

My Opinion on the Problems of the Singapore Education system

Author: Eric (<http://rainbowhuman.com>)

Inputs, refinements, and editing by:
Christopher ([chrisbok @ pacific.net.sg](mailto:chrisbok@pacific.net.sg))

Version 2.2.2
Created: 7 August 2002

Contents

1. Introduction
2. The Situation Now
3. Why do I write this?
4. Defining True Learning
5. Learning in the education system
6. An analysis of the mindset of the system
 - Mindset: We are the best
 - Mindset: System Oriented
 - Mindset: The Elders or High-ranking people know better
 - Mindset: Only professionals can have the say
 - Mindset: Scarcity and Elitism
 - Mindset: Syndrome-oriented
 - Mindset: Kiasu-ism
 - Mindset: The less disclosure the better
 - Mindset: Grade Inflation little concern
 - Mindset: Confusing school and work
7. What the System can do
8. What we can do
9. Conclusion

Introduction

I would like to express my personal opinion about the education system in Singapore.

The education system has failed to achieve its Desired Outcomes [<http://www1.moe.edu.sg/desired.htm>]. Despite what the system publicly declares, it actually desires to maintain a mindset of scarcity [such as with the concept of elitism] and to continue with its old traditions, policies and mindset.

Faced with the intense incongruence of what it really wants to achieve and what it publicly thinks it should achieve, it blunders with its implementation, erring on the side of tradition. Engaged in a state of denial, it vocalizes the desired outcomes more to give others a good impression of itself rather than actually believing and committing with them.

What do I mean by “personal”?

I understand that I have different ways of thinking and different mindsets compared with most people. My comments only show my perspective, not an absolute authoritative assessment of the situation. I admit to have a certain level of subjectivity due to my previous involvement in the system and my limited set of experiences.

After graduating from it, I currently do not have direct interests in the education system in Singapore. Unless invited, I do not wish to have any direct involvement in the political affairs of the education system except providing advice like this one. I have no desire to dedicate my life to this area.

The Situation Now

Schools Today

What do we see when we go to school?

Teacher-originated Initiative

We see arrays of classrooms organized neatly, with a table in front for the teacher, a chalkboard or whiteboard, and some other accessories. When the class starts, the students sit in the rows of tables and chairs and the teacher stands in front of the class pointing at the whiteboard. Like a boss instructing his subordinates, the teacher instructs the class on how to learn.

Student initiative, unless expressly approved by the teacher, appears at best as a distraction (such as putting up hands to ask too many questions or reading other books during lesson) that the teacher should squash. At worst, the school would consider it disruptive behavior (such as skipping classes, doing other activities in class) and wants it stopped immediately. As a student, if you just do what your boss the teacher wants you to do, and you would not get into trouble.

The meta-lesson: You, the student, does not matter.

System-originated Timetables

We see timetables organized in a schedule of discrete, uniform chunks of time and (for higher institutes of learning) class schedules arrayed in terms of semester.

No matter how mundane or important a subject, it has to fit into the chunks of time called lessons allocated to it. You would only have an hour to explore chapter 3 of Macbeth, or another hour to explore ethics and morality, and then yet another hour to cover up the introductory chapter of algebra.

You might want more or less, or a different subject, but the school imposes its will. No matter if your cat died, if your favorite soccer team won the World Cup, you won a cruise to the Amazon, or you just feel like studying art, if the lesson plan writes "Introduction to Fluid Dynamics", then you will have this lesson no matter you like it or not.

The meta-lesson: You, the student, does not matter.

Same pace studying

We see everyone studying the same subjects, at the same speed, in the same way as the rest of their age group in the same stream. You have little choice, and if you dare to speak up that, you have your rights to learn as an individual, you would in effect rebel against your school.

You the genius might finish everything in a week, but that would only make the teacher unhappy. You might not like to, or do not do well studying geometry, art, or Chinese, but "for your own good" you must study these (the way the teacher wants you to). No matter smart or stupid, hardworking, or lazy, scoring straight A's or E's, you have some kind of equality knowing that you will study at the same pace as your classmates.

Not only these, you also have to study these in the prescribe manner (for most of the time). Deviate from rote memorization of the notes, procedures or steps at your own risk.

The meta-lesson: You, the student, does not matter.

System-determined Syllabus

We see everyone with the same textbooks, opening them up to the same page, and learning the same sections.

You might have gifts in repairing computers, building automobiles, repairing electrical fixtures, or drawing Picasso art, but the school may veto that. If what you have lies in the syllabus, it will recognize you as a wonderful talent and send you for numerous competitions (provided you do not do poorly in any other subject or else it might force you to 'shape up' first).

If what you know lies outside the syllabus, then too bad, because the teachers will consider what you know as irrelevant and distractive (especially if you do not do well in the 'relevant' subjects). All your marks, approval from teachers and peers and your future lies in the 'syllabuses'.

Study these and progress higher until you get good certification and a warm cozy job, or flunk these and have yourself sinking lower and lower until the system virtually writes you off as un-teachable and hopeless, no matter how much talent you have. Even when you can go to a course that you wish to enter, because of your talent or your interests, you can only proceed if you have well enough grades not just to enter but also to fend off the 'competition'.

If you had not done well enough, you can only sit and stare at the wonderful posters and pamphlets while your less talented peers breeze easily into a course that they will probably not feel bothered about.

The meta-lesson: You, the student, does not matter.

We see futures laid out for the student, in terms of streams and class numbers. The system has intricate plans on how to manage students efficiently, assigning each his or her position and status in the artificial society that we call school. The entire system spans a large area within the bureaucracy of the government.

We have people planning and forecasting the future requirement of human resources needed in our society and instructing the system to produce the approximate number of lawyers, engineers, and any occupations society will need. The system works cog-like and mechanical, disregarding human emotion and initiative. Those who run the system hold this up as its strength, that the system stops human irrationality from wrecking havoc on itself.

Like the classes in our society, our school has its own classes for the students. Those who apparently do well will receive promotions into the next class, and sometimes into the next stream. Those who do badly will receive retentions, or perhaps drop into a "lower" stream. The best class of each stream always has a chance to join competitions, though the teachers might conveniently 'forget' to inform the other ('inferior') classes about it. The worse class might have teachers who want them to shape up, or treat them more like prisoners needing discipline than students needing learning.

Everything occurs as a wonderful orchestra by the system, according to the system, with the system. It dishes out all the tunes you need to play, and you just play along with it. Play in tune and the system rewards you. Play out of tune and the system punishes you. Few ever wonder about learning to compose music when you have all the scores of the system and your predecessors arrayed neatly in front of you.

The meta-lesson: You, the student, does not matter.

We see stacks of homework and items to do. The end of school packed with catch-up lessons and CCAs, vacations packed with tutorial lessons and stacks of homework all comes to mind. Mildly putting it, the students feel stressed out.

The system must do everything to help the students do well in the system and satisfy every conceivable demand that sounds politically favorable. You must keep fit, you must do at least 6 hours of community work, you must have national education, you must have a lesson in creativity and entrepreneurship, you must learn this, and you must know that.

At the end of the day, the system had forgotten to ask one group of people what they think: the students. Perhaps it seems useless since the students do not fill in survey forms properly. Perhaps so, but perhaps they just feel that the system would not respond to them, so they do not even bother.

The meta-lesson: You, the student, does not matter.

Conclusion

We see the school in control of everything that matters. Your schedule, teacher, syllabus, and the school rules all come from the abstract entity called "administration".

Perhaps some of you students choose to go to school. However, how many of us have a choice that, or even have enough awareness to ask. Even without compulsory education, unless you happen to have a rare delinquent parent who somehow refuses to send you to school, it seems inevitable that you go. All your friends go, all the kids you know go, and almost everyone in Singapore had gone to school.

Now, with compulsory student, the small kids have to go to school, for their own good of course. How dare the delinquent parents deprive their kids of the wonderful gift of schooling? Schools make you useful to society. Your individual intellectual development has little relevance, or only secondary importance, to your serving the society's "common good".

The Implications

Does it sound surprising that so many students have so apathy to the important issues of our society, those issues that would leave deep, irreversible impact on them? Why do students lack initiative? Why do students always demand that the teachers spoon-feed them with information? Why do the students seem weak in critical thinking and creativity? After what school has taught the students by its actions, do all these seem surprising?

The Government might implement this and that policy to foster thinking skills and participation, but as long as schools continue to hold the system above the individual and apparent form over substance, then schools will continue to show the same failings as they had done today.

