the poor than for non-minorities, males and the well-to-do” (Carnoy and Levin, 1985:138). Their experiences tell them some students are destined to make it and others are not. Students are “guided” accordingly.

Much of this tracking is reinforced through teacher education programs, which utilize teachers as an additional hegemonic tool. Giroux argues “teachers at all
levels are important in legitimizing the categories and social practices of the dominant society: teacher education programs attempt, through a 'dominant rational,' to structure teaching methods so that teachers using them will reproduce the social relations of production" (Carnoy and Levin, 1985:139). He adds that system-management pedagogy or knowledge-based curriculum approaches are examples of classroom instruction that are simply forms of the rationality that has dominated schools and teacher education programs since their inception (Carnoy and Levin, 1985).

Schools themselves structure relationships similar to that found in the world of work: i.e., teachers to school administrators (lower to upper management), students to teachers (workers to supervisors) and student to student (worker to worker). However, although schools are organized like workplaces "screening and preparing youth for inequality," they are more equal and participatory than offices or factories. Therefore, it can also be argued that schools can create ideology and values independently of the workplace. Although there are similarities between schooling and work in their structure and practices, there are also significant differences which, in turn, possess inherent conflicts. Although formal education is the principal institution for producing the skills and division of labor needed for production in a changing economy, it is also the principle institution for instilling, promoting and nurturing the values and norms inherent in a democratic ideology (Carnoy and Levin, 1985).

Carnoy and Levin argue the resulting dichotomy results from the way the inherent conflicts between capitalist production and democratic ideology have
been resolved historically. The workplace changes as workers contest the conditions of work and attempt to increase the rewards for their labor, and as employers adopt new technology to increase output per worker. Demands for a more democratic education - most often expressed as a demand for more and better schooling that addresses the needs of students - are still closely related to work and the division of 'knowledge' associated with various jobs. Therefore, even in the face of more democratic demands, what is taught at different levels of schooling is influenced by the skills and attitudes required by jobs in the labor force. As work requirements change, so do schooling practices and even the whole structure of education (Carnoy and Levin, 1985).

However, the post industrial capitalist economy, unlike its industrial predecessor, needs more cooperation between its workers in order for its operations to run smoothly and insure profit. As infighting would undermine these objectives, post industrial imperatives are now being emphasized and reproduced in the schools (Bowles and Gintis, 1976).
As previously stated, in the United States, social institutions such as public education have been organized around a mode of production called industrial capitalism that is currently evolving into a post-industrial model more commonly referred to as "post capitalism," "global capitalism," "corporate capitalism," etc. Likewise, public education is evolving in response to this symbiotic relationship ultimately, reproducing it. Thus the changes in content and character of education are based and dependent upon the economic circumstances it finds itself in. Conflict theory argues once one understands the mode of production, one can understand how and why a given society is organized the way it is, asserting that social relationships emerge in response to economic production. (Carnoy and Levin, 1985)

However, the structural reproductive view of education doesn't begin to address why this process happens. Structural Marxism attempts to address this shortcoming. Louis Althusser suggests the structure of production defines not only the purpose and functioning of institutions but also that of the individual immersed in the structure of capitalist production. He suggests "consciousness" is also a product of these relations and the apparatuses that reproduce them.
Althusser raises a simple question: Why do people accept the system and its inequalities as “natural” (Althusser, 1971)?

Althusser explores why people follow laws, and why there isn’t a revolt/revolution against capitalism. His distinction between ideology (structural) and ideologies (historical/social) come out of his understanding of the relationship between State and its citizens (subject). Althusser suggests the concept of democracy, as an ideology, works with capitalism, giving the "illusion" that all people are equal, and have equal power (and thus mask relations of economic exploitation). He outlines two major mechanisms, the Repressive State Apparatuses (RSA) and Ideological State Apparatuses (ISA), insure People behave according to the “rules,” even when it’s not in their best interests to do so. According to Althusser, RSA’s (i.e., police, and the criminal justice and prison system) enforce behavior directly. Through these "apparatuses," the state has the power to physically force you to comply and punish when you don’t. ISA’s, on the other hand, are institutions which generate ideologies to be internalized by individuals (and groups). They include schools, religions, the family, legal systems, politics, arts, sports, work, etc. These organizations generate systems of ideas and values that individuals may or may not believe in, thus producing consciousness, subjectivities (Althusser, 1971).

Althusser further suggests ideology is a structure, "eternal," and ahistorical. Like a vessel, the contents can vary but its form, like the structure of the unconscious, is always the same. “Like language, ideology is a structure/system
which we inhabit, which speaks us, but which gives us the illusion that we're in charge, that we freely chose to believe the things we believe, and that we can find lots of reasons why we believe those things" (Klages, 1997:2). Althusser asserts people alienated from the material reality around them form ideas or "representations" which rationalize the dissonance they feel about themselves and their 'real' situation. In an attempt to deal with the realities embodied within the material relations of capitalist production, "they create realities that resolve the mental conflicts they live with." Such rationalizations function as a narcotic, numbing feelings of frustration and helplessness and deepening the alienation thus undermining resistance. Ideology is transmitted as images, myths, ideas, or concepts within the cultural context of a given society. It represents the symbolic relationship of humans to the real world or the means of production and their perceptions of it, functioning as a defense mechanism shielding the viewer from the harsh realities of alienating capitalism (Hill and Turner, 1994).

"Ideology is the story we tell ourselves about our relation to the real world. Therefore, the "real world" becomes, not something that is objectively out there, but something that is the product of our relations to it, and of the ideological representations we make of it--the stories we tell ourselves about what is real become what is real...Althusser says, ideology is an illusion or an imaginary understanding, not of the relations of production themselves, but of my relation to them." (Klages, 1997:3)

Although ideology is a reflection of the individuals' relationship to the means of production, rather than with production itself, it can only function if someone believes in it and acts on those beliefs. According to Althusser, therefore, the
The main purpose of ideology is to make people believe, obey its rules/laws, and behave as it dictates and accept those as "normal," "natural," etc... (Klages, 1997). "ISAs foster a set of ideas/attitudes that are ultimately in line with the goals of the state. They are established to give the subject the feeling that she or he is choosing to subscribe to that set of ideas which are actually being imposed upon him/her. In other words, the individual views him/herself as free of social control when in truth he or she is not. In short, ideology takes on a more influential role in the long run than does material power. Because the power of ideas is so important, it begins to have a life of its own instead of being viewed as a mere passive reflection of economic forces." (Hill and Turner, 1994: 2) In short, while factories produce commodities, ideology produces consciousness.

Hill and Turner (1994) argue, as an ISA, the education system in a capitalist society was created and designed to train people to have the proper ideology; such as respect for authority and the proper attitudes concerning class, nationalism, gender roles and corresponding capitalist values and institutions. Compulsory public education was introduced in industrial areas in order to integrate the working-class immigrants into the capitalist system, to build up patriotism and discipline in their children, and teach them the basic mind-set needed by an increasingly sophisticated industrial capitalist system. Control over the school system was necessary so that the working class itself would be unable to determine what occurred in its schools and yet still create the illusion of democracy. This 'control' was accomplished by putting the schools under the
jurisdiction of city wide boards dominated by local business interests who select the principals, textbooks, and basic school policies, ensuring the schools realize the functions for which they were originally established.

By maintaining the appearance of being ‘independent’ of the ruling class, these agencies are free to legitimate and reproduce the ruling class ideology and gain acceptance for this ideology throughout all levels of society. In order to insure stability and reproduction in any given society, the productive lower class members must, at least, believe in its legitimacy, even if it is not in their best interests. In short, control over the dominant ideology drives the hearts and minds of its charges.

Bowles and Gintis argue the development of schooling in the United States is a process of preparing the young for the social relations of production. “By alienating students from each other through an emphasis on individual competition; by subjecting them to a hierarchical structure in which they must relinquish control of their activities to a system of educational production and teachers whose authority devolves from their position; by holding to a system in which they learn to work for grades rather than for their own satisfaction; and by teaching them to accept the ‘matter-of-factness’ in their social relations with others- in all these ways the school conditions the young for the relations of the capitalist workplace.” Thus workers are divided against themselves, enabling the capitalist to exploit them in a systematic and socially acceptable way (Bowles and Gintis, 1976: 22).
Those systematic and socially acceptable ways include hiding behind a formal code of meritocracy, legitimizing social inequalities requiring schools to teach the values of individual achievement, material consumption, and the inevitability of the present social order. By making the capitalist system appear normal and natural, a kind of social Darwinism is asserted. The emphasis on individual effort obscures the role of socioeconomic status and the fact that schools are organized to reproduce the social relationships of capitalist production. Therefore, schools work to convince people the system is meritocratic and an efficient way of selecting talented people (Stimson and Stimson, 1987).

Voluntary acceptance of such an ideology is a far more effective means of legitimating power or dominance than simple structural reproduction. A power base of fear, coercion and forceful oppression is extremely unstable because, ultimately, it creates an environment where the lower classes will openly, if not violently, challenge the ruling class' 'right' to rule. For the state to exist at all, in any form, the governed must accept its rule as good and right and must, therefore, follow the authority claimed by those that maintain the reigns of the state. Thus ruling classes justify their ideology as a logical and necessary consequence of the doctrines and belief systems that exist in a given society.

Althusser suggested the structure of production relations defines the purposes and functioning of institutions, and viewed individuals as immersed in the structure of capitalist relations of production. Consciousness is a product of these relations and the apparatuses that reproduce them (Carnoy and
Levin, 1985). These belief systems (ideologies) may be initiated by the upper class by controlling institutions such as schools and its sources of funding, i.e., the government, but they are propagated at all levels of society by those who buy into them, even when it is against their own interests.

Interestingly enough, even rejection of these ideologies ultimately reflects their acceptance and eventual reproduction. This point is clearly illustrated in Paul Willis' work Learning to Labor (1981). Willis was interested in trying to explain why working class kids ended up with working class jobs. He found their school counterculture and opposition to authority, though creative, still doomed them to the class status they had inherited.

Historically, (i.e., the Reagan/Bush years) as funds were cut from education, groups that hoped for improvement in their access to better jobs were increasingly cut off from those jobs. At the same time, the availability of any kind of work for minorities was reduced by a traditional conservative economic strategy of disciplining the labor force through higher unemployment rates and anti-union policies. The effect of educational spending reductions, increased unemployment, and falling real wages on schools has been to reduce their 'democratic' side and make them increasingly oriented toward reproducing the relations of capitalist production and its class division of labor (Carnoy and Levin, 1985).

The control of educational funding is an attempt by the ruling class to consolidate its position by monopolizing all the means of mental production, ultimately to reinforce the ideology on which its legitimacy is based. The
concept of legitimating ideology is the basis for Antonio Gramsci’s work on the
concept of hegemony. He offered a much deeper understanding of how the
ruling class is able to maintain its power than either Marx or Lenin. He felt that is
being not simply a lack of understanding that kept workers from comprehending
their position and role in the economic process, nor was it only the private
institutions of society that kept the working class from self-realization. Rather,
he saw the state, or public education as an arm of the state, being directly
involved in reproducing the relations of production and the ideology that supports
it. Gramsci saw the superstructure represents the active and positive factors of
historical development, and focused his analysis on the complex ideological and
cultural relationships, the spiritual and intellectual life and the political expression
of those relations, rather than simply the structure itself (Carnoy, 1984).

Gramsci’s concept of hegemony has two major meanings: one, the process
whereby a faction of the dominant class exercises control through its moral and
intellectual leadership over other allied fractions of the dominant class, and two,
as a relationship between the dominant and dominated classes. In short,
hegemony is the successful attempt of the dominant class to use its political,
moral, and intellectual views to establish its vision of the world as universal (thus
Natural) and all inclusive to shape the interests and needs of the subordinate
classes to fit those views. This philosophy is passed through a whole tissue of
complex vulgarizations to become as common sense as the philosophy of the
masses, who in turn, accept the morality, customs and institutionalized behavior
of the society in which they live (Gramsci, 1971).
According to Gramsci, "the state is the entire complex of practical and theoretical activities with which the ruling class not only justifies and maintains its domination, but manages to win the active consent of those over whom it rules.' In various forms, he saw the state becoming an apparatus of hegemony encompassing civil society and only distinguished from it by the coercive apparatuses pertaining only to the State. After a while the two become inseparable, merging into a greater unity, including private and governmental apparatuses making all ideological apparatuses such as family, trade unions, reformist political parties, and private media become hegemonic apparatuses for the state" (Gramsci, 1971: 25).

