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An important concern shared by many critics of contemporary education is that schools dampen students' curiosity. Children are innately curious, constantly seeking to satisfy the questions that intrigue them. Their natural and social environment – the twinkling stars, crawling insects, historical monuments, cultural conventions, and people's idiosyncrasies – evoke a deep sense of wonder regarding why things are the way they are. The questions they pose to their parents, forever nagging them to answer their queries, are indicative of their genuine and deep bemusement. But something amazing happens as they go through their education in school: their curiosity attenuates. The burning desire to learn from their surroundings along with their sense of awe that was once induced by rainbows and pyramids weaken significantly as they spend hour after hour in the classroom. In fact, students become more and more disengaged from learning, viewing it as a dreary chore that must be endured. The last remnants of intellectual curiosity are close to nonexistent as they leave school with their diplomas. Although schools are entrusted by the public to inspire curiosity and engender self-directed learning, most students end up despising education as meaningless, irrelevant, time-consuming, and humdrum. Schools are partly responsible for turning eager and keen children into uninspired, incurious students. The conventions and routines that typify

the culture of schooling hamper curiosity. What, then, are the factors responsible for stultifying the mind?

I

Contemporary education is riddled with problems that defy easy, pre-packaged solutions. One underlying concern is the pernicious effect the system has on many students. Truancy is becoming more prevalent as more students fail to establish meaningful relationships with their peers and because they cannot attach much value to what they are required to learn. In response to the stress and strain they have to undergo in school, many resort to bullying, inflicting unimaginable suffering upon their victims. Others relieve the pressure by filling their time listening to inane music and watching violent films. It is also not uncommon to find many seemingly diligent students plagiarizing essays and cheating during quizzes because they are “taught to see each other as adversaries struggling to compete for the prize of being the one smart enough to dominate the others” (hooks, 2003 p. 131). Those who cannot bear the competition for earning higher GPA scores, leave the rat race, showing no interest in learning. Because the curricular objectives and content are not tailored to their interests and goals, many students acquire an intense distaste for learning, desperately wanting their time at school to end as soon as possible. Moreover, it is often very difficult for students to find an emotional outlet for their frustrations and anxieties because the time to pursue their interests outside school is severely restricted; they are often inundated with time-consuming homework and projects that carry little meaning to them. Consequently, the strain deepens and widens, bringing deep emotional pain to many. The effects of schooling can be insidious.

Another deleterious effect is that schools significantly dull the students' acute sense of wonder and awe. Before entering school, children can be seen ceaselessly asking a stream of questions to help quench their insatiable desire to learn about the world. As Kohn (1993) points out, "All of us start out in life intensely fascinated by the world around us and inclined to explore it without any extrinsic inducement" (p. 91). Adults are thus daily bombarded by a *mélange* of probing questions that reveals a genuine fascination with their surroundings. Being curious – where people wonder and ask questions in response to anything that baffles their mind – is the hallmark of almost every child and the inquiring frame of mind has no boundaries. From the color of the sky and their pet dog's behavior to the flight of airplanes and the existence of Santa Claus, virtually everything and anything can become the subject of their speculation and reverie. Their queries are sometimes causal; they seek the cause behind what they observe or the effect of what they are taught. Sometimes their questions revolve around normative issues such as why one course of action is morally right and the other wrong. Children are also inclined to ask questions regarding how certain things – trains, helicopters, cell phones, etc. – function. Philosophical explorations are also common; children probe adults with fundamental questions concerning death, birth, friendship, time, and God. The miscellaneous questions bear witness to their curiosity. A child who is indifferent towards her environment, unmoved by the furniture of the world, is simply unheard of.