As long as schools hold the monopoly on education, no matter in actuality or the minds of the decision-makers (usually parents), then our society will have serious problems (of apathy, dependency on the government, materialism etc) caused by this mindset.

Much as a farmer does not magically harvest a crop without all the work involving in preparing the field, planting the seeds, and tending the crops, one does not magically solve the problem with a “magic bullet” that can

Skeptics of the Skeptics

Some might ask, “Does it really matter”? Schools around the world, not just in Singapore, teach students in this way for about a century already. Few of the students ever complain, and you the reader, most likely an ex-student, will probably feel the same.

Surely, some of the people who never went to school but still manage to contribute to society, consist of the oddball minority. Surely if you do not have schools they way they operate today, then we will have social chaos as people go around committing crime because they do not study and cannot get a job because they know next to nothing. Surely, if you do not have such schools everyone would grow up as ignorant, potato munching fat people hypothesized by television soap operas who do not even know how to count, much less contribute to society.

Surely, Singapore cannot choose not defy the mainstream worldwide thinking on education, and my ‘American ideals’ will never work here. (However, I do not necessarily like American schools or subscribe to their thinking.) Surely, an ignorant, irrational twit without any PhD like me who dares to defy the education experts with PhDs cannot say anything of usefulness. Surely, a minority of one like me cannot ask the entire society to change for the sake of my ideals.

No, I do not intend to change society against the wishes of other people. I do not decide on the policies of the society. If you want to talk about such issues, go and talk to your Members of Parliament or the Speaker’s Corner. More like a rather disinterested observer, I merely list my observations here. Whether the government wants to listen or not, or ask me to help or keep quiet, I leave it to them to decide. I do not intend, or have the ability, to appoint myself in charge of policies like this.

I do not claim what I speak as the only truth. If you bother to read this article and the references in the appendix, you will decide if you find it of importance. Otherwise, you would not take consider what I say seriously anyway.

If you think that reading a lengthy article like this strains your eyes, then forget it. If you really feel interested in understanding the issues of education, I know you will continue reading.

The factory canteen analogy

The school in the system conveys some kind of an image of a very efficiently running factory. It constantly provides some kind of factory that makes standardized processed knowledge for students, whom it expects to consume and conform.

It has many large canteens (called classrooms) with standard sized tight fitting chairs (schools) that the students must squeeze into to sit down and eat. If they do not fit the system, it moves them into a lower and lower level canteen such that they tend not to climb up again (such as via streaming).

After the students sit down, it serves the continuous doses of processed food designed for students of that canteen level. The students have only the preprocessed food, which it claims to target for the tastes of “average” students at that level.

Most often, it looks bland and hardly seems nutritious like white cooked rice, devoid of any flavors or colors. When one takes a bite, it usually provides tastes ranging from almost having no taste to something bitter tasting.

Despite the apparent standardization of the food in the system, different canteens have different chefs and ingredients used for different levels. With skill, some chefs can add a bit of sugar and turn the plain rice into something delicious like rice cakes. Those in higher canteens also get the privileges of enjoying other ingredients like meat and fruits, while the lower canteens will just have to do with diluted plain rice gruel.

Unfortunately, the system dislikes any students who bring other food in unless with its permission. Through its chefs, it frowns on such some attempts and considers such non-standard food as wasting of the student's stomach capacity. It will only support and encourage its own products made using standardized procedures from standardized ingredients.

The power of the system extends to the home, where students have to practice making the processed food in their home or to consume the portions the chefs assign. To top all these, they also use the time at home to prepare for food tests and exams too.

In such tests and exams, they have to prepare the same gruel that they had eaten. Except in certain tests that allow so, any addition of more ingredients would have no effect and might even provoke the judge into marking down the student for adding "out of context" ingredients.

The same food produced must match the taste and consistency of the food they eat in class. Rather than cooking the food from raw ingredients, most students find a simpler technique of gouging concentrated processed food over a short period just before the tests or examinations. By gouging so much food, they effectively overload the stomach and prevent it from digesting the food. They then vomit these out during exams into bowls. With a little cooking, the food tastes just like the original.

This does not come with its disadvantages. Excessive gouging damages the stomach and impairs its abilities to absorb other nutrients. Over time, the stomach adapts to such behavior and refuses to process any other food. This leads to severe malnourishment and a hint of anorexia nervosa.

What happens to the students

Many of the students learnt that opposing the system would only prove futile. They never develop their thinking skills, seeking only to partition their time between "enjoyment of life", doing school related work and preparing for tests and exams. They would only study things related to the tests. If they think about important issues, they do so more because of how it would benefit them academically and not because of the love of thinking.

This kind of mindset results in apathy, low intellectual maturity, poor general knowledge and many unhappy people disillusioned with the system. This does not mean they have intrinsic low intelligence, but that they do not care. They simply have too much dependency on their teachers and school to want to think by themselves. Despite this, some people blame the students for their apathy and lack of initiative.

Because of the mechanical way the system treats them, many who grew up with the system only think of the system as a tool and many would not hesitate to break their bonds or do other "morally challenged" actions because they think of the system as merely a tool they can use to climb higher in society. People feel that they do not have a meaning and motivation in life anymore. Surrounded by luxuries, they thought they could sit back and enjoy life. After all, they deserve a break from all those terrible studying and exams that sap their energy and time, or their terrible day at work.

Never giving a thought to the meaning of life, or what they can do to make their life meaningful, these people usually pass their lives serving others rather than their purpose in life. Because they do not have such a mission, they fear change (which always happens), as it would make their life uncertain. They try in vain to stick with what they know, to extract the little comfort of a straw of certainty while they sink in the ocean of change.

What happened to the courageous, brave and resourceful pioneers who arrived in Singapore and made Singapore the wonderful country of today? What happened to the drive and energy among the people?

What happened to the willingness to take risks and experiments? What happened to the virtues of empathy, integrity, honesty, and frugality? What happened to our sense of selflessness, our compassion to those more needy, or even our dreams and aspirations?

Probably, schooling, together with an affluence life, had engineered them out.

The problems do not confine themselves to this tiny red dot called Singapore, but also around the world. What kind of country do we want to live tomorrow? What kind of world do we wish to inhabit the next decade? Very importantly, what kind of life do we want to live tomorrow?

I feel sad for those who fail to consider these questions, cannot answer them or refuse to even consider them. The ancient Greeks used the term "idiot" in describing such people who showed no interest in public affairs. It does not seem too harsh a term when such behavior can make or break a nation.

Why do I write this?

Worried about the Future of Singapore

Education consists of one of the most important influences of one's future and character. To have an inferior education system one pretends to work very well would only deceive everyone and spoil the long-term future of Singapore.

When materialism abounds in our society, when people feel insecure about the future prospects for themselves, when students do not like studying, we find many of these beginning with the education they receive. If we change this education system in the correct way, we can also solve many of these problems by targeting its source.

I worry about the future of Singapore and I hope we can begin to reverse some of the negative trends developing in this nation.

Helping those on the same boat as myself

When we buy shoes, those in the right mind rarely try to squeeze all feet into shoes of only a few sizes, especially when we have to walk in these all day long. Should we receive shoes that fit us instead of trying to fit into sizes that only the system recognizes? Yet, the education system tends to do so to its customers by putting the system ahead of their uniqueness.

The education system affects the lives of many of our youth and its residues persist long after the experience has ended. I prefer studying in an environment that recognizes my skills and talents rather than try to steamroller me into its molds. I think most parents would want that for their children too, and the more mature students would prefer it this way too.

Because we want to help others in the same difficulties as us, at least to know that an alternative exists even if we do not (intend to or manage to) change the system.

Reduce wastage through increasing quality

An inefficiently functioning education system wastes taxpayer money. We can spend billions on the education system and it feels like a good investment because we invest in the talents of our own people. However, an inefficient system merely swallows up these investments just as a sinkhole swallows up water.

One can spend tens of thousands of dollars on training a computer inclined person into an average carpenter, or just a few thousand dollars to develop his full potential into a computer expert. Students also have to sit through lessons teaching material they have already learnt or irrelevant material. They have to fulfill attendance criteria even though some of them can certainly and easily do without going to school. Certainly, these seem like a great waste of resources.

We could have spent the money in a more productive way rather than debating about the absolute amount of money spent on the system. Throwing millions of dollars at an inefficient system merely consumes the money while providing only marginal returns.