One of the most powerful mechanisms for maintaining hegemonic control is the education system. Both primary and secondary schools emphasize the internalization of the basic capitalist values and attitudes and "factory discipline" such as punctuality, standing in line, raising one's hand, getting permission to use the restroom, eating at designated times and places, unquestioned acceptance of what the teacher and textbooks say. Unquestioned obedience, and regular attendance shape young minds into unquestioningly accepting their designated place in the class structure and, supporting the power structure and capitalist system as is. "As the dominant ideology, hegemony functions to define the meaning and limits of commonsense as well as the form and content of discourse in a society. It does so by positing certain ideas and routines and natural and universal" (Giroux, 1997: 94).
Universities have the most potential for turning out educated critical thinkers, the inculcating of values and attitudes in students, (i.e., including the training of teachers) on a much more sophisticated level than exhibited in the public schools. Political science, sociology, economics, history, philosophy, literature and related fields train students to adopt the specific attitudes appropriate to the upper classes while reinforcing what they have already learned. A college graduate is not only more skilled, he is more fully indoctrinated in the system's values.

Almost all universities are connected to the ruling class through board of directors, trustees representing the wealthiest and best connected interests in the areas they serve, thus they are able to have direct control over the process of higher education. They select the higher officers of the colleges and universities and establish the basic educational policies which guarantee that the faculty and administrators are responsive to the ruling class and that the students are responsive to the interests of the corporations (Carnoy and Levin, 1985).

The upper class is also able to dominate higher education through a number of other direct mechanisms such as the use of family endowments, personal gifts, foundation grants and corporate gifts. Indirect mechanisms include subsidies through the federal government. Universities are also very much tied to major corporations through stock holdings that fund much of their operating expenses and are thus motivated, like any other business or capitalist, to maximize their profit. Also, as any large employer, they are driven to keep
wages down and productivity up. (i.e., teacher testing and accountability). In all cases, dissidents to the status quo are effectively ostracized. In order to keep their jobs, get recognition, or even get tenure, the game has to be played by the capitalists rules. Whether an individual agrees or not, she or he, as a matter of survival, supports the system. Teachers often teach and pass on this survival mentality to their students.

Ideology is also legitimated structurally and reproduced in the form of textbooks, differentiated courses, guidance counseling, and hidden curriculum. Textbooks, for example, are a major source of reinforcing the differential treatment for both minorities and women. The publishing industry, itself a big business, is dependent upon consumers, and thus the expectations of parents, school personnel, school boards, and state selection committees weigh heavily in the choice of material presented. Textbooks are the result of substantial editing and reediting of material submitted by various experts and, in its homogenized form, is intended to teach and prepare students to take part in political and other social institutions. The "sanctity of the written word" presents the assumption that its information is objective, unbiased, can be used to interpret contemporary problems, and serve all equally. However, the text ignores women and minority contributions, and thus reflects and serves the interests of certain powerful groups, which again is reflected in the choice of curriculum. The ability to legitimize only certain categories of thought at the expense of others is an important means of maintaining social control and increase the power of elites through distortions, hidden assumptions, omitted
fact, subtle distinctions and emphasis. Gender role segmentation is but one example. From the very beginning, females are taught to be subordinate. Males are taught to be doers and females are socialized to accept the role of 'being' (Weis, 1988).

**Resistance is Futile**

In order to understand the relationship between education and business, we must first turn to the relationship between government and the corporations must be examined. G. William Domhoff, in *Who Rules America Now?*, expands C. Wright Mills concept of the Power Elite. He asserts the methods business uses to influence government is based on interlocking networks within the corporate community and between the corporate community and the government's policy shaping apparatus. Domhoff also asserts controlling the mode of production maintains access and control over financial institutions, thus allowing for easier access to capital investments and other money making ventures. There is also ownership of common stock by families and other corporations, and joint ventures among corporations. He demonstrates how all are joined together by the same legal, accounting, consulting firms and executives as well (Domhoff, 1983).

According to Domhoff, there is a similar networking system within the corporate community and financial institutions which is achieved through the concentration of stock ownership into the hands of approximately 0.2% or 0.3% of the adult population. Many directors hold interlocking directorships, creating a
tighter clique of corporate elite even within the upper class monopolizing financial resources. Therefore, corporate leaders can invest money where and when they choose, expand, close or move production facilities without notice, and hire promote and fire according to their discretions. Domhoff maintains that, as a natural consequence of making good business decisions and insuring a conducive climate for those decisions, the corporate and upper class involvement becomes a major influence in the public arena of government. They are involved in three basic ways: (1) they finance the organizations that are at the core of policy planning and opinion shaping; (2) they provide a variety of free services for some of these organizations such as legal, accounting and advertising; (3) finally, they serve as directors and trustees of these organizations, and thus determine their general direction and the people who manage them (Domhoff, 1983).

Domhoff illustrates how this is achieved through policy planning networks such as foundations, think tanks, policy discussion groups such as the Council on Foreign Relations and the Committee on Economic development, an opinion shaping process that includes the use of academia and the mass media. This ‘ruling class’ also enrolls the government through the candidate selection process (campaign finances and favors), special interest processes such as lobbies and thus linked to the business community and the policy making process itself through actual participation on presidential commissions, business councils and appointments within the government. All are used to obtain favorable tax breaks, subsidies and legislation that will benefit that particular
class. By holding key positions in the regulatory agencies that are supposed to regulate their respective businesses, there isn’t a need to do anything “illegal” because the system is set up already giving them control (Domhoff, 1983).

“They had attended the same preparatory schools, Ivy League colleges, and business schools. They read the same newspapers, belonged to the same clubs, vacationed at the same resorts. They served on the boards of directors of one another’s companies” (Reich, 1991: 53).

No one factor alone is structured specifically to give corporations power. Rather, it is a self-perpetuated system in foundation and structure that depends on an interlocking, interdependent network of institutions, social and cultural attitudes, traditions and conditioning, corporate community and the government itself that firmly establishes American business in a position of power and influence. According to basic economic principles, a shrinking pool of workers threatens to drive up wages. Therefore, it is in the best interests of business to work with the schools in developing programs to maximize the labor pool. Such cycles are characterized by business sponsorship of new programs, local alliances, increased technological development, increased graduation requirements in math and science, and promising more money if the schools meet their demands (Domhoff, 1983).

According to Clarence J. Karier, “the logical thrust of corporate industry, as well as the progressive liberals who tended to dominate the new social sciences, was toward the development of a new social science, and a new scientific management in order to socially engineer for control and order” (Karier, 1972: 155).
With this objective in mind, there emerged the 'philanthropic foundations' that were to ultimately play a key role in the policy formation that would protect and serve the interest of business. "One does not need to conjure up a conspiracy theory of history to recognize that the foundations did not consciously, over an extended period of time, support that which threatened to destroy the basic framework of the corporate liberal state" (Karier, 1972: 156). Karier asserts, despite a long history of philanthropy in America, the creation of large corporate foundations is very much a 20th century phenomenon. "From the very beginning of the century, the new philanthropic endeavors of the corporate wealth were directed at influencing the course of educational policy" (Karier, 1972: 157).

In 1913, a concerned congress directed the Industrial Relations Commission to investigate the role of foundations. Their conclusion is as follows: "the domination of men in whose hands the final control of a large part of American industry rests is not limited to their employees, but is being rapidly extended to control the education and social service of the nation." They went on to point out that the policies of the foundations would inevitably be those of the corporations which sponsored them (Karier, 1972: 157). At the forefront of influencing educational policies were John D. Rockefeller's General Education Board, which received a national charter in 1903 (influenced and shaped educational policy for African Americans in the South), the Carnegie Institute of Washington (1904) and Carnegie Foundation for the Advancement of teaching (1906). The contemporary testing movement has its roots in these early foundations. The testing movement was financed by these foundations to help meet the need for
'continuous measurement and accountability'. It was the Carnegie Institute of Washington that financed the researches which gave birth to the nativist, racist, elitist, class and culturally biased "I.Q." tests (Karier, 1972).

Clark Kerr, one of several men financed by the Carnegie foundation in the mental abilities research, influenced the school through his work in organizing the classroom curriculum. Basically, he was telling teachers what to teach, how to teach it, and how to evaluate it (Lemann, 1999)

According to Karier, from 1922 to 1938, the Carnegie foundation made grants supporting Kerr's work totaling approximately $325,000. "It was men like him, who, supported by corporate wealth, successfully persuaded teachers, administrators and lay school boards to classify and standardize the school's curriculum with a differentiated track system bases on ability and the values of the corporate liberal society" (Karier, 1972:166).

During that time period there existed a quasi-public bureaucracy of boards, compacts, councils and commissions that served to shape policy by giving and withholding both public and private funds at key points within the entire system. Influence was intensified by incorporating into and influencing the governing structure itself, the American Council on Education, an agency through which hundreds of philanthropic foundations, private businesses and public colleges and universities work in establishing nationwide educational policy (Karier, 1972).
Just Another Brick in the Wall...

The entire thrust of restructuring the schools in the 1980's was directed by such groups as the Carnegie Task Force, the Carnegie Forum on Education and the Economy and Theodore Sizer's coalition of Essential Schools. The emphasis is now away from rigidly defined, factory style production to a more post-structural model that requires a certain amount of teamwork, versatility, problem solving skills and technological know how. In 1985, the Committee for Economic Development issued a policy statement that placed the American business community at the center of the education reform movement. "It drew upon the perspectives, experience and expertise of business to address some of the main issues in public school improvement, financing, curriculum, and the organization management and work force of the schools" (Levine and Trachtman, 1988: xiii).

In the Reagan- age of corporatist politics, the initial line of attack centered on redefining the purpose of public schools as agents of social discipline and economic regulation. Under the guise of proclaiming a national crisis in the schools the conservatives have willfully misread and consistently argued against the reforms of the 60's and 70's claiming that they both compromised the academic rigor of the public school curriculum and contributed to declining teacher and student performance (Levine and Trachtman, 1988).

Referring to education in a campaign article he wrote, former President Bush's language is peppered with corporate lingo, including cliches such as 'a more competitive America', 'a strategy of investing,' 'accountability', 'career
ladders', and 'capitalize'. He also makes direct references to the relationship between business and schools as source of future workers (these are also principles exemplified in A Nation at Risk):

"Automatic promotion is ... unfair to students, who will be unprepared to find jobs in an increasingly complex economy."

"...Those children that face the risk of being left behind in an economy that will require increasingly advanced skills."

"Basic skills and a general education are crucial, but we also need an improved system of vocational and technical education. Our schools should work with business and industry to develop programs that reflect the needs of the labor market, now and in the future."

"The workplace is changing, and education must change with it. It is especially important to enhance the curriculum in mathematics, science, and computers is invaluable for competing in tomorrow's Job market" (Bush, 1988: 113).

The references go on and on, and go as far as stating that "David Kearns, Chief Executive officer of the Xerox Corporation, and education analyst Dennis Doyle" are designing proposals for matching funds for local school Districts (Bush, 1988).

Many of the education reform proposals of the 80's stressed math, science, and basic English skills, all necessary in developing computer literacy. One way schools have addressed this challenge is by the inclusion of computers in the classroom and an increased number of classes specializing in the use of computers and software. Other ways include involving business directly or indirectly in the school through funding, curriculum development, school to work programs, technology centered education, co-ops and standardized testing.
The needs of a post industrial economy was the focus of the (reform proposals of the 1980's) Reagan and the Bush administrations, articulated the 'corporate' rhetoric used to address educational issues and in the emphasis on testing and accountability (Bush, 1988). Thus, began the latest movement in Education reform, performance standards and accountability.