Unfortunately their potent drive to learn and understand gradually wanes as they get older. There are multiple reasons that account for this tragedy. Parents bear some responsibility because instead of engaging in meaningful dialogue, they often get annoyed with their children's questions or give quick and easy answers that don't satisfy their curiosity. The media, airing many frivolous and uninspiring programs, is accountable for

mesmerizing the viewers' mind instead of inducing reflective thought. In addition to parents and the media, schools also mar children's zest for learning. Notwithstanding their *raison d'être* to inspire genuine love for learning, to enhance their willingness to intellectually explore uncharted territory, to dumbstruck students with counterintuitive discoveries and insights, schools generally have the opposite effect of killing the students' intellectual curiosity. Students who once found the surrounding panorama to be awe-inspiring conceive it as uninviting and banal. "Too many young people, when they enter formal schooling, feel the passionate learning of their early years begin to decline, often with permanent results" (Fried, 2001 p. 2). And given the sheer amount of time students spend in school, the effect is both deep and lasting. Their distaste for learning becomes a deeply ingrained outlook that cannot be easily jettisoned. The longterm effect of corroding students' curiosity is most unfortunate because it is curiosity that prompts people to discover scientific laws and explanatory schemes. But how does the educational system stifle curiosity? In what follows, the factors that engender incuriosity will be examined.

II

1 Curiosity and Testing

Through multifarious means, teachers impart what is and isn't valuable in education. Sometimes they discuss or give a lecture on the importance of particular study skills and how they can aid learning. Students are, for example, told the significance of coming to class well-prepared and the value behind periodically reviewing materials covered in each lesson. Teachers also convey the importance of particular dispositions by displaying them in class. They demonstrate the importance of critical thinking by critiquing the views

their students articulate or they demonstrate the value of humility by showing their willingness to learn from what their students have to say or by admitting their ignorance if they cannot answer what students ask. Particular values are also transmitted through rewards and punishments. Students are taught to be responsible and diligent whenever they get punished for submitting late assignments. Rewards like trophies, medals, and stickers are commonly given to reinforce behavior that is deemed pivotal and praiseworthy. The kinds of tasks that are commonly set also reveal the values teachers espouse. In classes where cooperative tasks are the main mode of learning, students learn to regard their peers as valuable sources of knowledge and insights, not rivals to be beaten in the contest for better grades. Besides teaching their subject, teachers use different means to instill the value behind a wide spectrum of dispositions, behaviors, attitudes, and skills.

Tests constitute another way of directing the students' attention to what is and isn't valuable. Besides revealing the extent to which their students have acquired what they have been taught, the tests teachers administer reveal what is and isn't important in learning. The questions that appear on tests disclose what students should carefully attend to when studying. They are what teachers want their students to internalize in a meaningful way. Items that are not crucial are not included in tests. They are left out because their acquisition doesn't have an important bearing on learning. As Eisner writes (1991), "More than what educators say, more than what they have written in curriculum guides, evaluation practices tell both students and teachers what counts" (p. 81).

Regardless of the subject, tests for the most part consist primarily of questions that assess the students' ability to disgorge large amounts of factual information they were taught in class. Instead of assessing higher

order cognitive processes – the ability to think counterfactually, to draw inferences from available data, to make predictions from the information given, to entertain alternative ways for understanding any given phenomenon, etc. – tests usually check whether students can accurately recall the facts and figures they had to commit to memory. In history, students who can regurgitate dates and the names of key historical events earn high marks. In biology, students who can accurately rehearse the names of body parts and their anatomical functions are awarded good scores. Tests in geography also reflect this obsession with facts; questions typically require students to name, say, the highest mountain in Africa, the capital of Bulgaria, and the deepest lake in Canada. Instead of gauging the students' ability to infer the author's underlying philosophy of life from the narrative or whether they can critique how the protagonist responds to her fate, tests on literature typically center on factual questions (i.e.: where the story took place, how many children the protagonist had, the three metaphors used to illustrate the nature of love, etc.) that can be retrieved directly from the text. Because music is the quintessential example of human creativity and imagination, one would naturally expect testing in music to depart from the overall penchant for facts. On the contrary, students are typically asked to identify the works of famous composers, define key terms in musicology such as 'harmony' and 'counterpoint', and describe the salient characteristics shared by a particular movement in the history of classical music. Tests, in other words, prize factual knowledge and the ability to store it inside one's long term memory. But as anyone can attest, most of what is crammed before tests is cast into oblivion after assessment. As Frank (1998) remarks, "Memorization is emphasized, the inevitable forgetting is ignored, and no attention at all is paid to what students actually and permanently learn about themselves and education" (p. 65).