We should discuss more about how schools conduct their lessons rather than about the facilities, renovations or even how much we spend on retaining good teachers. Instead of merely talking about reducing assessments due to overly stressed students, we should discuss how we could provide a customized learning experience for each student.

I hope to encourage a mindset more focused on the inner workings rather than the outer appearances of the system.

The lack of an inside-view

I feel appalled that many of our public discussions about education occur without one group of very important people – the students. Have we ever heard about a company that asks everyone for feedback about the quality of its service **except** for its own customers?

Students rarely write about the education system and even more rarely speak about the problems they face in it. Those who made public appearances only speak in vague terms in conformance to official statements about their “positive experiences” and how much they had “learnt from the experience”. Yet, in private company and amongst themselves, they often deride many of the policies of the system.

The silent students contrast with the loud group of educators, parents, forum page contributors, reporters, members from opposition parties and members of the ruling party. Most debate focus on more superficial issues such Primary 4 streaming, class size and the tudung issue.

This seems to leave out the essential and systems-wide issues such as the purpose of education, the quality of the current education, the accuracy and scope of disclosure of the functioning of the system to the public and the results of the system. This gives one a feeling that those who know would not say, and those who say do not know.

On the surface, it appears that many visits (including unannounced ones) from the high level bureaucrats provide sufficient interaction with the people. After all, they can talk and even physically interact with the students. They can see the structure of the school and the physical conditions. They might even join the class and feel the atmosphere of the teaching. It seems very adequate.

Unfortunately, they only stay there for a short while. They do not study in the system, and they often have a group of people guiding them who will not only psychologically discourage anyone who wants to speak to them (by the implicit combined power of their authority) but also physically (due to sheer numbers).

Psychologists will also know that the presence of the observer often changes the behavior of the people studied in unexpected ways. When they conduct the experiments, they often have to hide their true intentions and disguise their presence to get accurate results. Relying such visits, the bureaucrats definitely will find it impossible to get an accurate assessment of the conditions in the education system, especially when their superior position makes people feel that they must do the best to make everything run perfectly. Rather than such obvious visits, perhaps they can assign certain students the task of reporting anonymously about the system.

I hope this will encourage more of those with recent and current experience in the education system to speak up about it. I also hope that the actual student's view, unaltered by external influences, will take precedence over the conventional artificial assessment methods.

Follow-up on my earlier writings

About 3 years ago, I had written an article arguing against the implementation of compulsory education.
[http://groups.yahoo.com/group/Personal_Discourses/message/72]

While the compulsory education policy has provisions for home schooling and would probably has advantages that outweigh disadvantages in its current form, I still feel very concerned about the quality of education it provides, and the lack of public discourse on the essential issues of the education system.

Compulsory education or not, very few students will recognize the other alternatives to the Singapore education system and even fewer will dare to choose it by going against the norms. How many can say 'no' to their parents who perceive home schooling as 'dropping out' of school? How many would give up friends they know and do with almost no support when they study by themselves?

Therefore, they remain stuck with the old system. I feel that a revision of the education system towards true learning together with the provision of more alternatives to the current system would help benefit Singapore in time to come.

I would like to follow-up with some of my newer thinking, experiences and also taking into account more recent developments. It would help a lot if someone at the top would listen, bit otherwise; I take this as a warm-up to my other more difficult writing projects.

An expression of my personal unhappiness

As someone who had went through the system and received highly unsatisfactorily treatment from it, I have my own personal unhappiness and grievances against it. I feel unhappy about the system for many reasons, including my many bad experiences in it. However, I feel even unhappier when the system would not admit its own flaws.

The system would put itself ahead of those it serves, and yet denies it. The system does not work the way it should, and yet pretends to work. When I have ignorance and did not know how to make do with my life, rather than attempt to help me grow it

tried to stunt my growth, and yet pretends to benefit me. Because it tries to fit me into shoes I cannot fit and torments me with guilt, fear and indecision when I tried to opt-out.

I did have some blame here, perhaps as much blame as a child who should know better than to play with fire when ignorant of its dangers, or the frog who lived in the well all its life and thought that the sky only has the same size as the mouth of the well.

Until I summon the strength and courage to climb out of the well, the system makes life difficult for me (and many others) in a way that seems impossible for me to choose otherwise. Because we do not question this, I indeed have some blame.

I write this as a way to express my unhappiness, and to ask others to consider this approach rather than choosing to rebel or comply blindly. Both approaches will only deal one with severe disadvantages. Better to learn about the system and how to change it first, then to act without thinking.

Defining True Learning

How would we define true learning? Most of us would probably agree that:

- 1) Learning occurs in our whole life

One will always constantly learn about new knowledge and experiences. Learning does not stop at school. It has many beginnings but no end, as one can always aspire to acquire more knowledge and skills.

- 2) Learning has subject matter content, but the subject matter does not constitute the ends of learning

We still find content relevant, but it merely provides a medium for learning to take place. Much knowledge taught in school will go obsolete quickly, if they had not already gone obsolete. Teaching by content will hardly help students to cope with the developments.

- 3) Learning requires self-motivation

Learning takes place best in a situation when the student feels internally motivated to learn. The desire to complete a self-motivating project or the love of learning for a certain subject can work wonders.

It puts an end to irrelevant and counter-productive thinking in terms of doing the minimum necessary (e.g. teaching and learning to the test) and getting social approval from others.

- 4) Learning requires aggressive self-direction

The learner has to direct his or her learning actively, customizing it based on previous learnt material and interests.

Treating learning like a passive process where one can simply “download” data from the textbook and “install” it into the brain will only provide a sub-standard result. At worst, one will forget about the material in question after the exams. At best, one will fail to integrate the material with our knowledge and thus use it only for very restricted domains.

- 5) Learning happens via interaction

Learning takes place through conversation with others, with books, learning materials and the self. It requires self-examination via assimilating, adjusting and integrating these thinking.

- 6) Learning involves constructing meaning

Knowledge exists only when information takes on meaning. The learner must actively construct self-generated answers to relevant questions.

- 7) Learn to apply

Knowledge has no use if one keeps it unused in the attic of the mind. We should learn to apply knowledge and not learn it for social approval. We should bear in mind that someday, somehow, we might need to use it.

- 8) Learning changes the self

What we learn changes ourselves fundamentally. We would only know it fundamentally when it touches, changes and merges with ourselves.

- 9) With knowledge comes responsibility

Acquiring knowledge has its accompanying responsibilities. One should understand the implications of the abuse of knowledge and abide to these responsibilities. Learning without responsibility might make one a great genius, but with poorly developed morality.

The biologist might use his knowledge to kill, the physicist might only use it to conduct unethical experiments and the computer expert to conduct acts of malicious computer destruction. Training evil geniuses hardly helps our society.

Learning in the education system

The education system has written quite a lot in its own defense. However, actions speak louder than words. From my experiences in the system, it seems that the system has failed to offer a true learning experience.

1) Learning occurs only for tests and exams

When I express my desire to learn and explore outside subject materials, the teachers told me to concentrate and focus on the "important" subjects. This means that I should put all my effort into studying subjects related to my tests and exams. They promised me that I would have "all the time" I need once I finish my 'O' Levels. That promised time has never materialized. Fortunately, I did not heed their advice.

All the students I had encountered in my previous classes and nearby classes have no interest in learning beyond those they perceive useful for their tests and exams. Some rare forward-looking ones will look ahead at information they will need for jobs, but they will only target skills needed for more job interviews than to increase their competency at their jobs.

I had consistently found this pattern even into my Polytechnic experiences.

2) More often than not, the subject matter constitute the ends of learning

The teachers often teach according to textbooks. They expect students to memorize and regurgitate facts for tests and exams, even despite the fact that they often teach outdated information.

In my Polytechnic, an uncompromising teacher forced the class to buy a book on Excel 97 and taught that to us even though Excel 2000 has already arrived on the market for quite some time.

Even the apparent ability to do mathematics comes more with the memorization of the steps and common mistakes made in mathematical calculation and not the theory of mathematics. Few exceptions do exist, such as for creative writing.

In the field of Artificial Intelligence, one questions if the ability to arrive at the correct answer by mechanically following a set of rules constitutes true understanding. If the student merely memorizes heuristics and disconnected rules, and calls them into play when solving math questions, he or she cannot claim to have true understanding of the subject.