Thomas R. McDaniel predicted the reforms that arose in resistance to the Reagan- Bush education perspective. "The winds of change are now blowing up a new and different reform movement. The new reform agenda is likely to focus on human and social needs, rather than on economic and industrial ones. It is likely to concern itself with such issues as the empowerment of teachers, the improvement of a school climate, the development of students creativity and critical thinking skills, and stronger binds between school and the communities they serve. This new agenda is more likely to focus on equity on the educational needs of rapidly expanding minority groups and on the recruitment of minority teachers- than on excellence. It will attend more carefully to the psychological health of youngsters in a nation plagued by drug abuse, adolescent suicide, and AIDS. This new reform agenda is likely to come from the bottom up and to emphasize 'democratic' leadership by principals, it will seek to personalize education , and it will draw its strength from the needs, ideas, and decisions of students and teachers" (McDaniel, 1989:17).

As it turned out he was right. The pendulum did swing the other way in the 1990's. However, even as the Clinton era hailed initiatives the Progressives would have been proud of, the corporate community is still clearly involved. In
1990, the Carl Perkins Act was rewritten, but still placed a major emphasis on 'special populations', integrating academic and vocational education. The School to Work Opportunities Act passed in 1994 established a variety of programs to get students more involved with the world of work and post secondary education. It also provided temporary funding to some states to develop related programs. The Carl Perkins III Act was passed in 1996 to develop more fully the academic, vocational, and technical skills of secondary students and post secondary students who elect to enroll in vocational and technical education programs (U.S. Department of Education, 2002).

At the local level, funds were to be spent on "strengthening the academic, and vocational and technical skills of students . . . providing students with strong experience in and understanding of all aspects of an industry . . . developing, improving, or expanding the use of technology in vocational and technical education . . . providing professional development programs to teachers, counselors and administrators . . . conducting evaluations of the vocational and technical education programs. Including how the needs of special populations are being met . . . initiating, improving, expanding, and modernizing quality vocational and technical education programs . . . linking secondary vocational and technical education and post secondary vocational and technical education, including implementing tech-prep programs" (U.S. Department of Education, 2002).
Perkins III also included a number of provisions designed to support the preparation of individuals for nontraditional training and employment. Section 3(17) of Perkins III defines "nontraditional training and employment as occupations or fields of work, including careers in computer science, technology, and other emerging high skill occupations, for which individuals from one gender comprise less than 25 percent of the individuals employed in each such occupation or field of work" (U.S. Department of Education, 2002).

Various minor amendments and laws passed during the Clinton administration mandated extension work in the following areas; nutrition and family education; urban gardening; youth at risk; renewable resources; nutrition education and consumer education; pest management; farm safety and rural health; and rural development (University of Arkansas, 1999). Other initiatives offered up by the Clinton Administration included reduction of class sizes, new literacy programs, K-12 technology spending, increasing funding for charter schools, college-tuition tax credits, and easing access to student loans and Pell grants for low income students (Hoff, 1997).

However, the themes of the Clinton administration’s focus on education also included a Reganesque focus on technology and accountability. For example, the Carl D. Perkins Vocational-Technical Education Act Amendments of 1998 (Public Law 105-332) was signed into law on October 31, 1998. Restructuring and reforming programs previously authorized by the Carl D. Perkins Vocational
and Applied Technology Education Act, it outlined a new vision of vocational and technical education for the 21st century (New Jersey Department of Education, 1999). Corporations were actively involved shaping programs like School to Work, etc. The main difference between Clinton and his predecessor was the state of the economy. Since it was doing better (lower unemployment, higher job creation) there were more opportunities for minority and other disenfranchised groups. There was also more money to invest in programs such as alternative education, tech-prep, after-school and credit deficient programs. Education wasn't really more democratic, it just had more resources. Like the moon, the economy is forever constant.
CHAPTER 4

ECONOMIC SHIFTS

It's still the economy, stupid . . .

It all sounds great, chalk up one for the good guys, but then, the economy was good. Unfortunately nothing lasts forever. The ‘02 presidential election not only signaled a new administration, but also a waning economy. Another pull of the moon and the pendulum once is again on the downswing, a low-tide constricting educational opportunities and focused on norm referenced results (i.e., standardized testing and accountability initiatives, such as No Child Left Behind, etc.) The problem of a receding economy is there is little in the way of financial support needed to improve test scores. “In fact, the Republican agenda for schooling, with its emphasis on standardized testing, massive accountability schemes for teacher evaluation, standardized curricula, and top-down, get-tough approaches to school discipline, have further contributed to the de-skilling and disembowelment of teachers” (Giroux and McLaren 1984: Xxiii).

George W. Bush’s Committee for Economic Development, a leading business group, actively advocates the standards and accountability movement. According to the CED’s report, “Measuring What Matters: Using Assessment and Accountability To Improve Student Learning,” tests should be used and

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improved because they provide the "best means of charting our progress toward the goal of improved academic achievement" (Hoff, 1999).

The CED is comprised of Fortune 500 executives, academic leaders, and high-technology entrepreneurs, who entered the standards and accountability arena as the issue is rising in prominence on Capitol Hill. In reference to the current Bush administration's education proposals for accountability, standards, and testing, "there's a lot of congruence between what they're recommending and what we're talking about," (Charles E.M. Kolb, the CED's president and a former domestic-policy adviser in the first Bush administration). The CED report makes it very clear to lawmakers the business community is fully behind accountability measures, according to Matthew Gandal, the vice president of Achieve, a Cambridge, Mass.-based nonprofit group led by business executives and governors that promotes standards-based initiatives. The report also urges business leaders to insist high school transcripts should include student test scores and urges experimentation with teacher pay-for-performance plans (Hoff, 1999).

A CED report reaffirms what representatives of the business community said at a 1999 summit of governors, business executives, and education leaders urging policymakers to expand standards-based initiatives to include pay-for-performance plans for teachers. However, CED officials acknowledged proposals to improve tests in order to stimulate significant improvements in student achievement would require an infusion of money to be successful.
arguing one of the things that has held [such improvements] back is financial (Hoff, 1999).

This is a major omission in the Bush proposals thus far. It is almost as though improved test scores are expected to miraculously appear out of overcrowded classrooms with outdated books, antiquated equipment, and under financed and staffed schools, with kids who bring with them a whole host of socioeconomic baggage educators are ill-equipped to deal with.

More often than not, rather than infusing the necessary capital, the tendency is to revert back to traditional conservative methods. Unfortunately, the new post industrial economy is less forgiving than its industrial predecessor. “If you drop out of high school or have no more than a highschool diploma, do not expect a good routine production job to be waiting for you. Lower and middle-level management jobs involving routine production are also vanishing” (Reich, 1991: 213).

Educators know that, to be successful in the post industrial economy our kids must know how to learn. They need to learn with purpose from multiple sources, to actively to seek information to solve problems, and how to use others as resources in solving problems. Skills such as these are more complex and require a more sophisticated level of processing to develop than simply decoding words and manipulating numerical symbols. “What is wanted is a school system that can ensure that all children will learn to read, write, and cipher and at the
same time ensure that all children will learn how to think. This is a challenge that has never before faced public education in America" (Schlechty 1990: 40).

Schlechty argues in order to achieve these objectives, approaches to schooling needs to be rethought. She offers cooperative learning as an example. "Putting children in work groups and assuring that children with differing backgrounds and differing abilities work together in productive ways has proved to be effective in developing basic skills in youngsters with wide ranges of background, while at the same time, developing skills in thinking, group problem solving and so on" (Schlechty 1990: 41).

The problem, according to Schlechty, is the emphasis on standardization (i.e., grading, testing, curriculum). Standards-based initiatives barely address what the market is really looking for. "High value businesses possess, at their core, three different but related skills: 1) problem solving skills required to put things together in unique ways, 2) skills required to help customers understand their needs and how those needs can best be met by customized products, and finally, 3) the skills needed to link problem solvers and the problem-identifiers in the role of a strategic broker." (Reich, 1991:85)

If schools are to meet the needs of an information-based post industrial economy, by developing students as thinkers, problem solvers and creators, then the structure of schools must be redefined in order to meet those needs. The problem is that such skills are not easily standardized, and in the end, much harder to control.
The New Economy

As America's core corporation's out-source more and more production facilities to overseas venues, it is clear that they are no longer in the business of planing and implementing the production of a large volume of goods and services. "America's core corporations no longer own or invest in a vast array of factories, machinery, laboratories, warehouses, and other tangible assets; they no longer employ armies of production workers and middle level managers; they no longer serve as gateway to the American middle class" (Reich, 1991 p. 81).

Reich asserts the core corporation is no longer even American, but rather a facade sheltering an array of decentralized groups and subgroups contracting with similarly diffused working units all over the world requiring business strategies centered on increasingly specialized knowledge (Reich, 1991).

Changes in the economy are also influencing technology and ultimately the skills that are taught in the schools (i.e., computer technology). The most recent changes have resulted in the need for a more specialized and credentialed work force (Reich, 1991).

Reich asserts the major shift is from high-volume to high-value production and specialization. He says the distinction between 'goods' and 'services' has become meaningless in the post industrial economy because so much of the value these enterprises provide cannot be easily replicated worldwide such as:
"the specialized research, engineering, and design services necessary to solve problems; the specialized sales, marketing, and consulting services necessary to identify problems; and the specialized strategic, financial, and management services for brokering the first two" (Reich, 1991: 85).

Traditional services are experiencing a similar transformation, according to Reich. "The highest profits in telecommunications derive from customized long distance services like voice, video, and information processing; from 'smart buildings' connecting office telephones, computers, and facsimile machines; and from specialized telecommunications networks linking employees in different locations. The fastest-growing trucking, rail, and air freight businesses meet shippers' needs for specialized pickups and deliveries, unique containers, and worldwide integration of different modes of transportation. The most profitable financial businesses offer a wide range of services (linking banking, insurance, and investment) tailored to meet the specific needs of individuals and businesses" (Reich, 1991: 82).

Other changes include the decentralization of large corporations. On the surface, Reich says, they still resemble their mid-century counterparts and are still emblematic of the American economy, while in reality are no longer even American. "America's core corporations no longer plans and implements the production of a large volume of goods and services; it no longer owns or invests in a vast array of factories, machinery, laboratories, warehouses, and other tangible assets; it no longer employs armies of production workers and middle-
level managers; it no longer serves as gateway to the American middle class." (Reich, 1991: 81)

Unlike the traditional industrial model, high value enterprises have no need to control vast resources, discipline armies of production workers or impose predictable routines. Therefore, there is no need for the pyramid style of organization and management. "In fact, the high-value enterprise cannot be organized this way. The three groups that give the new enterprise most of its value—problem-solvers, problem-identifiers, and strategic brokers—need to be in direct contact with one another to continuously discover new opportunities. Messages must flow quickly and clearly if the right solutions are to be applied to the right problems in a timely way. This is no place for bureaucracy" (Reich, 1991: 87).

Instead of pyramid, the new arrangement looks more like a spider web, each point representing a unique combination of skills. According to Reich, new connections are being spun all the time. "At each point of connection are a relatively small number of people - depending on the task, from a dozen to several hundred. If a group was any larger, it could not engage in rapid and informal learning. Here individual skills are combined so that the group's ability to innovate is something more than the simple sum of its parts. Over time, group members work through various problems and approaches together, they learn about one another's abilities, they learn how they can help one another perform better, who can contribute what to a particular project, how they can best
gain more experience together. Each participant is on the lookout for the ideas that will propel the group forward" (Reich, 1991: 89).

Such an arrangement reduces overhead costs like office buildings, plant, equipment, benefits and payroll. Therefore, the web's outer edges provide opportunities to the suppliers of factories, equipment, office space, routine components, bookkeeping, janitorial services, data processing, etc. as contract providers. They provide specific services for a specific time and for a specific price. For the corporation, this is a far more efficient arrangement than directly controlling employees (Reich, 1991).

"More and more dignified headquarters, expansive factories, warehouses, laboratories, and fleets of trucks and corporate jets are leased. Production workers, janitors, and bookkeepers are under temporary contract; their key researchers, design engineers and marketers are sharing in the profits, executives, rather than possessing great power and authority over this domain has little direct control over much of anything. Instead of imposing their will over a corporate empire, they guide ideas through the new webs of enterprise. The most skilled and talented problem-solvers and identifiers have considerable discretion over what they do and how they do it. Thus, power is diffused. Throughout a weblike combination of groups including outside investors (shareholders) and strategic brokers who negotiate the contracts and put the deals together" (Reich, 1991: 89).