Given how tests are biased towards factual knowledge, students are obviously led to value the acquisition of facts over skills, abilities, or dispositions that they don't assess. Along with the ability to think outside the box or formulate original hypotheses, one of the many things tests don't assess is curiosity. When students are curious about something they have been learning, they seek answers to questions that interest them. Curiosity is rooted in uncertainty; students become inquisitive when they don't know the answers to the questions they have. But being curious also means that they really want to know the answers; it involves the willingness to pursue a question until a satisfying answer is found. Otherwise they only have a passing interest in the object. As Bruner writes (1966), "Curiosity is almost a prototype of the intrinsic motive. Our attention is attracted to something that is unclear, unfinished, or uncertain. We sustain our attention until the matter in hand becomes clear, finished, or certain" (p. 114). Tests, however, don't typically ask students to identify what they find perplexing or the questions they have after learning a particular issue or topic. They want to determine what students know with certainty, not what they are uncertain of; what they can parrot verbatim, not what they cannot fathom. Tests are designed so that students can give clear-cut answers to clear-cut factual questions.

Tests in history test whether students know when the French Revolution started and how long Napoleon ruled his empire, not what they found genuinely puzzling about how people lived and thought during this period in history. After completing a unit on astronomy, students are typically asked to name the different planets that orbit the sun but not whether they can describe what they thought was most mysterious and confusing about their behavior, structure, weather, or environment. A standard test on grammar assesses the students' ability to conjugate verbs and differentiate different types of clauses, not what grammatical rule they

find puzzling. In biology exams, students cannot query whether – as many textbooks imply – “humans have a privileged status among the forms of life making up the biotic community” (Bowers, 1993, p. 123) after learning how this belief has led people to desecrate the ecosystem through human consumption and technology. Through taking such tests countless times, students are gradually led to believe that the primary purpose of education is to produce people with a veritable storehouse of knowledge. Tests condition students to value knowledge over ignorance because they invariably assess what students know, not what they find puzzling, mysterious, or incomprehensible. Students are led to believe that curiosity, which stems from ignorance, is not valued highly in schools because tests condition learners to conceive ignorance as a deficit, a flaw, a shortcoming that must be overcome through herculean effort and tireless studying.

Students are inclined to ascribe both meaning and value to what appears on tests. Though teachers may preach the importance of being inquisitive, students will find such pontifications superficial and unconvincing as long as they are not assessed for being inquiring. Teachers can continue devising tests that are oriented towards factual knowledge and memorization. They are relatively easy to make and check. Such exams may help produce a handful of students who has an encyclopedic knowledge of disconnected facts. The downside is that many will remain unconvinced that curiosity is what drives people to make new discoveries and postulate original conjectures.

2 Curiosity and Content

Schools serve a myriad of goals that all aims to make a positive contribution to the students' wellbeing. One such goal is to equip students with the necessary and rudimentary skills (literacy, the ability to type, basic mathematics, etc.) that will enable them to find work and make a living.

Another important function of schools is to transmit moral values and beliefs that are deemed important by society. Schools have norms and regulations which are often negatively reinforced with penalties and punishments in the hope that students will internalize appropriate moral behavior and values. An additional overarching goal is to make students more knowledgeable about themselves and the world. To help meet this end, the curriculum mandates the subjects they should learn and each subject entails a wealth of information for students to acquire.