One would not find it easy to locate a student that understands the theory behind the abstract steps of calculus or the rules of physics while knowing how to apply these in real life situations. Yet, there does not exist opportunities to show such knowledge in tests and exams, as the testers merely want them to follow the textbook procedures and answers.

It makes one wonder what the education system wants to encourage.

3) Few teachers care about self-motivation

Most teachers only want the students to pass the test and continue with the system. A good number would like the students to score well, but they only feel concerned about the effort the students put in and not if they have any interest or liking in the subject or not.

For their part, the students like to pester the teacher for "tips" to score better in tests and exams. This seems like the only form of self-motivated 'learning'.

4) Learning often requires aggressive memorization

Very often, the learner has to memorize facts, knowledge and figures to pass the tests and exams. Teachers frown on the use of creative interpretations and paraphrasing, and insist on textbook answers.

This also applies even if the learner has expertise in a certain subject. One would have to disregard inaccurate or outdated information so that one can memorize them for the tests and exams.

This extends beyond secondary education. In some modules in my Polytechnic course, one must learn the “correct” terms for mundane or useless information to pass the test, even if one can easily demonstrate a working knowledge of the subject in question. The memorization list sometimes includes marketing hype.

5) Certain learning occurs via misguided interaction

No teacher in the system had ever told me to thoroughly immerse myself in the mindset of the knowledge I will learn. I have to learn this myself. New teaching approaches seem to focus on superficial learning tools like flashy computer animations, peculiar games and more rarely, certain memorization tools like mind mapping and mnemonics. These seem more for impressing people than for helping students learn.

Such thinking confuses the meaning of interaction and targets external interaction rather than true internal interaction. They never taught about quieting the mind and thinking deeply about the issues involved and seem more content to provide a lot of activities and teaching other superficial techniques optimized for memorization. I had not seen the Socratic method or other techniques for contemplation in action there.

[Example: http://www.garlikov.com/Soc_Meth.html]

In a misguided effort to promote “teamwork”, the education system forces me to worry more about my teammates than projects. The projects prove so much easier to do for myself. This practice severely hampers my ability to deliver a working project to my standards and contributes to a lot of wastage of my time.

I can only conclude that the system does not understand what it really means to learn.

6) Learning involves no meaning

Teachers rarely explain how the parts fit into the whole, and that task depends on the students and the textbook. Students often have to settle for memorizing fragmented and disconnected facts rather than understanding them.

One finds an extreme expression of this in classes that teach programming. The teacher merely provides some lectures on the basics of a programming language in a highly incomplete and incoherent fashion. They then assign students assignments on writing programs based on examples in the textbook, and maybe modifications to these assignments.

The students never learn the intrinsic structure of the code from the teacher. They never learn how to look up references for programming code and how to plan and design a moderately complex program. A few ones that are more gifted learn to do so by themselves. Does one ever wonder why programming most genius and hackers self-teach their computers skills?

When a student from another class asked me for help, he did not even know how to print a self-made piece of text to the screen or even about the basic concepts of debugging. After graduation, many of these textbook programmers then go to work with large programming textbooks. I had seen a few at work and the quality of their code. I can only wonder how much damage their incompetence will do to our economy.

7) Learn to regurgitate in tests

The teachers and students hardly care about application of concepts, except for certain projects in the syllabus. Since students tend to flunk such projects, the lecturers would kindly dumb down the requirements, give the students a second chance to redo or change the project to a more traditional “memorization” type.

I dislike doing most projects because they never gave me a chance to show my potential or skills. It tires me to do such mundane projects on top of the burden of “teamwork”.

8) Learning changes the grades, not the self

Students learn to score, not to understand. It treats someone with a higher grade as superior to another person with a lower grade, not taking into account true understanding and knowledge.

9) With knowledge comes tests

Teachers hardly mention responsibilities, except in special classes with names like Civics and Moral Education, Nation Education and Social & Community Values. Even more strangely, because the students “don’t take them seriously”, they also test students on these topics. Students also have to do at least 6 hours of “voluntary community service”.

It makes one wonder if the students really understood the issues affecting our society. When the class has debates or opportunities to express such knowledge, it seems that they fail to demonstrate an adequate understanding of the basic issues by expressing their concepts poorly and with little information or logic to back them up.

They fail to track the logical direction of their presentation. Instead, they often use a technique called “bombing” when they run out of things to say. It works by using obfuscating statements to express a simple, usually illogical concept and chaining as much of these together as possible to give an impression of knowledge.

When they do not even understand these basic issues, I wonder how they will understand the concept of that knowledge comes with responsibility.

An analysis of the mindset of the system

After going through the system for so long, I can see how the system works and think.

Mindset: We are the best

Singapore has topped international competitions for science and math. On many fronts, including infrastructure and opportunities for learning, Singapore can indisputably top the world. Because Singapore seems so superior in so many fronts, any criticism from this perspective would seem like an act of ingratitude or total ignorance.

Just think about the pathetic education you can get elsewhere, say in Third World countries, or brave the dangerous US schools where some students go on a killing spree. Singapore schools feel so nice and comfortable in comparison that it seems beyond reproach and criticism. They conclude: "We are the best, therefore we are always right in this."

The thinking that the system lies beyond reproach hinders further constructive improvement. Even the best must improve itself. Deluding itself by implying that it has achieved the best in its class and will always remain the best only provide opportunities for others to out compete it.

Performing excellently compared to other schools has little use when it cannot meet the minimum performance levels. For instance, topping a class where everyone failed the test hardly sounds positive. Singapore can have the best system by relative standards, but does it suffice by absolute standards? Do other education systems provide an adequate model for comparison?

Perhaps we should also consider if this thinking has relevance? An education system should focus on doing its job rather than how well it compares with others. If it does its job well, then it will naturally rise to or stay at the top of the list.

It also seems highly misleading for those competitions when each nation sends in its elite students without representing the other fractions. The method of assessment via standard testing may also fail to adequately test the complete scope of learning and true understanding.

Mindset: System Oriented

To the age-old question of "*quis custodiet ipsos custodiet*" (Who guards the guardians), the Singapore education system seems to have answered with a concept: "meritocracy".

When the system makes decisions for students merely based on grades, this speaks volumes on the mindset of those running the system. For example, it denies me entry to the computer courses despite my abilities in computers merely because someone has a slightly better grade than I did.

The people running the system call it meritocracy – one would receive rewards according to how well one does in the system. This means if one cannot work with the system, then this consists of one's own problem.

Frederick Taylor wrote, "In the past, Man has been first. In the future, System must be first". The system comes before its users, and those who live in our society would have to standardize their thinking so that we can all live peacefully in our "utopia".

Because it treats everyone the same, the system always seems to operate fairly. It does not yield to discrimination and personal relationships. It seems perfect and wonderful.

Thus, one never has to give the students an independent evaluation to determine if participating in the course would make the best use of their real skills and talents. One does not really care if the students have talents or not, or if they like to learn the subject or not, but merely that the system runs with clockwork precision.

Gödel's Theorem states that a fully consistent or complete system mutually excludes each other. Both attributes cannot exist at the same time. One wonders if the system really works just as well as it seems. A consistent system sounds nice, but it must fail to take into account the completeness aspect. No perfect system can exist, because any system itself inherently has imperfection.

Does this system take care of students who cannot fit into the system but can otherwise excel in learning? What about students with very different learning and socializing needs? How much can one neutralize the variability of subjectiveness imposed when setting test questions so that it will give any group of students neither an advantage nor a disadvantage?

Traditional verbal IQ tests had received criticisms in the US that since they used the vocabulary of higher-class light skinned people; they had discriminated against the dark skinned ones who used another different vocabulary. The effect of question setting variability does not seem obvious: Each student would have high familiarity with certain questions and low familiarity with other. One cannot avoid subjectivity just by making test questions identical.

The “meritocratic” system has serious flaws because of its system focus, not in spite of it. The system exists to serve the people, not the other way round. Those designing and running the system ought to remind themselves about this. We do not work like clogs in a machine or a number in an array. A human being has much more potential than that.

If one prefers to treat humans like that, then one receives what one puts in – lack of initiative, minimum creative thinking, excessive conformity to norms and authority, excessive dependence on others for decision-making and rigid thinking.

A system that values the participation of the student while recognizing and nourishing their decision-making abilities would go a long way towards making the system a better place for learning as well as better Singapore citizens.

Mindset: The Elders or High-ranking people know better

Many of the more senior people thought that the inexperienced young should not have a say in the system. The young should just keep quiet and accept the wisdom of the elders. Younger people questioning the system either have no brains or do not respect the decisions of the elders.