Jobs of the future are essentially bound into three broad categories; "routine production services," "in-person services"; and "symbolic-analytic" services. According to Reich, by 1990, routine production work (traditional blue-collar jobs, routine supervisory jobs by low-and mid-level managers, foremen, line managers, clerical supervisors, section chiefs and many information processing jobs) comprised about one fourth of American jobs. The standard American
education, based on the traditional premises was sufficient training for these jobs. The problem is these jobs are in decline (Reich, 1991).

Like "routine-production" services, "in-person" services also entail simple repetitive tasks, pay is based on hours or amount worked, are closely supervised, and do not require much education, such as a high school diploma, or its equivalent, and some vocational training (i.e., Manpower Inc.). In-person servers include retail sales workers, food servers, hotel workers, janitors, cashiers, hospital attendants and orderlies, nursing-home aides, childcare workers, house cleaners, home healthcare aides, taxi drivers, secretaries, hairdressers, auto mechanics, sellers of residential real estate, flight attendants, physical therapists, and among the fastest growing of all - security guards (Reich, 1991).

Many in-service jobs routinely enter and remove data from computers-, i.e., records of credit card purchases and payments, credit reports, cleared checks, customer accounts, customer correspondence, payroll, hospital billings, patient records, medical claims, court decisions, subscriber lists, personnel, library catalogues, and so forth. The new economy has produced huge piles of raw data which must be processed in much the same monotonous way that assembly-line workers. The biggest competition these jobs face is from labor-saving machinery such as automated tellers, computerized cashiers, automatic car washes, robotized vending machines, self-service gasoline pumps, and all
similar gadgets substitute for the human beings that customers once encountered.

The third job category includes all the problem-solving, problem-identifying and strategic brokering activities and unlike in-person services, can be traded worldwide. Manipulations of symbols data, words, oral and visual representations include jobs such as research scientists, design engineers, sound engineers, public relations executive, investment bankers, lawyers, real estate developers, and even a few creative accountants, management consultants, financial consultants tax consultants, energy consultants, agricultural consultants, armaments consultant, architectural consultants, management information specialists, organization development specialists, strategic planners, corporate head hunters, and systems analysts. Also included in this category are advertising executives, and marketing strategists, art directors, architects, cinematographers, film editors, productions designers, publishers, writers, and editors, journalists, musicians, television and film producers, and even university professors (Reich, 1991).

This category of jobs emphasizes partners and associates rather than bosses or supervisors and income depends on the quality, originality, cleverness and occasionally, speed with which they solve, identify or broker new problems. Such careers are not linear or hierarchical and rarely proceed along well-defined paths of progressively higher levels of responsibility and income (Reich, 1991).
According to Reich, teamwork is critical in 20% of American jobs. “As the world shrinks through efficiencies in telecommunications and transportation, such groups in one nation are able to combine their skills with those of people located in other nations in order to provide the greatest value to customers located almost anywhere. The threads of the global web are computers, facsimile machines, satellites, high-resolution monitors, and modems— all of them linking designers, engineers, contractors, licensees, and dealers worldwide thus removing distinct nationalities” (Reich, 1991: 111).

Conflict and Consternation

Integrating new workers into the wage-labor system is a recurring pattern in capital accumulation. However, expansion of the working class, unemployment, social unrest and the emergence of political protest movements have facilitated the development of movements for educational expansion and reform. Thus schools become the site of struggle between opposing interests (Bowles and Gintis, 1976).

Schools are an arena for a perpetual tug of war between two ideologies and a plethora of dichotomous world views, the classical vs. romantic, capitalist vs. democratic, federal vs. states rights. The history of educational conflict and change is directly related to social change in the United States, according to Bowles and Gintis (1976) and David K. Cohen and Marvin Lazerson (1972). Both maintain that the changes in the school system were, and are not smooth
adjustments of educational structure to the evolution of economic life, but rather a jarring and conflict-ridden course of struggle and accommodation.

Bowles and Gintis asserted the popular objectives and seemingly humanist reforms often imparted an enduring veneer of egalitarian and humanistic ideology, while the highly selective implementation of reforms has tended to preserve the role of schooling in the perpetuation of the dominant economic order (Bowles and Gintis, 1976).

Although the previously outlined approaches to social reproduction (i.e., Bowles and Gintis) shed some valuable insight into the functioning of the American educational system, the approach is very deterministic and is only part of the story. These theories fail to recognize human agency and the inherent contradictions within the system that has tended to make schools sites of struggle for the advancement of alternative values and ideologies. While the reproductive approaches have played a significant role in exposing the ideological assumptions and processes behind the rhetoric of neutrality and social mobility characteristics of conservative as well as liberal views of schooling, contemporary critical sociological theories attempt to illustrate processes and resistance within the “Black Box” of the classroom. Critical theory attempts to overcome rigid traditional theoretical frameworks in addressing such issues as structure, culture, ideology, consciousness and action. By developing more flexible theoretical models and research methodologies, new light can be shed on the way schools influence individual
outcomes and ultimately relate these outcomes to the wider social, economic and cultural spheres" (Ballantine, 1989: 70).

Viewing the schools as sites of struggle is best achieved by illustrating and relating historical resistance to the dominant values of the schools as well as society in general. By being able to recognize forms of reproduction, resistance and accommodation within the school process, and by being able to identify their strengths and weaknesses.

Perhaps the loudest opposition against the dominance of market ideology in our schools came from the Progressives. The progressive movement in education appeared between the late 19th and mid-20th century and generally refers to educational programs that grew out of the American reform effort known as the progressive movement and is loosely based in the pedagogy of Jean Jacques Rousseau, Johann Pestalozzi, and Friedrich Froebel. Progressives suggested children learned best when learning is related their own experiences, have a vital interest in what they are learning, and will be most easily learned by actual performance. The progressives insisted, therefore, that education must be a continuous reconstruction of living experience based on activity directed by the child. The recognition of individual differences was also considered crucial. Progressive education opposed formalized authoritarian procedure, and has for generations advocated and struggled to foster a reorganization of classroom practice and curriculum as well as attitudes toward individual students (Brouillette 1999).
The conflicting views of educational policy making can, therefore, be defined in terms of conflict between rationalist and democratic ideals. For example, during the 50's and 60's the New Jersey State Commissioner of Education Frederick M. Raubinger attacked the work of the Educational Testing Service in Princeton New Jersey, as undemocratic, elitist and undermining the educational policy making function of democratically elected officials (Oliker, 1999). In 1903, John Dewey warned that any authority structure in education must be evaluated according to whether it impedes or encourages the freedom of thought necessary in a democratic society (Dewey, 1964).

It is Dewey's warning that strikes at the heart of the struggle in education spawning a discourse which promoted education as a means of enabling citizens to take an active and positive role in shaping their society. "In this way, people were to be the ends, not the means; subject, not object; creators and not machines" (Engel, 2000: 1).

Progressive education focuses on how the system works, encouraging active participation by all citizens in social, political and economic decisions that will affect their lives. According to this perspective, "The education of engaged citizens, involves two essential elements: (1). Respect for diversity, meaning that each individual should be recognized for his or her own abilities, interests, ideas, needs, and cultural identity, and (2) the development of critical, socially engaged intelligence, which enables individuals to understand and participate effectively in
the affairs of their community in a collaborative effort to achieve a common good" (John Dewey Project on Education, 2002).

However, progressive principles have never been the predominant philosophy in American education. As previously outlined, the focus of public schools has been to achieve cultural uniformity, not diversity and to educate dutiful, not critical citizens. More importantly, schooling has been under constant pressure to support the ever-expanding industrial economy by establishing a competitive meritocracy and preparing workers for their vocational roles. "As traditional 'community' declined young people were lost valuable opportunities to learn the arts of democratic participation leading Dewey and the progressives to conclude that education would need to make up for this loss. As education turned increasingly to 'scientific' techniques such as intelligence testing and cost-benefit management, progressive educators insisted on the importance of the emotional, artistic, and creative aspects of human development" (Columbia Electronic Encyclopedia 2003).

Critical theory attempts to make the linkages between social structures and human agency and to explore their interaction in a dialectical manner. What is significant about this work that, by focusing on gaps and tensions existing in social sites such a schools, it successfully undermines theories of reproduction that support a "constant " fit between the school and the workplace. These approaches tend to demonstrate the mechanisms of social and cultural reproduction are never complete and are always faced with partially realized
elements of opposition. Therefore, the dialectical model characterizing this approach offers valuable alternatives to many pessimistic models of schooling that reduce the logic of domination to external forces that appear impossible to challenge or modify. For example, relationships not only exist between the educational system and the economic order but also within a panacea of interest groups that both sustain and benefit from the deep seated political, economic, racial, and gender inequalities that characterize society (Carnoy and Levin, 1985).

Furthermore, traditional views do not question the way knowledge is defined in the educational system and how it addresses the interests of specific ideologies as well as concerns of specific groups and classes. For example, theories of reproduction entertain the notion that culture refers to specific processes that involve antagonistic relations among different socioeconomic groups with unequal access to the means of power, thus resulting in an unequal ability to produce, distribute, and legitimate their shared principles and lived experiences. Therefore, not only are the structural hierarchies of labor relations reproduced in the educational setting, but so are the logic and values of the classes. Therefore, knowledge and power, and what counts as knowledge in any given society, school or social site presupposes and constitutes a specific set of power relations, thus reproducing the existing power relations through the "objective" dissemination of "knowledge" (Giroux, 1997).

Giroux argues it is more a process of reproduction, resistance and accommodation, asserting that schools have their own dynamics rooted in the
struggle over ideology. This analysis places renewed emphasis on the autonomy of schools, on their crucial role in reproducing ideology rather than skills or the division of labor, and on the dialectical nature of reproduction. It makes it "possible to analyze how determinant socioeconomic structures embedded in the dominant society work through the mediations of class and culture in shaping the lived antagonistic experiences of students at the level of everyday life" (Giroux 1983:98).

Even though business influences on educational policy have created the conditions necessary for the maintenance of stratified workforces, schools often reflect the more recent perspectives of critical autonomy and radical theories of cultural reproduction, thus suggesting that contradictions exist in the educational process making them sites of ideological struggle (Giroux, 1997).

Critical theory rejects the notion that schools merely mirror the workplace, and insists schools have their own dynamic rooted in the struggle over ideology. This analysis places renewed emphasis on the autonomy of schools, on their crucial role in reproducing ideology rather than skills or the division of labor, and on the dialectical nature of reproduction. Critical autonomy suggests that there is nothing inherent in the relations of production that would ensure a direct relationship between schooling and work. However, the schools help to create the conditions necessary for the maintenance of ideological hegemony. It also demonstrates that schools are sites of struggle by illustrating and relating historical resistance to the dominant values of the schools as well as the society in general (Giroux, 1997).

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From this perspective, culture is viewed as a system of practices, a way of life that constitutes and is constituted by a dialectical interplay between the class-specific behaviors, circumstances of a particular social group, and the powerful ideological and structural determinants in the wider society. This approach makes it possible to analyze counter-ideological and structural determinants in the wider society and how they tend to get incorporated into the dominant culture, ultimately accommodating them. Understanding theories of resistance, change and conflict in the educational system can become a means of empowering students and teachers toward educational reforms (Giroux, 1981).

From the very beginning, conflict has existed over who would define the curriculum and whether the schools themselves should be centralized or community controlled. Ethnic groups and local communities still struggle to keep some control over what their children are being taught. There are still attempts at making the school more open and accessible to the community. “The school was to be used for all sorts of community projects such as recreation activities and as a local center for communications. It was also expected that students and adults would work together on problems that involved the whole community” (Pulliman, Van Patten, 1999: 181).
CHAPTER 5

THE DIALECTICS OF HOPE

The Legacy ofHugh...

Today, scholars, educators and activists are again rediscovering Dewey's work and exploring its relevance to a "postmodern" age, an age of global capitalism and breathtaking cultural change, and an age in which the ecological health of the planet itself is seriously threatened. We are finding that although Dewey wrote a century ago, his insights into democratic culture and meaningful education suggest hopeful alternatives to the regime of standardization and mechanization that more than ever dominate our schools (John Dewey Project on Education, 2002).