Under the current educational system, schools place a premium on the acquisition of knowledge. From the first day of school, students listen to lectures and explanations, read their textbooks, fill out worksheets, and do homework to acquire a large body of knowledge that is considered valuable. The knowledge they are taught consists mainly of facts, and there are different types of factual knowledge. When studying a foreign language, students learn the rules of grammar and the meaning of new lexical items, coupled with the appropriate conventions that must be followed when communicating in the target language. History textbooks are replete with the names of important historical figures and when they made their impact in history. Besides names and dates, they might learn the sociocultural conventions that were prevalent during the time they are studying. In mathematics, students are taught mathematical formulas so that they can solve word problems and prove theorems. The relentless imparting of facts doesn't end with mathematics. The names designating different parts of a plant, the chemicals that form the DNA molecule, the jargon that refers to the constituents of a human cell, and other nomenclatures are learned in biology. It would not be an exaggeration to claim that students spend the vast majority of time in schools memorizing factual knowledge (dates, names, definitions, rules, conventions, formulas, etc.).

Building a strong factual foundation in any given subject is indispensable. Any view of education that discounts the acquisition of facts as meaningless endeavor is being too harsh and disparaging towards factual knowledge. After all, students will not be able to expand their understanding of a subject unless they study and understand challenging texts that are slightly beyond what they know. In order to critically appreciate what they read, however, they will need to be conversant with the subject. Otherwise a lot of what they read will not make sense. Students won't be able to read about and critically appropriate cutting edge research on subatomic particles if they don't know what an atom is. Nor would they be able to fathom texts describing the complex processes involved in natural selection if they only have a tangential understanding of biology. Furthermore, one cannot think critically within any given subject if one isn't acquainted with the facts and data that are taken for granted in the field. As Hirsch argues (1996), "One cannot think critically unless one has a lot of relevant knowledge about the issue at hand" (p. 247). One won't be able to give an informed critique of Marxism if one is ignorant of how people with power maintain the status quo and the actual conditions under which people of the working class live. Nor would students be able to offer a convincing and rational critique of Nazism if they are not acquainted with its history and ideology. Students will also be hard-pressed to evaluate critically the aesthetic merit of Impressionism or Cubism without knowledge of art history.

Notwithstanding the benefits, the current one-sided infatuation with facts is deeply problematic because facts rarely ignite intellectual curiosity. Of course, any piece of information has the potential to spark interest. Some are enthused by the biographical details of a renowned scientist while others are enraptured by how clouds form. But facts by themselves often lack the power to spawn and maintain curiosity. Why is this the case?

People usually become curious when they come across facts they find puzzling, or pieces of information that don't neatly fit into their mental schemata. Some, for instance, are bedazzled by abstract paintings and postmodern music because they don't have the resources and background knowledge to make much sense of their peculiar depictions and seemingly incoherent melodies. Others are jolted when through their reading of history and literature they encounter sociocultural conventions and customs that markedly differ from those they are familiar with. Still others are intellectually awakened when they learn about scientific discoveries that don't correspond to their deeply ingrained beliefs they have about the natural world. But on the whole there is nothing very puzzling about a lot of the facts they learn at school. They are mostly inert and bland, not provoking much emotional or intellectual response from learners. They just have to accept them at face value and store them in their memory. There is nothing perplexing about Vaduz being the capital of Lichtenstein or Kilimanjaro being the highest mountain in Africa. Nor is it very intellectually stimulating to learn that the carbon atom has six electrons and that it was Newton who discovered the fundamental principles of calculus. Nor is it extremely counterintuitive and awe-inspiring to learn chemical formulas and mathematical equations in order to mechanically solve complicated equations.

Curiosity is also aroused when what one learns is shrouded in mystery. Many are enraptured and find learning enticing when they are acquainted with issues and topics that invite much speculation and conjecture. Topics like the origin of life, the cause behind the extinction of dinosaurs, why people have wars, and how the Pyramids were built can and often do provoke curiosity because we still don't know the answers to these questions. The human mind is prone to deep speculation and endless conjectures when it confronts what is still wrapped in mystery. But a lot of the facts and figures

that are imparted to students fail to produce a deep-seated sense of wonder. They are mostly indubitable and incorrigible truths that don't imply or entail any uncertainty and mystery. "Closed packages of information are taken as facts. Facts are taken as absolute truths to be learned as is, to be memorized, leaving little reason to think about them" (Langer, 1997 p. 71). The fact that the spinal cord is protected by the vertebrae or that the esophagus connects the mouth to the stomach or that cheetahs and leopards feast on gazelles and wildebeests doesn't stir the imagination with awe. Facts alone rarely have the power to induce reflective thought or creative imagination.