In traditional fashion, one would abdicate one's responsibilities to their superior because they deem the person more worthy of the responsibility by virtue of his experience and seniority. This has partly to do with the 'Asian' mindset that has a very different perspective of the world than the 'Western' one.

After all, who worked so hard to bring Singapore from a third world country into the first world? Who paid the price with all the sweat, blood and toil? Who had such invaluable experiences of the past that would prove very helpful (as the Chinese idiom "an elder at home is just like a treasure")? They had eaten more salt than the young had eaten rice (a Chinese idiom).

With all these in mind, we must respect those who had given so much to us, and show it by not questioning their policies. Any criticism from a student immediately appears as disdainful and without basis due to lack of experience.

Constrained by experience

The elders with their great stores of experience surely seem to know better. Unfortunately, they often have to struggle with an artifact of their knowledge: a tendency for rigid thinking.

People with little experience tend to err on thinking that the impossible can happen. Likewise, people with too much experience tend to make the reverse error. One sees lesser possibilities and tends to assume untested methods as unworkable, rather than experimenting with them.

When it comes to the time to make a decision, the more experienced tends to stick to safer, tested options. This often leads one to miss many opportunities to experiment with and implement better alternatives. Applied in a youth predominated education system, the different ways of thinking clashes with the conservative ones, with the latter winning. This does not bear well for a system that should serve the students.

The conflict of interest

One must also consider a factor that will affect the mindset of those more established: conflict of interest.

As one ages and settles into a career path, one starts to develop a risk-averse mindset. Worries that one would not easily find another job with similar conditions hangs dangerously like a sharp blade above one's head, ready to drop with the next retrenchment exercise. Having a family to feed adds even more burden to one's worries. Following the credit-card trend, some might also unwisely spend beyond their means, and now have to worry about repaying the debt.

One finds the situation of losing their job very unacceptable in this situation. Thus, one will have to do the utmost to avoid this. This means that they have to curb any initiatives and proposals that could put them into trouble, no matter perceived or real. Ideally, they would go by the rulebook and comply with everything inside, no matter how silly, ridiculous or inconvenient to both themselves and their customers.

Perhaps they might not care so much about their job but more on their prestige. They had done so much to come so far, and if they make a mistake now it would not bear well in the eyes of others and for their future career.

Nothing could change this way of thinking unless the people involved change their mindset or the system changes the way it operates. With such a conflict of interest, having such people run a system that wishes to serve mostly younger people would seem very unwise indeed.

Emotional Barriers

I had heard of at least one incident where someone has expressed displeasure in what I write in this fashion: "How can he write like that? If not for the educational system he will not be here today".

I could rebut with logical arguments, however they probably have little effectiveness because they usually provoke even more intense exchanges. Instead, I might ask people who respond this way to read this:

One day, a person goes to the fish market to buy fish. He sees two fishmongers who sell fish available next to each other who we will call 'A' and 'B'.

As he had no prior experience in buying fish, he chooses 'A' because the price looks cheaper and buys from it. After completing the transaction, the buyer returns home only to find the fish stale, which he consumes reluctantly. He returns the next day and demands a refund. 'A' gets furious and proclaims, "If not for me, you would not have eaten fish yesterday! How ungrateful of you to insult me"!

The buyer decides to buy from fishmonger 'B' instead, and he has ever since managed to buy good, fresh fish. Even though fishmonger 'B' sells fish at a higher price, the fish always tastes very delicious, especially when compared to the competition. If only he had known better, he would not have patronized fishmonger 'A'.

I might also tell another story:

A man lives in a village where everyone has to bang their heads three times in the morning, as hard as they can, as a traditional custom. Many cases of concussion resulted from this but the village chiefs claim that the injuries merely resulted from "inferior skulls" and that the public need not worry. Since everyone had banged their heads for as long as they can remember and few ever bother to question the chiefs, nobody complains about it.

One day, while diligently banging his head, the man had a revelation. "Head banging does nothing useful but only causes unnecessary pain and possible concussions. We should abolish it."

He decided to ask one of the chiefs about his observation. The wise elderly chief shot him a peculiar glance and said, "You see, if you had not banged your head you would not have known that banging heads is painful and you won't be here today. Thus, abolishing head banging is absurd. Head banging is a controversial subject that we should not question in public. Count your blessings young man, we don't need more dreamy idealism of your type."

Mindset: Only professionals can have the say

Many people in Singapore often value certification a lot, deferring to those with doctorates and other "awesome" certification. This has a lot to do with their different mindset and unfamiliarity with the principles of true learning.

The old mindset values those with certification, because apparently people study to receive certification. Therefore, those with certification must have studied more than those without. Because they had studied more, then they must have certain special and innate knowledge that comes with that studying and thus only they can solve big problems.

When someone as “unqualified” as a student speaks about the system, then the student naturally must have too much ignorance to question the professionals. “How dare such an ignorant twit who has yet to prove himself dare to challenge the giants who walk among us”, they fumed. Only the professionals’ words, with their powerful certificates, have validity.

The absurdness of mistrusting the customer

The school exists because of the student, and it directly affects the student. One determines the performance of a school based on the effects it has on the student. Therefore, one can consider the students, no matter how immature, as the customer of the school.

If they consider a student having lesser credibility than a professional educator, it actually implies that a customer who tried out a product in his or her real life has less say on how well it works than say, a product design engineer with a few doctorates under his or her belt.

The lack of recourse to problems

Imagine buying a lamp and discovering that it would not work. When you return to the shop, the shop owner refuses to believe you because he had the lamps certified by an expert that claims that the lamp uses a certain technology that will always work. However, you, not the expert, bought the lamp. Obviously, you should have a say in receiving something that satisfies your minimum requirement or opt-out and have your money back.

When you buy normal stuff like these, you can usually test to see if they function or not. If they spoil and the shop refuses to honor its warranty, then you can march down to the Consumer’s Association of Singapore and ask for their assistance. You might even go to a small-claims court to get your money back.

When you have an issue about education, you would neither find it easy to test nor easy to demand change or compensation for. You have no recourse built into the system, but to comply with the rules whatever they provide. Few students in the system notice the problems about the system and even fewer bother to speak up. This should change if we want to implement a better system that also involves the students.

Professional Imperfection

Professionals also have ignorance and make mistakes. Professionals do not acquire perfection by virtue of their certification. Professionals do not only make mistakes, but they also do not always agree with each other.

For instance, eminent expert scientists once did not believe in heavier than air travel, the feasibility of telephones and even that the possibility of breaking the sound barrier. In time to come, technological developments had proved them wrong.

When experts can disagree about apparently simple things we take for granted today, people should learn to have the self-confidence to hold their own opinion than to defer to the perceived experts.

Certification inadequateness

I question the usefulness of certification in the situation of such inefficient learning that I had experienced. The ability to excel academically with rote learning does not pass my own devised standards, which unfortunately seems more stringent than the educational system’s.

In my personal opinion, the standard of certification must increase to at least twice the stringency and the assessment systems heavily modified to test real skills, such as the ability to think critically, before I consider it minimally adequate. Under my standards, probably 95% of the newly graduated students who had no job experience could not meet it.

One can receive a certificate but still do poorly in the tasks they ought to know. As a precaution, employers should test for real skills before certification. Relying on certification proves ineffective (in ensuring the minimum required expertise) and wasteful (by excluding other equally good or better) when choosing to hire job candidates.

Mindset: Scarcity and Elitism

Certain people in the system think of life as this way: You live in a food chain with the number one predators at the top standing above the great mass of sub-predator and sub-sub predators until you get to the ‘scum’ of the food chain – the failures and completely incompetent.

This sounds just like the society in Aldous Huxley's "Brave New World". Unfortunately, Huxley did not know about computer technology, automation and the Internet, all of which can make such a society obsolete.

When one holds the mindset of scarcity, it sounds all right to promote the idea of elitism. Only those from the best class count, and only they can represent the school in competitions. The second or third best class would have no such chance if the teachers conveniently forgot to tell them about it even if the school cannot field enough candidates.

Students in the system think that life can only offer so much and they must grab their own piece first before others do so. They must top the class, get the most CCA points, or score at the top of their cohort.

When one applies for places in the courses they like, the competition starts again. One must score high enough to 'defeat' the other candidates. Only a few hundred can get into this course. In the institute, only one person can top the cohort. Only a few selected people have the honor to top the class, their module or to gain the elusive distinction.