Various groups of educators have rediscovered the ideas of Dewey and his associates, and are revising them to address the changing needs of schools, children, and society in the late twentieth century. Open classrooms, schools without walls, cooperative learning, multi-age approaches, whole language, the social curriculum, experiential education, and numerous forms of alternative schools all have important philosophical roots in progressive education. John Goodlad's notion of "nongraded" schools (introduced in the late 1950s),
Theodore Sizer's network of "essential" schools, Elliott Wigginton's Foxfire project, and Deborah Meier's student-centered Central Park East schools are some well known examples of progressive reforms in public education. In the 1960s, critics like Paul Goodman and George Dennison took Dewey's ideas in a more radical direction, helping give rise to the free school movement. In recent years, activist educators in inner cities have advocated greater equity, justice, diversity and other democratic values through the publication Rethinking Schools and the National Coalition of Education Activists (John Dewey Project on Education, 2002). However, just like in previous periods of war anxiety and cultural conservatism, progressive education is widely repudiated, and has disintegrated as an identifiable movement.

Pulliam and Van Patten suggest one of the greatest tragedies of American education is that it keeps reinventing the wheel. "Often, ideas that hold great promise for improving teaching and learning are discarded with the movement that brought them about . . . The fact that American teachers are not well versed in their own professional history means that they must begin from scratch in order to create new methods and programs" (Pulliam and Van Patten, 1999:188-89).

Like the pendulum of an old well-oiled time piece, education seems to span a dichotomous vacuum between the needs of capitalism and the needs of democracy with the silent rhythm and regularity of economic highs and lows. This assertion becomes crystal clear when progressive proposals of 50 years
ago or more are being called educational innovations today. With the exception of computer technology the most obvious parallels are as follows; inquiry-based instruction, mastery learning individual contracting, diverse staffing, flexible scheduling, individualized instruction, open classrooms, team teaching and nongraded schools.

Swoosh . . . the social egalitarian programs of the 1960's and 70's.


Tick . . . The Clinton reforms

Tock . . . No child left behind . . .

It is all about supply and demand. On the one hand, schools serve the function of the capitalist expansion and the “democratic” political system on the other which in turn, are conditioned by the larger social conflict outside the schools such as economic and political trends and alliances that set the stage for conflict. Like a pendulum, the curricular emphasis is given according to which side, democratic, capitalist, or special interest group exerts the most pressure and places the loudest demands. Other contradictions have to do with determining resource allocation for programs, and conflicts intrinsic to the educational process, such as meeting the demands for capitalist labor, and creating an educated, responsible citizenry, values that contradict each other in almost every aspect. It is from the recognition and use of these contradictions within the educational system that make social change possible (Giroux, 1981).
Resistance where the dominant culture is encountered and challenged by subordinate groups can manifest itself in a variety of ways, from a show of power to more subtle forms such as drug abuse, absenteeism or inattention. Chinks in the system that allow for resistance have to do with relative autonomy of the educational system and the contradictions inherent within its agenda (Giroux, 1981).

When evaluating most of the educational reforms over the last fifty years, the focus of those reforms was not to rethink the organizing principles of American schooling, but to appropriate additional funds for training teachers to be more efficient at mass production – particularly in math and science. Just like the broader economic system, education emphasized discipline and order. Children possessing the greatest capacity to absorb the facts in combination with a submissive demeanor, were placed on a rapid track; those with the least capacity for fact retention and self-discipline, on the slowest, most ended up on a conveyor belt in the middle. Standardized tests, routinely administered, measured how many of the facts stuck in the small heads and “product defects” were taken off the line and returned for retooling (Reich, 1991).

As in factory production, the larger the better. Smaller school districts were steadily consolidated into ever-larger ones, which gave rise to vast centralized factories called regional schools, through which ever-greater numbers of children could be processed smoothly and continuously. “For a number of spokespersons in the Reagan Administration, the meaning of public schooling
had nothing to do with the celebration of cultural differences or the creation of a
democratic public culture. Rather, it was about respect, order, and submission”
(Giroux, 1989: 728).

On one hand, rather than abandoning the old technicist discourse which
reduces schooling to job training, former Bush Sr. Education Secretary Bill
Bennett added the notion of cultural uniformity making public schools a cultural
as well a an industrial site. Giroux argues Bennett’s call for more curricular
content and increased standardized testing is nothing more than a thinly
disguised attempt to impose cultural uniformity on the schools, thus making
school content irrelevant to the culturally specific traditions, experiences, and
histories the students bring to schools and de-skill teachers by forcing them to
concentrate on delivering a curriculum that is both prepackaged and intellectually
vapid (Giroux, 1989).

While testing proponents argue “equal opportunity” can be achieved through
more rigorous academic discipline and greater educational expectations,
education is effectively trivialized by ignoring the larger political and social issues
facing society. “In the language of educational Reaganism, this translated into
teaching the so-called canon of Western virtues, transmitting standardized and
politically offensive content to students in ways that can be measured empirically
and rendered ‘morally neutral’, adopting a work ethic that is scornful of unions,
and equating school achievement with raising students’ S.A.T. scores and
implementing tougher forms of classroom management. Teachers are thus turned into hapless clerks or servants of the empire" (Giroux, 1989; xix).

Giroux argues rather than becoming an object of engagement and analysis, culture is to be understood through either the wisdom of the Great Books or a view of cultural restoration that is ironically paraded as cultural literacy. According to this vision, cultural and social differences are labeled as deficits and as deviancy in need of psychological tending and control. “At stake in this perspective is a view of history, culture, and politics committed to cleansing democracy of its critical and emancipatory possibilities. Similarly, in this perspective, the languages, cultures, and historical legacies of women, blacks, and other minority groups are actively silenced under the rubric of teaching as a fundamental act of national patriotism. The Reagan conservatives of the 80's defined learning in ways that clearly ignored the diversity of experiences, traditions, voices, histories and community traditions that students were bringing to school, and treated this diversity as a deficit. Under this perspective, schooling enlarges corporate and hegemonic cultural concerns while diminishing its mission to educate students for the ethical and political demand of democratic culture and public responsibility” (Giroux, 1989; XX).

However, according to Robert Reich, In light of the needs of the new economy, this perspective is a deficit and barely begins to address the needs of the post industrial market. Therefore, Giroux advocates curricular policies and methods that confirm and critically engage the knowledge and experience in
which students find meaning. In effect, it suggests taking seriously, as a crucial aspect of learning, the experiences of students mediated by their own histories, languages and traditions. This approach is not about self-centered self-indulgence characterized by critics of the "me generation." Rather, this approach is about teaching students the means to identify, unravel, and critically appropriate the codes, vocabularies, and deep grammar for different cultural traditions and use it as an object of critical analysis, debate and problem solving. This approach allows students to speak from their own histories and traditions while simultaneously challenging the very grounds of knowledge and power that has worked to silence them. A curriculum which respects the diversity of student voices also provides a fundamental referent for legitimizing the principle of democratic tolerance as an essential condition for forms of solidarity rooted in the principles of trust, sharing, and a commitment to improving the quality of human life (Reich, 1991).

A knowledgeable and skilled workforce can easily translate those skills into the global economy and develop global financing. Enterprise webs, attracted by well-trained workers and modern infrastructure, generate relatively good jobs, thus generating additional on-the-job training and experience thus facilitating connections to other global webs. "As skills increase and experience accumulates, a nation's citizens add greater value to the world economy – commanding ever-higher compensation and improving their standard of living" (Reich, 1991; 265).
Riech also argues without adequate skills and infrastructure, the reverse is inevitable, "a vicious circle" in which global investment can be lured only be relatively low wages and low taxes making it more difficult for the nation to finance adequate education and infrastructure in the future; the resulting jobs providing little or no on-the-job training and experience pertinent to more complex jobs in the future equals a death spiral. These needs were the focus of education reform during the 1990's. "Much of the initial force behind the present school reform movement grew out of concern that American education was not preparing students to compete in the emerging information based global economy" (Schlechty, 1990: 35).

The point is, the basis for manufacturing will shift from an emphasis on machinery and muscle to an emphasis on the management and use of knowledge. Knowledge work is defined as putting to use ideas and symbols to produce some purposeful result. Whereas, work is simply physical or mental effort expended to produce something thus the term knowledge work focuses attention on the idea of expending mental effort. Therefore, production increasingly involves the use of information (a form of knowledge) to increase wealth and improve living standards, health standards, and education standards as well (Schlechty, 1990).

Many business and labor leaders commit themselves to improving education in America, arguing the only possible way to compete in a global economy and maintain the present standard of living is to increase the capacity of the citizenry
to do knowledge work and to increase the number of citizens capable of such work. "Based on these needs, the new model for schools can be equated to corporate entities like IBM, i.e., teachers as leaders and inventors, the curriculum as raw material, and principals as leaders of leaders or leaders of instructors, (rather than instructional leaders). Superintendents might better be thoughts of as CEO's of the largest knowledge work business in the community rather than as priests to be treated with respect or plant managers to be bossed around" (Schlechty, 1990: 37).

"The view of the school as a knowledge-work enterprise suggests that one is simply legitimating the schools as hand maidens to business interests, just as Marxist and neo-Marxist scholars have long asserted is already the case with schools in America. For many, teacher is synonymous with instructor and conveyor of knowledge. In schools of the future, teachers will not be the sources of information; they will be guides to information sources. Too often the word student stirs of the image of a child sitting passively, receiving instruction from an adult. In the school of the future, students will produce knowledge, not simply receive it." (Schlechty, 1990: 36)

In this model, knowledge is power. From the colonial period through the civil war, land equaled the means of production and was, therefore, power in America. After the civil war, ownership of capital and factories, rather than education, became another avenue of power. In fact, most of these early power-brokers had little formal education. Although there is a high correlation between education and income, it is debatable whether education produces income or income produces education. The link between education and income,
and between education and power, is not as direct as some would believe. It may be more rooted in the ability to use knowledge. New technologies are having a major impact on knowledge and it use. "It is common knowledge that the miniaturization and commercialization of machines are already changing the way in which learning is acquired, classified, made available and exploited. It is reasonable to suppose that the proliferation of information processing machines is having, and will continue to have, as much of an effect on the circulation of learning as did advancements in human circulation (transportation systems) and later, in the circulation of sounds and visual images (the media)" (Lyotard, 1993:1).

Schlechty asserts the major democratic revolution that many reformers have looked for may come about precisely because the means of production in an information -based society is based on knowledge and the ability to put it to work to create, to invent, and to solve problems. "The ability to use knowledge is a private and personal possession. Companies can perhaps, buy knowledge workers, but they can never own them: (own the means of production) this is one of the reasons why large companies do so much to engender employee loyalty and are fearful of industrial espionage, corporate raiders and unions. If they are good at what they do, knowledge workers are much more valuable to employers—and to the body politic—than those who have no means to amplify their own importance and power other than the withdrawal of muscle and brawn" (Schlechty, 1990: 38).
Lyotard seems to agree. "The 'producers' and users of knowledge must now, and will have to, possess the means of translating into these languages whatever they want to invent and learn" (Lyotard, 1993:1).

For knowledge workers to be effective, a much more open environment is required than despotic states and nondemocratic regimes are likely to tolerate. Therefore, it is reasonable to expect that, as the American economy becomes more information based and as the mode of labor shifts from manual work to knowledge work, concern with the continuous growth and learning of citizens and employees will increase. Furthermore, conditions will require workers to function well in groups, exercise considerable self-discipline, exhibit loyalty while maintaining critical faculties, respect the rights of other, and in return expect to be respected. These characteristics describe the "virtuous" citizen in an idealized democracy.

"Corporate leader after corporate leader, when asked what they 'want from the schools', in the end respond 'we need people who know how to learn.' knowing how to learn, to learn on purpose, to learn from class, to learn from books and from instructors, actively to seek information to solve problems, to use others as resources in solving problems- these are far more complex qualities to develop than simple skill in decoding works and manipulating numerical symbol." (Schlechty, 1990: 40)

According to this perspective, children need to learn how to think. The ability to think and solve problems; to take the creative turn; to draw upon a rich vocabulary based on a deep understanding of language and the human condition are attributes that will be sought in the future work force.
Even more significant, is the relationship between knowledge suppliers and consumers and the knowledge itself. As a valuable commodity in itself, knowledge is and will be produced in order to be sold and consumed. "Knowledge in the form of an informational commodity indispensable to productive power is already, and will continue to be, a major - perhaps the major - stake in the worldwide competition for power" (Lyotard, 1993:1).