Furthermore, facts are taught for students to memorize. Dates, names, definitions, and formulas are not imparted so that they can be forgotten the next day; facts are taught so that students can store them in their long-term filing cabinet and retrieve them when necessary. Because the number of facts they are expected to memorize for each subject is large, students end up spending a significant portion of their time cramming information. This doesn't help nurture curiosity. For students to wonder about what they are learning, the mind cannot be preoccupied storing away information all the time. If the mind is busy functioning in a particular mode – whether it be analyzing, inferring, predicting, memorizing, etc. – it doesn't allow much space for other cognitive processes to operate. Time spent memorizing means less time spent in wondering about what is being memorized. It is hard to imagine how students can ponder about the etymological roots of words while they are busy remembering the meaning of thirty new words for an upcoming vocabulary quiz. Nor would students be inclined to philosophically speculate whether history, behind all the strife and conflict, reveals a purpose, aiming steadily towards an overarching goal if they have to commit huge amounts of historical dates and facts to memory before an important test. Given the vast number of discrete facts that students have to

store, a significant portion of their time in school is spent in memorization, not allowing much room for querying the content they are taught.

Though students shouldn't be deprived of factual information, a system of education that underscores the acquisition of facts at the expense of curiosity is counterproductive. In order to help create the conditions where curiosity can flourish, facts that don't spark curiosity should be minimal. To state the matter differently, the content they learn should be made more provocative and awe-inspiring.

3 Curiosity and Instruction

Not only content, or what students learn, but the ways in which they are taught can have an important bearing on learning. It is undoubtedly true that productive learning is not possible unless students are willing to work hard. Teachers who are knowledgeable, dedicated, and experienced can still fail to teach something meaningful and lasting when faced with recalcitrant students who disparage studying. Yet their students' willingness to learn, though important, is not enough. They must be exposed to quality teaching. Pedagogy that is rooted in dubious instructional strategies and uninspiring tasks can hamper learning. Many keen and bright students may fail to bloom if they are instructed by unprofessional and inefficient teachers. The type of instruction students receive can have both positive and negative effects.

Teaching can be ineffective in many different ways. It can be confusing because the teacher lacks the ability to clarify difficult concepts using appropriate analogies and metaphors or if the transition between different phases of the lesson is not smooth and coherent. The teacher can impede learning by creating a tense environment; she can adopt a domineering and authoritarian role and severely reprimand students for failing to conform to class rules. Teaching can also become monotonous and arid if teachers

engage in long, didactic lectures without interspersing their talk with occasional questions addressed to their students. Students can also become demotivated when their teacher doesn't offer many stimulating challenges; the questions she poses and the tasks she sets may simply be time-consuming busywork that fails to stretch their minds and provoke critical thought. Teaching can also be unproductive if it fails to inspire, and instill the value behind, curiosity; lessons can dull the imagination and numb any interest in learning. How can this happen?

Teachers are prone to deliver the important insights, theories, and discoveries that are important in their field without making any reference to how curiosity brought them into being. Natural scientists, for example, search for universal laws or explanatory frameworks that give an accurate and coherent account of natural phenomena. Their long and arduous exploration is often inspired by a deep and strong desire to know what they can't understand. They embark on their scientific journey to explain a particular phenomenon or solve a deeply disturbing anomaly because the object of their investigation has drawn their attention and has whetted their appetite to find an answer. Their attitude towards what they are investigating – whether it is gravity, electricity, beetles, or squids – is not one of detached indifference but is characterized by awe and wonder. Newton's laws of gravitation and Darwin's theory of evolution spring from a quest inspired by curiosity. Yet it is not entirely uncommon for teachers to dissociate the scientific findings from what motivated their founders to seek them in the first place. Findings are often delivered in a neat package divorced from the scientists' wonder and passion that infused their research and helped them make their discoveries. The product of their search is cut off from one of its most important underpinning causes. If we want students to become more inquiring, we need to teach how curiosity spurred