When they grow up, they will once again compete to receive some prestigious scholarships, and maybe break the bond after they acquire the honor of receiving it. People will look at them and find their having received a scholarship as impressive. Nothing wrong with taking the scholarship, they reason, because if they refrain from doing so, someone else will take it anyway. They only want the good part of the scholarship (e.g. the honor bestowed on them), not the bad parts (e.g. obligations).

One must keep climbing higher and higher. One cannot stop or rest lest other people catch up with one. Only the top of the Mount Everest of success counts, and everyone races towards it.

In the blind craze of the competition, few even question why they should participate in the competition, and if they can consider things from another perspective. They hardly wonder if they can change things, but only worry about what lies just ahead of them. "The future can take care of itself", they mutter as they race through another round of competition.

The concept of scarcity had permeated our society very thoroughly. Efforts to commercialize everything from DNA segments, the concept of a one-stop shopping cart and the rise of e-books had shown how this has even targeted information.

Perhaps we should recall that information has the nature of abundance and tendency for reproduction built in. The Buddhist has the custom of using lighting candles to symbolize the passing of knowledge from one person to another without depriving the giver of anything.

Yet many of us choose to think otherwise. "(Knowing privileged) information is power" goes the adage we know. An oxymoronic concept, "intellectual property", despite going against the grain of the free nature of information, has gained in influence and popularity as a new industry. Scarcity has intertwined itself more tightly when our advanced technologies could potentially provide more than enough food, water, energy and other essential items for everyone in the world if we all work together to develop them.

We have to recall the nature of duality: one does not always have to think of the world in the materialistic terms of a zero-sum game. Every cloud has a silver lining. We do not always have to think in terms of the "food chain" model. We can choose differently.

One should not always have to compare oneself with others. Do we choose to live for others, or do we live for our purpose in life? Must we always need to think in terms of such a limited worldview, or can we spread our wings and assert our own innate individuality?

Likewise, the system should reconsider its mindset in this aspect. Its policies and its emphasis on scarcity based grades show the highly ingrained foothold of this mindset.

Actions speak louder than words, and when words and actions disagree, we instinctively choose to read from actions. Teaching the younger generation about this mindset by action seems to go against the Desired Outcomes.

Mindset: Syndrome-oriented

The system targets the outward syndromes of the education system, and how to look good to others. When the weeds of trouble attempt to grow, the farmer would just have to chop them off above the ground. The roots remain undisturbed, ready to sprout more offspring.

For instance, in reaction to growing apathy and materialism, the planners made a few superficial changes to the system. For example, students have to do 6 hours of compulsory community service. They also instituted lessons that seem to target these areas. Thirdly, they make these subjects exam-able so that students will take them “seriously”.

The contents of these lessons only sound like superficial propaganda. It does not foster the deep understanding necessary for the students to understand these concepts. It hardly makes a dent in the belief systems of the students as they dismiss it as yet another useless thing they must do to remain on good terms with the system.

Of course, the planners would never hear their real thoughts. When the survey form comes by, they will just tick ‘average’ or ‘very good’ all the way. They would leave the comments section empty.

If they ever had the rare chance to go for an interview by the media or meet with someone higher up, they would put on their nice PR face and say nice vague praise for the system. No one but they themselves would know, and then when they leave school they will forget about it, dismissing it as a expected, normal and unspoken part of life in this society.

In the short run, one finds it far easier to relieve the syndromes rather than take the effort to correct the problems at the root. As social systems have high complexity and have to deal with politics and human irrationality, the difficulties increase exponentially.

The education system constitutes one such system. It has to please many people with many different demands. Some people in positions of power might want to implement certain policies but find it politically dangerous to do so. It has to give the appearance of doing its job well, no matter if that has validity in reality or not.

Thus, the people working in it tends to operate in reactive mode. They see a problem and then apply a quick patch over it that seems to work. They do this a number of times. After many such modifications, the system looks like some Egyptian mummy with dangling bandages than the natural looking state it originally had. The bloat starts to put a constant, heavy strain on the system.

This results in many policies and initiatives that look good but do not work. Gradually, the system planners lose the trust of those within the system. Every new initiative looks like another fad from “up-there”, every new change looks like it merely wants to make the advertisement brochure look better, every promise looks like an empty advertisement from a politician that will not deliver.

The people in the system then engage in denial over problems or dismissing them as unimportant or irrelevant. They might feel a vague dislike of the system, as it no longer provides them with any intrinsic satisfaction. They just want to finish their job (or studies) and get away from the workplace (or school) so that they can spend time on more fulfilling things like their hobbies, religions, or families.

As a result, the problems keep popping up in other places that require increasing amounts of patching. Eventually it loses its edge and causes a cascade of problems to occur, perhaps in another system (as these systems have interdependency with each other). By then, one finds it too late to change the system to correct them because one would have dealt serious damage to the self-esteem and intellect of many students.

Mindset: Kiasu-ism

Note: For readers not in the know, kiasu refers to a Singlish term literally meaning “afraid to lose”.

Nothing just seems good enough. Students must have a ‘well-rounded’ education. On top of scoring high grades, they must keep their bodies physically fit, know about national issues, participate actively in the community, and know about the subjects

ranging from science to literature and the law. They also must appreciate the arts. They must learn about creativity and entrepreneurship.

This has parallels with materialism, where one should attempt to gorge with oneself with everything under the sun. Therefore, the system will have to do its best to cater to all these, cutting out previously essential coursework and squeezing short introduction versions of subjects of every stripe and color into the course.

The attempt to grab everything will only cause one to end up with nothing. Like the proverbial greedy monkey that grabs more peanuts in the jar than it can take, this would only lead to a watering down of our standard of education and the resulting quality of our graduates.

The Illusion of the Absolutely Good

Certain people will defend these additions. They claim that these subjects have great importance and the students should learn them. Unfortunately, they forget to consider the relative importance of these subjects and their priorities.

Even learning about the eating habits of *Ctenocephalides canis* (a type of flea) can prove useful, until you consider that perhaps concentrating on the meteorology aspects of your meteorology course would prove more useful in your professional work. Knowing quality management can prove very useful later on. However, if you want to focus on learning programming and prefer to spend the time yourself in the way you best feel you should, this sounds like unnecessary interference. In addition, the supplied quality management material, usually oversimplified to the point of superficiality and incoherence, hardly helps at all.

We have to focus on our priorities, and differentiate between the good and the best. If not, one will, like the proverbial jack-of-all-trades, know only a little about everything and nothing much about anything.

Moving away from core competency

When you order food in a restaurant, you want strictly the food that you ask for. You would not feel pleased if the restaurant reduced the size of your pizza by half so that they can supply you with “value-added” toppings, extra helpings of “essential” coke and some “nice to try” garlic bread ostensibly to ensure that you have a “well-rounded” diet.

To make things worse, the planners seemed to have added the subjects in a haphazard manner. They occur with quite some duplication while having little integration. This means that rather than having a neatly arrayed bento box with servings that complement each other; it looks like a patchwork of quilt and weird clothing patched together with stick tape.

Something has gone wrong when the restaurant’s wishes override its customers’ orders. Unfortunately, when all the competing restaurants follow this policy, customers have little choice except to prepare the food by themselves.

We must refocus on the core competencies of our courses and the development of specialized talent. One should have the option of studying different courses in depth without having to study many courses very shallowly with little integration, as well as the ability to choose what courses to learn.

Mindset: The less disclosure the better

One often finds it a mystery how schools come to arrive at certain decisions and how they conduct their affairs. Despite serving students, they do not seem to involve them in their decision-making processes and seem to operate under a shroud of secrecy.

I still remember an incident in my secondary school days when I picked up a piece of curious looking paper in the recycle bin. It contains minutes of the school meeting and I read it with curiosity, since I never heard anything about school meetings. Later, I foolhardy asked a teacher to explain more about the paper. He immediately confiscated it and told me never to do it again. A week or so later, another teacher saw me look at the recycle bin while I passed near it and asked me to leave it alone.

Perhaps they want to avoid trouble. Keeping everything quiet, they reason, would prevent any criticism that would cause trouble. It would make their job easier since they do not have to make the effort to publicize material. It does not violate any laws or regulation. The parents and students never complained about this.

Therefore, nothing seems wrong with it at all, especially from the bureaucrats’ point of view.