However, a major impediment to achieving goals lies in the current structure of schools; lockstep grading systems, regularly scheduled classes, standardized grading periods, standardized testing. In short, the standardized regimented format in which education functions creates conditions in which many of the most promising innovations are difficult to implement and even more difficult to sustain. "If schools are to serve the purpose that the emerging information-based society is asking them to fulfill in brief, to develop students as thinkers, problem solvers, and creators then the structure of schools must be redefined to accommodate technologies appropriate to the task" (Schlechty, 1990: 41).

In an information society, human capital is more important than ever before, and the function of schools in developing it becomes absolutely critical. It is no longer sufficient, however to merely to educate future workers in a general way. "An economy based on computer technology requires very specific mental skills; information management, problem solving, understanding complex systems, and higher order thinking—in other words, abilities similar to those of computers. This
demand necessitates changes in the nature of teaching and learning" (Engel 2000:97).

Education is facing a major paradigm shift from theories of learning to theories of cognition. The aim is to build intelligence into the tools used in education (i.e., computers) and let students direct their energies and focus on problem-solving and reasoning. The idea is to create a rich exploratory environment by introducing intelligent aids and computer tools thus shifting the focus of instruction away from manipulative skills, something the computer does well, to an emphasis on qualitative reasoning and problem solving (Engel 2000: 101).

This shift reflects the stated needs of the new economy; the ability to identify, coordinate and creatively problem solve, in short, “think outside of the box.” Theoretically, this shift could provide the potential for greater empowerment opportunities. That is, if young people are prepared to do so. Although top executives play an important role in organizing the web, “Most key decisions occur at lower and more decentralized points. Whoever in the web possesses the most valuable skills and insights will receive the largest rewards” (Reich, 1991: 147).

The commercialization of knowledge and information technology is predicted to have a profound effect on the control the state has in relation to the production and distribution of learning.

The notion of learning falls within the purview of the State, as brain or mind of society, will become more and more outdated with the increasing
strength of the opposing principle, according to which society exists and progresses on if the messages circulating within it are rich in information and easy to decode” (Lyotard, 1993:2).

These trends have the potential to realize the dreams of progressive teachers everywhere. “Despite being enabled within neo-liberal reform, they press toward a participatory and multi-cultural pattern of educational provision and practice” (Giroux, 1997: 124).

Those locked out or left behind will find it even more difficult than ever. “Those who have simply ‘mastered the basic skills’ and those who get through high school by taking courses that call upon them to engage in low-level recall, to be punctual in turning in assignments, and to place their name in the appropriate blank on the test form may get diplomas, but they will not do well in America of the twenty-first century” (Schlechty, 1990: 40).

According to Patricia Neal, Assistant Secretary for Vocational and Adult Education, “Most high schools in America today were designed for the industrial age. Teaching practices, organizational structure, and the use of time pretty much reflect industrial methods of the 1900's, no longer effectively preparing young people for the future” (McNeil, 2001: 1). She says high schools need to be redesigned to prepare students for the Information Age by providing a combination of strong academic skills, theoretical knowledge, and technical skills, as well as the basis for being lifetime learners.

The teacher, more facilitator than manager, coordinates and directs the learning experience allowing students to experiment and explore possibilities and
solutions. The primary purpose is to invent knowledge work for students to learn what they will need to know and how to function in a knowledge work, information-based society. "In America's best classrooms, the emphasis has shifted. Instead of individual achievement and competition, the focus is on group learning. Students learn to articulate, clarify, and then restate for one another how they identify and find answers. They learn how to seek and accept criticism from peers, solicit help, and give credit to others. They also learn how to negotiate — explain their own needs, to discern what others need and view things from other's perspectives, and to discover mutually beneficial resolutions" (Reich, 1991; 142).

Allowing students to integrate themselves and their experience into the educational process has promise not only for the new economy, but also for the students themselves and as a means of affecting change. The capacity to collaborate is often the only way and arguably one of the best ways to discover problems and solutions. The capacity to collaborate is facilitated through oral presentations, reports, designs, layouts, scripts and projections, in short, implementing all levels of Bloom's taxonomy (knowledge, comprehension, application, analysis, synthesis, and evaluation). Students are taught to seek consensus and to move forward with the plan. According to Reich, learning to collaborate, communicate abstract concepts, and achieve a consensus are not usually emphasized within formal education because it is harder to determine whether a particular students has mastered the specific material (Reich, 1991).
Unfortunately, the problem with this kind of restructuring is the present emphasis on lockstep grading systems, regular class schedules, standardized grading periods, and skill testing at short intervals. Such rigidity creates conditions in which many of the most promising innovations are difficult to implement and even more difficult to sustain. "If schools are to serve the purpose of the emerging information-based society is asking them to fulfill – in brief, to develop students as thinkers, problem solver, and creators– then the structure of school must be redefined to accommodate technologies appropriate to the task" (Schlechty, 1990: 41).

According to Giroux, the basis for restructuring schools lies in redefining the concept of power with respect to everyday experience and the construction of pedagogy and student voice. "Power, in this sense, signifies a level of conflict and struggle that plays itself out around the exchange of discourse and the lived experiences that such discourse produces, mediates and legitimates" (Giroux, 1997:121).

Because knowledge-work is human work, it is very difficult to quantify and therein lies the controversy. Schools organized around a positivist knowledge base (empirical or traditional base) often face resistance in the form of student disinterest, violence, failures, dropouts and thus schools tend to shift their concern from actually teaching "positive knowledge" to maintaining order and control. "Student voice is reduced to the immediacy of its performance, existing as something to be measured, administered, registered, and controlled. Its distinctiveness, disjunctions, its lived qualities are all dissolved under an ideology
of control and management. In the name of efficiency, the resources and wealth of student life histories are generally ignored. 'Knowledge' has little to do with the everyday life experiences of the students themselves, thus boredom and disruption are primary products of this approach" (Giroux, 1997:124).

Contrary to popular belief, a shift to a knowledge-work position from a positive-knowledge position, does not lower standards or is any way anti-intellectual. Quite the opposite, the knowledge work metaphor insists on standards. It is standards, not rules and procedures, that govern life among knowledge workers. Moreover, knowledge-work demands extreme attention to elements of culture, (ideas, propositions, beliefs, symbols and modes of explanation {ideology?}). Finally, knowledge-work organizations must be attentive to the needs of the human beings with whom they interact (customers as well as those who work for them) for these "human beings" are the most important resource in the organization. Knowledge work is human work (Schlechty, 1990).

School reform efforts share some similar characteristics with a shift to a knowledge-work position, including commitments to high universal academic standards as well as college and career preparation. Such reforms also offer opportunities to learn by doing; i.e., the classroom, workplace, community service, and involves "helping students learn to work in teams, creating smaller and supportive learning environments, investing heavily in staff development, using technology to enhance learning, exposing students to a wide range of career opportunities and what it takes to pursue them, building strong links
between secondary and post secondary schools, and forming broad community partnerships" (McNeil, 2001: 2).

Jean-Francois Lyotard asserts technology is and will continue to have a major impact on knowledge and it use. "It is common knowledge that the miniaturization and commercialization of machines are already changing the way in which learning is acquired, classified, made available and exploited. It is reasonable to suppose that the proliferation of information processing machines is having, and will continue to have, as much of an effect on the circulation of learning as did advancements in human circulation (transportation systems) and later, in the circulation of sounds and visual images (the media)” (Lyotard, 1993:1)

The potential impact on society and education is enormous. “Transformation in the nature of knowledge, could well have repercussions on the existing public powers, forcing them to reconsider their relations (both de jure and de facto) with the large corporations and more generally, with civil society,” facilitating a hegemonic crisis for American capitalism (Lyotard, 1993:2)

Therein lies the contradiction and hope in the new economy; a market need for worker centered creativity, cooperative problem solving, and knowledge vs. control, order, and the bottom line of capitalist production. It is the proverbial chink in the positivist armor is a cultural contradiction creating dialectical opening for conflict, accommodation and change. In order to take advantage of this opportunity, students will need to acquire advanced levels of economic literacy that will allow them not only to work in the marketplace but also to
transform it as part of a broader struggle to create a more egalitarian and just society (Giroux 1989).

However, lasting change is slow. History is full of examples (i.e., Russian and French revolutions) where the impatient have forced their vision of change only to have it backfire in a nightmare of oppression, violence, and unrealized dreams.

The key is in knowing that everything changes. The knowledge of how it changes is where the power lies and that conflict provides the impetus for nonviolent change. Dialectics are the mechanism for facilitating change. By being open to the opposing side, we learn about the strengths and weaknesses of both. Therefore, instead of focusing on who is right and wrong, it is about perspectives and finding solutions in developing a unity of opposites. Admittedly, it is a slow process, but what alternative do we have for the future?

Dialectical struggle is alive and well within education, albeit, an undercurrent. Although the majority of teachers are driven by governmental and market mandates and reform agendas to reorient their work practices and focus, they do so while attempting to hold onto traditional commitment, i.e., their students, good teaching, fairness, and democratic principles. Most will attempt to balance between commercial imperatives and democratic values. “They aimed to enhance their student’s capacities for social practice and, through this work with individuals, to enhance the capacity of various collectives, occupational or local communities, industry, their departments” (Seddon, 2000).
As Reich pointed out, identification, analysis and problem solving are necessary skills for the new economy. People struggling for social change may be caught in a kind of paradigm paralysis by not recognizing that the democratic focus of schools does benefit capitalist imperatives and may not necessarily be diametrically opposed, in short, to creating a dialectical opportunity. Although the pitfalls are many, the demands of the post industrial economy are facilitating a more democratic model in education if we seize the opportunity. Perhaps this is a cultural contradiction that can undermine corporate capitalism and empower the people.

The ability to think dialectically, or critically, is vital to the development of students as thinkers, problem solvers and creators for social change. As a consequence, they can be opened to the process whereby meaning is produced, represented, and consumed. “The critical aspect of that process represents a reflexive understanding of the interests embodied in the process itself and how these interests might be transformed, challenged, or sustained so as to promote rather than repress the dynamics of critical thought and action” (Giroux, 1997:85).

According to Daniel Bell, any tension creates its own dialectic. “It would be foolish to assume that immediate and manifest causes, important as they are, can wholly disorient a society as powerful as the United States. Underneath, there have occurred upheavals, sociological and technological, which have been reworking the social structure of the society” and “will outlast the immediate vicissitudes and continue to create deeper upheavals and tensions in the
society." He adds three areas of difficulty will have a profound effect the economic future of the United States: "the relation of democracy to empire, and the question of whether any democracy can maintain an imperial role, the participation revolution, with its challenge to technocratic and meritocratic modes of decision making; and a profound change in the culture, with the development a fundamental anti-rational and anti-intellectual bias in the arts and in the modes of experience and sensibility" (Bell, 1978: 179).

Structural and ideological reproduction does exist. Not only had I experienced it as a student, I have seen it in play and even facilitated it myself. There is a hierarchy, reinforced by the district, and state authorities, where Honors and Advanced Placement teachers and students receive more status, recognition and support than "regular" kids. Such teachers will complain and demand smaller classes (less than 30) for themselves and their students even though it means overburdening the rest of us with "regular," second language, special needs or low performing students (35+). It is the others that need the smaller class sizes and attention especially in the context of the No Child Left Behind legislation and proficiency testing.

As the school "browns" (a euphemism for an increasing minority population) some administrators and teachers vocally complain abound about the declining quality of the student, what they are capable of and how we have to adjust. On the surface it sounds appropriate, but it is really code for "dumbing" down the curriculum to deal with dumber kids. This attitude, while appearing somewhat racist, may at its root, reflect the frustration many of us feel about lacking the
skills necessary to help these kids achieve. Those who care, resist the ideological and structural restraints by simply choosing not to accept it as inevitable. Therein lies the dialectic and the opportunity for change.