intellectual feats. Put differently, they need to learn that scientific investigations into the outer reaches of galaxies or the peculiar behavior of quarks will stagnate if people are not enthralled by the complexity of the world. Similarly, in history, students learn about the rise and fall of empires and the birth and death of kings documented by historians. Teachers instill discrete pieces of historical information without referring to what motivates historians to unveil the past. Historians embark on their investigations because their curiosity is aroused by the past; it poses an anomaly (i.e.: the cause behind a particular war or the effects of a political unrest) which they seek to answer by reading documents, conducting interviews, and analyzing data. Research in history doesn't stem from a detached, philosophical conversation with the past. Again, it is not atypical for teachers to cover the historical facts without even alluding to how historical inquiry arises from curiosity. This neglect is unfortunate. The value of curiosity can be fostered if teachers elaborate upon its importance and relevance in historical inquiry.

Furthermore, students become curious if what they are learning contradicts their beliefs or values. To intellectually awaken students, they need to realize that there is something problematic or fallacious with their thinking in light of what they learn. Their thinking needs to be challenged or falsified. As Hansen (2011) rightly argues, "Education sometimes necessitates discomfort, unsettlement, and friction" (p. 104). Teachers don't typically adopt this mode of teaching. First, teachers often fail to make students aware of what they actually think about a particular issue or concept before teaching something that is not compatible with their beliefs. If the beliefs that they implicitly hold is not brought to their attention, if what is latent is not made explicit, their curiosity will not be aroused even when they come across materials that contradict their thinking. But students will become keen if they realize that the tacit assumptions they accept as true are incongruent

with what they are taught. Thus, instead of, say, imparting a scientific theory for passive, rote intake, teaching can in principle be made more effective if students become conscious of a contradiction between what they believe and what the theory maintains.

Second, teachers are not inclined to teach ideas, concepts, or facts that don't mesh with what their students think. Materials that challenge their students' taken-for-granted assumptions are rarely covered in class. What they learn is usually a natural extension of, or totally unconnected to, what they think and believe. But they will become more interested in what they have to learn if their complacency is questioned by having their dogmas and preconceptions exposed for their inconsistencies and limitations. People tend to become intellectually restless if they realize that there is something fallacious with their mode of thinking or when they become aware that the beliefs and values they endorse aren't true. As Ericksen (1984) writes, "We feel uncomfortable with information gaps or with loose ends dangling" (p. 50). Students will typically nod off and sleep as they listen to their teacher enumerate the ten main side-effects of smoking but their ears will prick up if, contrary to what they think, they learn that smoking can have a positive effect on physical health. Or their curiosity will be aroused if, contrary to common sense, they learn that light bends when it approaches massive objects and that it is theoretically impossible to simultaneously measure both the position and velocity of subatomic particles. Insofar as what students believe and think remains unchallenged, an important means of arousing curiosity is left dormant. As Maxine Greene (1986) articulates, "Experiences of shock are necessary if the limits of the horizons are to be breached" (p. 101).

The third mode of teaching that inhibits curiosity is not only commonplace but is regarded highly by teachers. Curiosity, as we have seen, is a state that arises when one doesn't know the answer to an intriguing

question. But teachers ordinarily don't want their students to experience uncertainty and remain in the dark. Teachers are at pains to give detailed and meticulous expositions so that they can dispel any confusion or uncertainty students might have towards what they are learning. Effective teachers are thought to clarify, not to obfuscate; they sedate their students' mind with clear explanations, not jolt them out of their complacency by posing Socratic questions. Thus, teachers typically outline the three main cut-and-dried reasons why the atomic bomb was dropped instead of arousing curiosity by leaving this question unanswered. Rather than building students' interest in the psychological roots of Hamlet's indecisiveness or Raskolnikov's will to power by exploring the question in open-ended discussions, teachers scrupulously and painstakingly delineate the causes for ephemeral, rote memorization. The flip side of reducing uncertainty by giving elaborate explanations is that this approach to teaching doesn't create the conditions – ambiguity, uncertainty, mystery, etc. – that foster curiosity. Incurable certainties rarely provoke the question, "Why?"