Certain secondary schools also have the policy of requiring students to join certain courses, such as computer courses, self-improvement, and tutoring lessons. They do so ostensibly to make the students better. They also often subsidize the courses.

It sounds very good because the school provides a service to the students. It “adds value” to their school experience and allows the students to learn essential skills. Even more so, the school helps to pay a part of it too.

Unfortunately, the schools often take certain policies that affect those it serves. For instance, it usually will not allow students to opt out of such courses. Thus, a computer expert student would have to endure a series of boring basic computer lessons while having to pay (usually via Edusave) for it. One also does not have any information about how the school decides on a certain company to supply the service.

From what I had heard, teachers also have to attend compulsory training courses. It seems that educational institutes have a certain reserved portion of the budget meant for promoting certain initiatives in the system, and perhaps they did not know how to allocate these well.

Perhaps open disclosure will clear up any misconceptions of the public about the school and provide accountability on the inner workings of the system. It would help to secure more trust from the public. Attempting to prevent disclosure might imply that the system has something to hide.

Otherwise, students should have a choice in opting out of some of these additional courses that the school provides and not have the school make such decisions for them.

Mindset: Grade Inflation Little Concern

Although not officially sanctioned, many course instructors in my Polytechnic have to dumb down the quality of the coursework or depreciate the value of true abilities for a few reasons, including:

1. The excessive increase of the additional courses

As mentioned above, the extra courses force out the important areas from the syllabus. Lecturers just cannot find enough time to complete all the courses in the lesser amount of time they have. Even if they could do so, the deluge of projects that all seem to require submission in the same week, would put a stop to their wild ambitions of covering half the textbook.

2. The inability of students to cope with the syllabus

Certain staff in the system had discovered a good way to help students pass: they made the course simpler or exercise leniency in the marking. This masks any deterioration of the quality of the products of the education system and ensures that the system will not exhibit an “excessive” failure rate.

For instance, the lecturer might want to cover the entire textbook for database programming but finds that many students cannot do programming. To correct this, he could change the syllabus to one that emphasizes memorizing database terms while teaching the minimum of the most basic aspects of programming.

The law lecturer, upon finding that the students could not handle the mammoth task of learning about how common law works, decides to omit half the textbook and teach more by quoting and memorizing case laws according to the textbook rather than test the abilities of the students by interpreting cases that the textbook did not teach.

This reminds me of an incident in my secondary school where the library made it compulsory to have each student borrow 5 books per semester so that it can show the high usage rates that justify the investment in the library.

Contrary to public perception, bureaucrats do have ingenuity and creativity when they want to stay in their jobs. They can comply to the letter with the rules, but completely break the spirit in order to comply with new initiatives and demands from both below and above them. The student does not care; the lecturers heave a sigh of relief, and the reports look good to the administration. It all seems like a pleasant state of affairs indeed.

We must also resist the temptation to lower standards to cover up the increasingly serious quality problem in our education system. The addition of many subjects can serve as an excuse to exclude “difficult” course material while adding in the relatively simpler introduction stage material.

The mess of subjects hardly helps students integrate the concepts at the fundamental levels. An exercise in integration should occur with the adaptation of course material and its integration via hyper-linking and references. Even a combined course outline with the subjects indicated will help quite a bit.

Mindset: Confusing school and work

School and the workplace have very different goals and systems. While school must prepare students for the workplace, it should concentrate more on developing their skills rather than with superficial attempts to emulate the workplace.

The new policy of group project work

The mindset sounds good: Force the students to learn teamwork so that they can develop in a well-rounded manner and cope with corporate hell when they enter the workplace.

In many cases, the teacher would just throw the students in and see if they can swim. He or she could just ignore if two people have very incompatible characters or personal histories and force them to work together.

Even when the students can choose, there always exists the possibility that one will fail to locate compatible partners in class and would find it much easier to do the work individually. That has occurred to me with most of my project work.

Group project work tends to equalize the effort put forth and dilutes the effects of the abilities of the individual team member. Once, one could show that he or she had learnt the subject well by preparing an awesome project, but now one would have a few freeloaders sharing the credit. It seems highly unfair for such behavior to occur. Forcing a group project when an individual project could suffice turns the assignment into a situation where one has to handle the burden of socializing on top of project work.

Certain project members have to compromise a lot, including having to do the project at an inconvenient time or location, and having to do a lower quality project (such as when the group decides to slack off to complete a project with inferior quality). They could have avoided this, if not for the requirement that they have to do the project in a group.

This occurs despite a different policy in the workplace. At work, individual performance can hold one accountable in projects. The company can fire team members who do not take their projects seriously. While company policy varies greatly, more enlightened companies will generally allow some freedom to choose competent team members whose skills and character complements each other, than to force a group of incompatible people to work together.

After all, a team with poorly chosen members will have lower productivity. How can a company with sensible HR policies and desiring to reduce costs afford to lose productivity just because it just would not care about the feelings of the employees? When a company spends millions of dollars in consultant fees to graphologists, feng shui masters and motivational trainers, one can hardly consider spending some time to assemble teams that work well together too extravagant a consideration.

Rising Early to Work

People go to work early in the morning. School aims to prepare students for work. Therefore, it seems natural that students should go to school early to get a taste of working life. Strangely, school tends to start at 7:30 a.m. (8 a.m. for the Polytechnics), earlier than the 9 a.m. working time for certain jobs.

The system seems to think that one can ignore the effects of rigidly sticking to this policy, including sleep-deprived students with greatly diminished abilities to absorb information. The sleepyheads only have themselves to blame for not sleeping early.

Scheduling work and school at about the same time causes massive traffic jams. However, one does not need to bother about anything more than overcrowded trains and buses as the Government foots the bill for constructing more and more roads and expressways to handle peak traffic.

Having work and play time together helps to make the ease of administration easier, and allows people to interact more with each other.

Unfortunately, one cannot ignore the effects of rigidly sticking to “office hours”. It also causes under-utilization of facilities (where facilities can only function for a portion of a day), incompatible activities (such as having to go to the bank when at work), and the cost of extreme fluctuations in demand and supply.

While the Government pays for expanding the road infrastructure, the money comes from the taxpayers. The taxpayers indirectly pay for the foolishness of their selfish ignorance.

It makes little sense to endure massive traffic jams just so that everyone can get to work at about the same time. Public transport providers also have to crank up their services to handle peak demand, incurring extra costs that they have to pass on to their customers.

Sleep-deprived students have greatly diminished abilities to absorb information. They also tend to feel emotionally negative and have difficulty in focusing on the lesson as well as using creative and logical thinking. This hardly seems conducive for studying.

Our body has an internal clock that helps regulate our bodily functioning. This “body clock” generates a circadian cycle. For younger people, it tends to make them “night owls”. Forcing them to conform the sleep wake cycle of the “early larks” contradicts their body’s messages. They find it easy to stay late into the night and then wake up tired the next day.

In another case of “the system before those it serves”, the system ignores this well-known fact and insists that students stop lazing around in bed and just get to school on time. Perhaps if it considered starting school in the late morning, many of the lazy youngsters would start paying much more attention in class.

Staggering school and working hours would provide a win-win solution to everyone. Unfortunately, this rule seems to belong to the category of the unquestioned traditional rules, which make changing it rather difficult indeed.

What the System can do

What it can do now

Knowing its own Mindset

Many people in the system run it with good intentions. Unfortunately, this otherwise wonderful mindset causes a conflict when one implements systems more or less blindly, with little *accurate* feedback from the people in the system.

The people running the system must take a comprehensive overview of what its policies actually entails. For instance, when the students have to content with "compulsory 6 hours voluntary work", it makes a mockery of the goals and purpose of the system that seeks to promote "care and concern for others" because true caring comes from the heart, not a policy mandated by someone else.

It must recognize that patching the deficits of the system by adding courses or in creative thinking, critical thinking, moral education, national education, and the like merely worsens the system state. Likewise, mandating policies like the 6 hours compulsory 'voluntary work' will not bring about the true spirit but only provide an illusionary, false substitute.

One can refuse to acknowledge this principle and just implement these. However, the students would only think of these as yet another entry in the list of "to do" or "to study", unless of course they have the rare opportunity to meet a great teacher that actually goes beyond what he or she has to do and communicates the true essence of these concepts to them.

Understand that change starts from within

Change must start from within the students, not from without. A million initiatives, creativity workshops, and critical thinking lessons would make no difference except to provide fodder for the Public Relations department. A million 'A' Distinctions, more activities organized by the school or lots of free gifts and lucky draws would hardly solve the problem.