Increased immigration coupled with downsizing and the outsourcing of jobs overseas, “the sense of possibility that has informed the American Dream of material well-being and social mobility is no longer matched by an economy that can sustain such dreams” (Giroux, 1997: 20).

Thus, by using such “tensions,” teachers and students can be empowered to break through “mystifications” and recognize how given ideologies serve the logic of domination. Ultimately, both can be taught to “deconstruct ideas and structuring principles and place them in a different framework that allows one to see the limits of specific ideas and formal properties, while simultaneously discovering the new and vital elements in them that can be used for change” (Giroux, 1997: 85).

As Giroux pointed out there is a movement to standardize not just curriculum, but also the way it is taught. The state has put forth “standards” that we are to adhere to. Each standard proposes a benchmark for specific information that is to be taught. There is a movement within the district to have each department administer a standardized test. I and my colleagues have had debates over what the implications of this will be. “Who will decide what is important enough to find its way onto such an exam?” In the case of world history, because the topic is so broad and expansive, the focus will be on what most of the teachers in my department actually teach, “western civ.” A few of us cut back on the British
history, in an attempt to include Asian, native American and African history. Their argument is that they can't teach it all. Thus the incluturation of ideology from their own educational histories may potentially win out. It scares me. It doesn't bother me that others don't emphasize what I do, the idea that this type of diversity can be narrowed to fit a cookie cutter, does. However there have been many complaints that these standardized corporate curriculum packages fail to provide the quality of education as promised by devaluing and de-skilling teachers and reinforcing traditional areas of inequality (Giroux, 1994).

Ill-Jo Han asserts Giroux is proposing a new theory of resistance and schooling which contains an understanding of how power, resistance, and human agency can be major factors in shaping and facilitating the democratic elements of public educations and its connection to the larger society. Reproduction theories have failed to question the role teachers play either as organic intellectuals or as political contestants who come out of a specific set of class, gender and racial experiences. Furthermore, reproduction theories have overemphasized the idea of domination and fail to provide insight into how teachers, students, and other human agents come together within specific historical and social contexts to both make and reproduce the conditions of their existence. These perspectives often neglect incidence of self-creation, mediation and resistance that can be used as theoretical cornerstones for analyzing the complex relationship between school and the dominant society. Therefore, a new theory of resistance is needed that emphasizes the role of human agency in schooling (Han, 2004).
The wonderful thing about the school I work at is that it is a battleground of raging dialectics and struggle. On the one hand, in attempting to adapt to new requirements in the global economy, the following programs have been implemented: block schedule, interdisciplinary courses, participation in school to work programs, push in technology and computer literacy, multi-culturalism and character education. On the other hand, lack of funding, cutting of programs, pressure to maintain standardized test scores, proficiency tests, drop-out rates, bilingual and special education programs are governmental constraints. Furthermore, oversized classes, inadequate pay, teacher shortages and lack of supplies such as text books all impact the success of the school, the students and the curricular strategies implemented. One teacher complained bitterly “They send us out to conferences and seminars to learn new methods and approaches, then come back and sell the staff on it. The whole time there is no support for implementing them. They tell us to work miracles and then tie our hands behind our backs, cut the ground out from under us in terms of funding, consistency and backing. Stuff rolls downhill and we’re at the bottom. I’m tired of fighting it, I just want to survive.” This teacher reflects an overwhelming sentiment that might explain why more than half of new teachers quit within five years. A recent survey in Education Week, a magazine that covers professional education issues from preschool to high school, revealed that 20 percent of new teachers leave the classroom after three years, and 50 percent quit after five (Oglesby, 2004).
Interestingly enough, there is a great deal of work done on student resisters, but very little work can be found on resistance of teachers. Han suggests major theories of reproduction theories have overemphasized the idea of domination in their analyses and have failed to provide any major insights into how teachers, students, and other human agents come together within specific historical and social contexts in order to both make and reproduce the conditions of their existence. That is, reproductionist accounts of schooling have continually patterned themselves after structural-functionalist versions of Marxism which stress that history is made "behind the backs" of the members of society. "The idea that people do make history, including its constraints, has been neglected. Indeed, human subjects generally 'disappear' amidst a theory that leaves no room for moments of self-creation, mediation, and resistance" (Han, 2004: 2). Giroux's account on this point is not fully understood without understanding his theoretical foundation on critical theory, which emphasizes the role of human agency in history together with the hope for change.

"As good jobs disappear and are replaced by temporary, contingent, and part-time work, competition among prospective workers intensifies. The school responds by making testing the object of teaching and, in the bargain, robs teachers of their intellectual autonomy, not to say intellectual function" (Feire, 1998:15). Mirroring their charges, teacher resistance to such pressure runs the gamut from passivity and apathy to open rebellion and is often characterized as a lack of professionalism. However, in discussions with some one of my colleagues, an interesting point was made: Teachers are classic passive
resistors. Every time we are faced with another way to improve our ‘product’, we smile and pretend to jump through the hoops. Then we go into our classrooms, shut the door and ‘teach’ kids. Even with the most conservative of us, the focus is on kids as human beings. Often the approaches differ, but the goal is the same. On the one hand, we try to teach them to navigate the job market and, on the other hand, the importance of critical thinking, ethics, social responsibility and democracy. The majority of teachers I have ever worked with wanted “their” kids to succeed and be productive whole human beings. Most of us hate the push to quantify and treat our students as numbers. Even those who are more motivated by their subject, or their egos than by kids express fear of the intrusion of ‘big brother’ and are extremely resistive to being told what and how to teach. All whom I spoke to, view programs such as No Child Left Behind as an attempt to remove choice and reducing all of us and most of all our kids into cookie cutter styled commodities. Faculty in all disciplines struggle to simultaneously prepare students for proficiency exams, a required sorting end game whose results have enormous bearing on whether the school will continue to exist, and what the teachers view as genuine education. In many ways, it is an attempt to give unto Caesar what is Caesar’s (Freire 1998).

Whatever the motivation, the resistance is real. “Resistance in the case redefines the causes and the meaning of oppositional behavior by arguing that it has little to do with deviance and learned helplessness, but has a great deal to do with moral and political indignation” (Han, 2004: 2).
Although classroom social relations appear, somewhat oppressive, they are still dynamic, much more so than reproductionist theory would ever acknowledge. Schools, and culture in general, are not static and one dimensional. Classrooms and the schools in which they reside, are sites of contest and struggle within the greater culture for legitimate experiences, reflecting the relative autonomy of education and culture in general. Resistance needs to be redefined in the language of possibility, as something positive, rather than negative. It is not that human action and resistance has not been acknowledged or recognized, it is often viewed as troublesome, rather than a point of possibility for change and providing opportunities for self-reflection and struggle in the interest of social and self-emancipation. The idea is to become transformative intellectuals that can facilitate students ability to overcome economic, political and social injustice, thus creating the conditions necessary for student empowerment as political subjects (Han, 2004).

However, resistance is not enough in itself. Resistance is simply the catalyst that facilitates dialectic accommodation and change. A good symbol for this process is the Yin Yang symbol of Taoism in reflecting the interdependence and unity of opposites, in other words, the ability to take diametrically opposed forces and make them one. As a culture we need to embrace conflict as a positive force for change, defining it in a constructive paradigm as opposed to a destructive one: a revolution of consciousness!

According to Paulo Freire one of the basic questions needing to be addressed is how to convert merely rebellious attitudes into revolutionary ones.
Merely rebellious attitudes or actions are insufficient. (Freire 1998) Resistance must be coupled with the ability to transcend, viewed as an opportunity for change, in short, praxis. “Praxis links liberatory education with social transformation. Social transformation is not merely the result of consciousness. Emancipation necessarily involves acts of individual and collective resistance and yet, not all resistance is effective” (Boyce, 1996: 3). According to Boyce, praxis is an iterative, reflective approach to taking action as an ongoing process of moving between text and theory, application, evaluative reflection, and back to theory thus enabling students to participate in collective actions. The dialectical relationship between social structure and human agency enables teachers to transcend the historical conditions of their political and cultural situation. Teachers are more than high-level technicians who simply perform what was already decided by “experts” far removed from the everyday realities of classroom life, but as transformative intellectuals who can make decisions of what and how to teach and act on the decisions they make especially for the development of a more democratic order and society. “Although dominated, critical subjects can find sites (or spaces) for counter hegemonic practices and solidarity” (Boyce, 1996: 2).

Moving through the Matrix

Ironically, the testing and standards being put forth are skill based including critical thinking, analysis and problem solving, and team work. These are skills
which can be equally effective in the developing democratic communities as
addressing market imperatives (Engel, 2000). The key is choice and
empowerment.

As I navigated my way through this research, it became increasingly clear that
the struggle over education is rooted much deeper in the American psyche. I
came to realize the debate is actually a tug of war between classism (positivist)
and romanticism, between two ways of understanding, two approaches geared
toward different objectives: capitalist reproduction or human empowerment. "A
classical understanding sees the world primarily as underlying form itself. A
romantic understanding sees it primarily in terms of immediate appearance. The
romantic mode is primarily inspirational, imaginative, creative, intuitive and
rooted in esthetic conscience" (Pirsig, 1974: 60).

The classicist mode proceeds by reason, by laws, objective methods. It is an
underlying forms of thought and behavior, (primarily defined as masculine) and
dominated the fields of science, law and medicine. It finds validation in external
"objective" information. It views the romantic point of view as frivolous, irrational,
erratic, untrustworthy, shallow, primarily interested in pleasure seeking, a
parasite that can not carry its own weight, a social burden. In contrast, the
romantic mode (usually associated with the feminine) proceeds from the
intuitive, feeling rather than facts, meaning is intrinsic and connected. The
romantic views the classic mode as dull, awkward, ugly and oppressive, the
world is to be measured and proved rather than simply experienced (Pirsig,
1974).
It suddenly occurred to me that the conflict and contradictions in education are not really directed for or against the reproduction of labor, but rather the most effective approach for achieving a specific goal. The conflict and resistance in educational reform and approaches a Battle Royale between classicism and romantic thought, the schizophrenic dichotomy ever present in the American psyche. Thus the tidal pull of the economic moon an ever present influence.

This would explain the back and forth political emphasis on "accountability, test scores and outcomes" and the "student-centered, whole child" approach to learning. The current debate seems to be over which approach will best benefit the new economy and its masters. Schools may not really be "sites of struggle" between democratic and capitalist ideals, but rather, a barometer of the waning and waxing trends of the economy's health. Perhaps, this is why "reforms" have done little to change the outcome.

"This is the source of the trouble. Persons tend to think and feel exclusively in one mode or the other and in doing so tend to misunderstand and underestimate what the other mode is all about. But no one is willing to give up the truth as he sees it, and as far as I know, no one now living has any real reconciliation of these truths or modes there is no point at which these visions of reality are unified. And so in recent times we have seen a huge split develop between classic culture and a romantic counter culture-- two worlds growing alienated and hateful toward each other with everyone wondering if it will always be this way, a house divided against itself" (Pirsig, 1974: 60-62).

Ultimately, according to Engel it is the choice between these competing ideologies and what we think of young people, their capabilities, potential and what we would like them to be. It is a choice of values that lead in one direction or the other. "If we see them as antisocial elements to be reined in and molded
into productive members of a consumer society, the purpose of schooling becomes training in behavior and skills appropriate for a system over which they have no control, and one that they will be unable to change because they will not learn how to do so. Market models then make perfect sense. But if we believe that young people need to see themselves as part of something with a constructive and positive direction that requires their full participation, the purpose of schooling becomes learning how to share in making decisions for themselves and society” (Engel, 2000: 65).

According to Boyce we traditionally prepare students for the world of work rather than lives of resistance. “We admire independent, critical thinking and wonder if our learners will become entrepreneurs because we cannot picture them as automatons in large corporations. Faculty rhetoric values self-directed learners, but our courses flow more smoothly if learners accept our course objectives, lectures, expertise, selection of readings, exercises, assignments, and evaluation without question or disagreement. We use power and voice to exert influence and suppress dissent, facilitated discussion about particular topics often leaves the essential frame of a course or the discipline unquestioned” (Boyce, 1996; 2).