4 Curiosity and the Curriculum

In most educational contexts, teachers are not at liberty to decide what to teach their students. They often must follow a pre-specified curriculum that prescribes both the content and skills the students must learn in detail. The language curriculum, for example, outlines the vocabulary, functional skills, and grammar that must be taught at any given stage. The physics curriculum, to mention another example, prescribes the important, groundbreaking physical laws that need to be taught in conjunction with the whole array of facts uncovered by the experimental method in physics. In art, students trace the long trajectory of human creativity, learning about the aesthetic significance of the different masterpieces that has withstood the

test of time. Regardless of the subject, the content students learn is predetermined by the curriculum, and every teacher is expected to deliver the curricular goods by closely following what the curriculum decrees.

This top-down approach to curricular design has been the subject of much criticism on different grounds. It is often claimed that the autonomy and professionalism of teachers, for instance, are denied because they are instructed to passively and obediently mediate what the curriculum mandates and cannot depart from what it instructs them to teach even when they find materials that are more important and meaningful. Some argue that the curriculum is deeply flawed because the different subjects that form it are not integrated in any meaningful way. There are no links and connections between history and social studies or literature and music. Interdisciplinary exploration—where issues raised in history class are investigated from a slightly different angle in social science—is rare. An additional problem is that many students are demotivated by the curriculum because they are denied the right to shape the curricular content in any way. People in general become disengaged if they lack the power to shape the quality of their own experience. Because there is very little room for negotiating the curriculum with their teachers, students experience it as another imposition from authority which they have to reluctantly accept. As Sarason (2004) maintains, “Students feel like and are the most powerless group in the arena of schooling; what they will learn, when they will learn it, the ways they will learn in are the prerogatives of others” (p. 173).

An even more serious problem with standard curricular practice is that it fails to inspire curiosity. One of the disturbing features about the curriculum is that although a wide spectrum of topics and issues is covered within any given subject, none is pursued in any great depth. The curriculum scratches the mere surface of a wide array of topics without delving deeply

into any of them. Thus, instead of focusing on a particular period in history, it is not uncommon for the history curriculum to expect teachers to cover the history of Western civilization from the ancient Greeks to the beginning of the Cold War in one year. Breadth again is valued over and against depth when the biology curriculum entails a vast plethora of materials ranging from botany, zoology, and anatomy to natural selection and genetics without probing any single subject beyond superficial treatment. "Since there is too much to do, much is done superficially. Quantity is the enemy of quality" (Sizer and Sizer, 1999 p. 49). When breadth is underscored and valued in this way, it is extremely difficult to nurture curiosity. Students might get interested in the behavior of chimpanzees or the factors that led to the demise of the Third Reich but they won't be able to pursue their questions because the class doesn't spend much time on any single issue. Most of the questions they pose will be left answered, since they don't have the time to grapple with their questions and reflect deeply on them. Another factor that compounds the problem is that the same material isn't revisited because the curriculum isn't cyclical; once an issue is covered, the same material won't be reexamined. This again implies that students cannot think through the questions that were provoked by the issues they encountered. The questions must be left behind because they will be irrelevant when studying a totally different topic. There is very little point wondering about photosynthesis that was covered last week when the class is studying about the structure of the human cell. The interest in plants must be set aside so that the mind can attend to what is newly taught.

Another reason why the curriculum fails to nurture curiosity is that it doesn't for the most part reflect the personal interests students have. Needless to say, most students have interests that preoccupy a lot of their time and attention. Some find sports exhilarating, becoming oblivious to their