Only the true understanding and application of inner change will give one the ability to make a difference. The people in the system must acquire the trust to enable them to listen to each other without hiding, fear, ridicule, or aggression. Declaring this by fait will not help, and neither will 'feedback sessions' which seem more like muted discussions to appease everyone present than to debate essential and serious topics in detail.

Know its mission and vision

Nothing less than a change of mindset within the system, from all the people in the system including teachers, students or administrators, will we even have a chance to target its root problems. Nothing but the sincerity that comes with true empathy, trust, and participation of everyone in a total revamp and revision of the system's mindset can solve the problems. The source of this new mindset comes from knowing very clearly and sincerely from one's heart, what the system wants to achieve.

The people who manage the system must evaluate what they really want to system to do. They have to clarify their priorities, goals, and vision.

Do they want to have a system that effective segregates students based on academic performance or a system that helps them develop their full potential? Do they want a system that dishes out lessons like preprocessed dishes rather than going the extra mile in helping the students with independent learning?

Do they want a system that treats students as if the students owe them a living rather than the students as customers that would one day grow into responsible, honest, and active members of Singapore? Do they want to design a system to prove their thinking and mindset right, or to provide the maximum intellectual benefit to the people who trust them to provide a wonderful educational experience?

Maintain integrity by remaining steadfast to its principles

Especially for the higher levels, the system must refuse all forms of superficial learning, protecting its integrity against their corrosion. It must give up outdated concepts such as compulsory attendance, passive learning, superficial policy implementation, reactive thinking, dependence on authority, learning for survival's sake and many others.

I remember how I sighed when I heard that some literature lessons would use Anne Frank's diary as a reference text. What a terrible disparagement of such a wonderful story! Sometimes I have thoughts that go beyond what the textbook says, or I read far beyond what the syllabus requires me to, yet no one seems to bother to listen or care about them.

The system must at least provide the quality to match the works that it teaches, even if not for the students, but also to honor those people who created these works. It must not attempt to bury many visions and feelings of the great writers, thinkers and inventors in tests and grades. It must recognize the domains beyond the text and encourage the students to delve into these rather than frowning on them as they “go out of the syllabus”.

Trust and listen to their customers

The customers of the education system should have some say in how they run the system and some organization with student involvement set up to expose bad educational practices, instead of relying on professionals who do not study in the system.

Some people might consider the Ministry of Education as a good place for sending feedback. Perhaps they should listen, but their mindset does not seem conducive to this. Many know how red tape can prevent the authorities from acting on feedback. It seems wiser to have a separate organization dedicated to this task.

Ideally, the organization should have a specialization focus towards education, particularly from the students, rather merely act as a collection point for all sorts of feedback. It should take an active approach towards investigating the problems of the system, such as hiring agents to investigate the system, rather than passively wait for people to report these.

It should have minimum conflicts of interest with other people involved in the educational system so that it can do its job unhindered by conflicts of interest. Very importantly, it should disclose how the operations of the education system and encourage others within the system to do so too.

Learn from other alternative schools

In the appendix below, I list a few alternative systems for reference. Those who make policy might wish to consider incorporating some of their designs into the educational system.

The Future of the System

The traditional school, based on the structure of the Industrial Revolution, will eventually go the way of the dinosaurs. It has only remained for so long due to the inertia of itself and that of governments and establishments around the world. Bureaucrats have a talent for designing self-sustaining systems that just refuse to quit, like the Duracell bunny.

The belief that web enabling content can save schools would only prove futile. Such a cosmetic change cannot make up for the rest of the flaws of the system. Advanced technology does not make a successful company, rather, successful companies use advanced technology to make themselves better. Advanced technology will only make a company built for failure, fail faster.

The universe has not granted educational systems from this rule. Neither putting the cart before the horse (by using advanced technology blindly), nor spouting excessive hype keywords such as “e-learning” will help these schools avoid their eventual fate, even if it might take a relatively long time to happen. Eventually, schools in their current state would prove so unviable, with their flaws grown so blatant and costly, that no sane society will accept them.

I prefer not to speculate about the uncertain future. If I must, I believe that schools of the type we see today would no longer exist in the future. Its replacements would come in the form of public libraries and private corporations that invest in the talents of the people than categorizing them into a centralized system. Maybe kindergartens would remain as the only schools that might still exist.

These schools will not cater to only “normal” students. They will also target other kinds of students, especially those having certain useful talents no matter if current schools recognize about them or not. They will target the potential artist, the still maturing sci-fi writer, the geeky computer expert, and the future billionaire businessperson.

Rather than grade them and fit them into a uniform category, these schools will cater to their innate differences. Rather than penalize them for their weaknesses the schools will focus on developing their talents. Rather than demand that they conform to the class, the school itself will conform to their unique needs and differences.

They will recognize the true meaning and potential of learning, and bring it far beyond the picture of factories pouring knowledge into the empty heads of students and requiring them to regurgitate this knowledge during massive “quality” testing.

Education will return to its human roots: a process to help one discover, plot and travel one’s journey in life. Unlike the students of today who focus on materialism and fear change, the students of tomorrow will feel for Humanity and take change in stride as opportunities to change the world for the better. One will bravely answer the tough question life throws at oneself, develop one’s true vision, and proceed on one’s journey of adventure and meaning.

To help meet the challenges of the future, the planners should help ease the way in converting the current system into the new one. They can carry out changes in a safe manner, with an opt-in option for those who wish to try out the new system. In addition, they can encourage other people to set up alternative schools and see what solutions the marketplace can provide.

What we can do

What to do

Firstly, we must learn to depend on ourselves for our own education, rather than the government or our employers. I never excluded the possibility of studying by myself. In fact, for these few years, I usually study by myself despite having to go to school. I never intended to treat the formal education system as the only route to providing a comprehensive education for myself.

Secondly, we should consider the meaning and purpose of our lives. We have to take our education and lives seriously enough to think deeply about them. After knowing what we want, we act based on these.

Thirdly, if we know how to improve the system, we can consider doing our part to change it in the unique ways that we can help, in a peaceful and cooperative manner.

What I think

Sadly, I do not see the necessary changes in the education system coming, at least not for the next decade. Most people in Singapore will most likely feel highly skeptical about what I write here (probably labeling me as an idealist American-like dreamer). The Government also tends to remain highly conservative on this 'sensitive' issue.

Without adequate preparation or ability to assist with this transition, and without anyone with sufficient authority to invite my participation, I would prefer to remain at the sidelines doing other more productive things. If I cannot change the system, then I would not force myself to do so.

I do not have any desire to play politician or to keep grumbling about the system. I have a million things to do, and I had already wasted a lot of time in the past and have my efforts taken for granted. If they want me to waste more of my time pointing out the flaws of the system, then they had better pay me something just as they pay those consultants they hire.

Conclusion

I contribute this article in goodwill, and I hope that this will not remain as the last word on this topic.

From a former (very dissatisfied) student in the system,
Eric Chen, <http://eric.webhop.net>

Appendix

I had also provided some references for materials that challenge the current mindset of education. This does **not** mean that I support all or any the ideas stated in them. Readers should consider how to learn from these on their own discretion.

Some stuff I had read

The Ministry of Education in Singapore
<http://www.moe.edu.sg>

Managing your own Learning
By James R. Davis and Adelaide B. Davis

The teenage liberation handbook: how to quit school and get a real life and education By Grace Llewellyn

The many books and websites that I had lost count of

Opinions from other people

The Underground History of American Education by John Taylor Gatto
<http://www.johntaylorgatto.com/chapters/index.htm>
[Unread until after 15 Aug 02]

The 6 Lesson Schoolteacher
(and other writings on the website)
<http://hackvan.com/etext/6-lesson-schoolteacher.html>
[Unread until after 25 Aug 02]

The Animal School
A story of the system taking precedence over students' learning
<http://www.cyberus.ca/~oafccd/lanark/school.htm>

Richard Garlikov's Writings
<http://www.garlikov.com/writings.htm>

Other Alternative Schools

Sudbury Valley School
<http://www.sudval.org/>

Diablo Valley School
<http://www.dvschool.org/>

A list of related schools
<http://www.dvschool.org/othersvs.htm>

The HeartLight School
<http://www.cwg.org/en/10/10-30-35-10.html>
<http://www.heartlightinternational.org/>

Maitland School of Advanced Learning
<http://www.champgroup.com/msal/>