However, the educator’s task is to encourage human agency and decision making, not mold their students into an army of “mini-me’s”. Yet, teachers are, for the most part, admitted control freaks. It is very scary being in front of 30+ untamed spirits knowing that if some order isn’t established it will be total chaos. One student can throw the learning environment into a battle for all out control.

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Maintaining control and the social order, are twofold, a matter of survival and part of how we are evaluated. Therefore, it is very difficult for us to hand over some of the reigns to our charges. One colleague expressed his difficulty in letting ‘go’. He has recently implemented the Paideia Method into his classroom. This method entails introducing a student-centered seminar into the lesson in which the student’s set their own goals for participation and do all the talking. The teacher’s only role is as facilitator, mapping, listening, and asking open ended questions centered around the text. “It is so hard not to give nonverbal or verbal affirmations because of the way it influences them. They try to please you rather than dialog with one another. The hardest part of the whole process is letting go. We like to be in control.” He said once he was able to overcome his need for control, the payoff was not just what the kids got out of it, but what he did as a human being and a professional. “You get to listen to the kids. It is important to listen to what they know. You hear whole different approaches you hadn’t considered before and you become a part of the learning process.” This process not only empowers kids by putting them at the center of learning, it empowers teachers as well.

Teacher-centered instructional methods have been repeatedly found too inferior to active learning methods in which students solve problems, formulate questions of their own, discuss, explain, debate, or brainstorm. When students work in teams or practice cooperative learning positive interdependence and individual accountability are also learned. “This conclusion applies whether the assessment measure is short-term mastery, long-term retention, or depth of
understanding of course material, acquisition of critical thinking or creative problem-solving skill, formation of positive attitudes toward the subject being taught or level of confidence in knowledge or skills” (Felder, 2004).

Boyce is emphatic that learners need the freedom to work with ideas without a requirement that they parrot the instructor’s point of view. “It is common for learners to expect that faculty explain things, demonstrate relevance, make persuasive arguments, provide solutions to problems and present complex ideas in a simple way. Their expectations are shaped by years of experience” (Boyce 1996; 8).

However, at the same time, “there is no emancipation without context or accountability” (Boyce, 1996; 1). There is still space for counter hegemonic practices and solidarity. Reflecting individually and then collectively, learners identify small and large actions they assess as necessary to sustaining a healthy economy and business climate and at the same time link liberatory education with social transformation through the process of moving between text and theory, application, evaluative reflection and back to theory. In short, basic problem solving skills (Boyce, 1996). Ironically, according to Reich and others, these are necessary skills for the new economy.

Despite the relentless battle against facets of democratic life, every relationship of “hegemony” is necessarily an educational relationship. “As part of this broader assault on democracy, public education has become one of the most contested public spheres in political life at the turn of the century. More than any other institution, public schools serve as a dangerous reminder of both
the promise and shortcomings of the social, political, and economic forces that shape society. Embodying the contradictions of the larger society, public schools provide a critical referent for measuring the degree to which American society fulfills its obligation to provide all students with the knowledge and skills necessary to participate in and shape democratic public life" (Engel, 2000: 113-114).

As sites that reflect the nation’s alleged commitment to the legacy of democracy, schools both challenge and threaten attempts by conservatives and liberals alike to separate ‘choice’ from the discourse of democracy and equity, and to diminish citizenship to a largely privatized affair in which civic responsibilities are reduced to the act of consuming. Hence the battle waged over education must be understood as part of a much broader struggle for democratic public life, the political functioning of culture, the role of intellectuals, and the importance of pedagogy as a political and moral practice in shaping various aspects of daily life (Engel, 2000).

Unfortunately, democracy and social values, are virtually impossible to quantify and in a culture steeped in positivist ideology it is even harder to demonstrate these values as superior to market imperatives at least in terms of numbers. However, human beings, are beyond quantification. Specific skills and levels of knowledge can be tested, however, the ability to process, integrate, use and interpret presents an entirely different dynamic. There are too many variables that come into play, socioeconomic status, ethnicity, language, life
experiences, native abilities, even arguably in terms of social status and acceptance, body type, hair and eye color come into play.

Unintended Possibilities

Interestingly enough what we think of as the underpinning of 21st century education has its roots in critical pedagogy. Methods such as student-centered learning, the negotiated curriculum, differentiated curriculums, interdisciplinary classes, multi-culturalism and other cutting edge approaches to education maximize student agency and decision making while maintaining the expertise of the teacher. Critical pedagogy is about education for social justice and democracy and the courage to model those principles in terms of who makes the decisions about what and how to learn, who does the talking, who takes the responsibility for learning, and who and how assesses the learning (Loreto Normanhurst College, 2004).

New economic conditions call into question the efficacy of mass schooling in providing the 'well-trained' labor force previously required by employers. Students need to navigate the indeterminate character of the economy, knowledge, culture, and identity. "Hence, it has become difficult, if not impossible, for such institutions to understand how social identities are fashioned and struggled over within political and technological conditions that have produced a crisis in the ways in which culture is organized in the West (Giroux, 1994: 8). The social uncertainty of economic dislocations, social movements,
and questionable political direction have resulted in psychological, economic and intellectual insecurities forcing our youth to increasingly inhabit shifting cultural spheres marked by a plurality of languages and cultures (Giroux, 1994).

"The sense of possibility that has informed the American Dream of material well being and social mobility is no longer matched by an economy that can sustain such dreams" (Giroux, 1994: 7). On the one hand, such hegemonic crisis can result in the search for order and more control as demonstrated by the increase in testing and accountability. However, on the other hand, the same hegemonic crisis can offer opportunities for empowerment by reevaluating value of a consumer-based economy and culture in favor of one less dependent on materialism and more on community. As students learn to collaborate, build consensus among diverse groups, to analyze and critically seek opportunities for new approaches to problem solving and changes they will (ideally) be able to facilitate a society in which all individuals have a voice (21st Century Schools, 2004).

Critical approaches to pedagogy have implications for not only creating a more just world free from oppression and suffering, but also to the way business itself is conducted. "We can work to develop (prospective) employees managers possessing personal voice, critical consciousness, and competencies of dialogue, conflict management, collaboration, organizing, numeracy, technological literacy and entrepreneurship . . . Critically conscious people with competencies for individual and collective action in business and organization are needed in US society" (Boyce, 1996; 11).
CHAPTER 6

CONCLUSION

Knowledge and education are symbolic of power and self-determination. The Cuban revolutionary Raul Ferrer once asserted, "In order to feel that he can be the owner of the word, he must sense that he can also be the owner of real things, the owner of his own existence, of his toil, of the fruit of his own work. In order to sense that it can be within his power to possess the work, he must believe that he can thereby gain the power to transform the world... to shape the world... to make it a more noble and more human place to be... there is no way to do this which is not political" (Kozol, 1978:367).

Though ambitious, the whole point is to offer informed choices, enabling the student to make the best of their talents, their strengths and skills to make informed viable career and life choices. Like the moon, no matter what, the economy is a constant presence. The issue then becomes; are we ruled by the economy, or is the economy ruled by us.. It is a matter of perspective, an issue of human agency, a universal need for balance. Paulo Freire said "Education functions as either an instrument which is used to facilitate integration of the younger generation into the logic of the present system and bring about conformity or it becomes the practice of freedom, the means by which men and
women deal critically and creatively with reality and discover how to participate in the transformation of their world" (Freire, 1972:15).

An ideology of collectivity also helps to create a "team" effort in rebuilding and maintaining that success even in the face of adversity not only for business but also for society as well. Schools should provide a model for democracy, and the experience of the students should serve as the organizing principle for the curriculum and inspire students to analyze, evaluate, and ultimately improve their social experience. The classroom should be a place where students can connect their own immediate environment to the world at large within the traditional academic requirements (Engel, 2000).

The solution may be as simple as treating kids in terms of their humanity instead of their commercial potential as commodities. As teachers we often make assumptions about the nature of our student's experience and where they 'are coming from' and then we teach on the basis of those presumptions. We impose particular forms of participation in the process and often undermine the results we hope to achieve. As teachers, we need to remember that listening is an act of learning. If we are open to the opportunities our students present us we can fulfill our responsibility to present challenging issues and material, and at the same time respect their individuality and foster in them a sense of responsibility and interest in pursuing an education (Sanders, 2002).

According to Mike Rose progressive classrooms are safe places, not just physically safe, but emotionally where a student can take a chance. Progressive classrooms are also respectful places, not only in terms of social behavior, but
also in terms of the material being taught. "It has to challenge and honor the people in the room and reflect high expectations across the board. Teachers must believe in the capacity of all the kids in that room to make a contribution. You know, you can set the high jump bar at seven feet and then stand back and say, 'Okay, jump over it!' but you also have to provide mechanisms to achieve standards. You have to organize classrooms and schedules, individualize instruction, develop lessons, and group children so that they can achieve those standards, make it over the bar" (Rose, 1997: 6-11).

Progressive classrooms are alive and vibrant places with varied approaches. They are alive with learning and the joy that only working with kids can bring. "Some had all the desks in a row and the teachers standing in front; in others, there was pandemonium—kids all over doing things. As different as these classes were, all had a sense of something intellectually vibrant, socially vibrant—there was sense among students that something good was going on for them" (Rose, 1997: 6-11).

Citizenship and character education undergird the entire curriculum. This growth in habits of living with others is the other side of the report card. Howard Gardner affirms, "Do kids understand more and are they decent human beings at the end of the day? ...Will the curriculum disclose an essence of what can be taught to secure the enduring understanding that students will take with them throughout their lives . . . If yes, then a school is successful" (Iron County School District, 2003). George H. Wood adds, "One of public educations most
fundamental purpose is the development in our children of the habits and heart and mind that make a democratic life possible. The democratic citizen is the one who has the intellectual skills and conviction necessary to participate publicly in making the many choices that confront us, in way that will promote the common good. Our ability to live together as neighbors, to tolerate our differences, and to arrive at mutually satisfactory solutions to common problems determines our ability to sustain and nurture democracy. Traits such as commitment to community and a desire to participate, values such as a sense of justice, equality, or liberty skills of interpretation, debate, and compromise, habits or reflection, study, examining multiple perspectives, form the basis of democratic citizenship" (Iron County School District, 2003).

Only if it were that simple. Unfortunately, from the minute they open their eyes to the minute they go to sleep, young people are bombarded by images of what it means to be beautiful, successful, powerful. Those images are antithetical to reflectiveness, thoughtfulness, and to careful, slow, hard intellectual work (Rose, 1996).

Despite our political perspectives, approaches, or even outcome, most of us take our jobs seriously and want only the best for “our children.” We recognize the obstacles, we know it is a work of faith, sometimes we see success, other times we will never know. The largest obstacle is to get the students to believe in themselves and see the possibilities, not to be their own worst enemy. This paper has only increased my resolve to push and plant seeds that may someday
take hold. It is an issue of faith, and hope. I know I am an instrument of the state and the capitalist system. I know I am a product of the same. I know and accept that in many ways, as do many of us, I reproduce and support the inequalities that exist. I know I also resist where I can. Perhaps it will inspire others to resist and alter the system ever so slightly. It is a battle over hearts and minds. Seeing a new way is seeing new possibilities, new solutions, i.e., problem solving skills. It really does not matter what class they come from. It is about getting them to see alternate perspectives and tapping into their compassion and the humanity that connects us to other human beings. The metaphors are just different. Will I get to every kid? More than likely not. I get to those I can. Like Harriet Tubman, I will guide whom I can through my leg of the underground railroad. The rest is up to them and life has a way of teaching you what you need to know.

Yet when all else fails, and I become frustrated, all I have to do is watch the kids and simply enjoy them. Nothing beats watching comprehension dawn on their faces as they make connections or the pride they exude when they have overcome social and self-imposed limitations, when they realize they ‘can’ and are ‘capable’ of doing. In the end, we are in the business of teaching kids. With all their goofiness, they are not about to let themselves be commodified. They will resist and if we listen, they will remind of what we have forgotten and of what is really important. Navigating the educational system is a process in an arena of struggle, which in the end, holds no guarantees. However, nothing worth
having comes easy or is clear cut. Perhaps if we work together, we will teach each other.
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