worries when chasing after the ball on the field. Others are hooked on movies, experiencing love and death vicariously through immersing themselves in different narratives. Despite the difference in what they find engaging, students are usually very well-informed about what they are interested in. Students who are into baseball not only know a lot about its history but they can recall the names of different players and their previous batting averages with amazing accuracy. Those who have a passion for cars know a lot about engines and machineries that can even astound the professional mechanic. Students are knowledgeable about their interests partly because they seek answers to questions they pose and they raise questions because the subject interests them. In other words, their extensive knowledge is derived from curiosity and the interests they have. Unfortunately the curriculum is comprised mainly of subjects that don't dovetail with what students find intriguing. Many find literature and mathematics to be dry, academic, and uninspiring. They sit at their desks seven hours a day, five days a week, taking notes and listening to longwinded lectures because they have to. It is another chore they are encumbered with, another imposition they have to endure. As Meier (2002) observes, "They sit, largely passively, through one after another different subject matter in no special order of relevance, directed by people they can't imagine becoming, much less would like to become" (p. 12).

The negative indictment against the curriculum doesn't mean that students should be fed a curricular diet consisting only of materials that are in alignment with their predilections. After all, there are rudimentary skills such as writing, reading, and calculating which students must acquire whether they like it or not. Without the ability to read and write, students will not only fail to find meaningful work but more importantly they won't be able to "take risks, act on their sense of social responsibility, and engage the

world as an object of both critical analysis and hopeful transformation” (Giroux, 2011, p. 14). Yet students should be allowed more time to pursue their interests; more room should be allocated for individualized learning. Instead of having every student studying the same material at the same pace and in the same way, they should be spending more time engaging in personal projects, where they attempt to answer questions to problems that intrigue them.

III

Intellectual incuriosity characterizes the mindset of many students both during and after their years spent in school. Though defenders of the present educational system are inclined to point their fingers at the students’ frivolous preoccupations and their morally dubious upbringings for their mental stagnation, schools bear some responsibility for seriously undermining the students’ inner drive to learn about themselves and the world. Tests, for one thing, are obsessed with assessing the students’ ability to regurgitate facts and what they have to commit to their long-term memory consists mainly of banal, uninspiring data that doesn’t stir the imagination. The kind of instruction students receive can also stifle curiosity; for the most part, teachers resort to didactic lectures where knowledge is transmitted from the omniscient teacher to ignorant and passive students. The curriculum too is, to a large extent, not thought-provoking; the themes are not only covered superficially, but they don’t touch upon the interests students have. In response to this educational quagmire, teachers need to adopt piecemeal measures – setting more interesting tasks, sharing teaching responsibilities with students, dispensing with fact-oriented tests, etc. – to help provide an intellectually stimulating and rewarding environment.

Otherwise students for the most part will continue despising education as a worthless, time-consuming endeavor.

References

- Bowers, C.A. (1993). *Education, Cultural Myths, and the Ecological Crisis*. New York: SUNY Press.
- Bruner, Jerome. (1966). *Toward a Theory of Instruction*. Cambridge: Harvard
- Eisner, Elliot. (1991). *The Enlightened Eye*. New Jersey: Prentice Hall.
- Ericksen, Stanford. (1984). *The Essence of Good Teaching*. San Francisco: Jossey-Bass.
- Fried, Robert. (2001). *The Passionate Learner*. Boston: Beacon Press.
- Giroux, Henry. (2011). *On Critical Pedagogy*. New York: Continuum.
- Greene, Maxine. (1978). *Landscapes of Learning*. New York: Teachers College Press.
- Hansen, David T. (2011). *The Teacher and the World*. New York: Routledge.
- Hirsch, E. D. (1996). *The Schools We Need*. New York: Anchor Books.
- Hooks, Bell. (2003). *Teaching Community*. New York: Routledge.
- Kohn, Alfie. (1993). *Punished by Rewards*. New York: Mifflin Company.
- Langer, Ellen. (1997). *The Power of Mindful Learning*. Cambridge: Da Capo Press.
- Meier, Deborah. (2002). *In Schools We Trust*. Boston: Beacon Press.
- Sarason, Seymour. (2004) *And What do You Mean by Learning?* NH: Heinemann.
- Sizer, Theodore and Sizer Nancy. (1999). *The Students are Watching*. Boston: Beacon Press.
- Smith, Frank. (1998). *The Book of Learning and Forgetting*. New York: Teachers College Press.