You have questions and a genuine concern on the current and future state of education in the USA. You often ask why education has become so poor. Why is the US lagging in math and science scores? What are we (the government? the parents? the schools?) doing to improve our education?

I attach a provocative op-ed article published in Time Magazine (2006), “How to Bring Our Schools Out of the 20th Century”. Read and discuss its contents with friends, your group members (and also in class). More importantly, what has happened in the last 6 years. Has education improved? Are we getting any better? Has the quality and effectiveness of undergraduate teaching in science, technology, engineering and mathematics (STEM) improved?

**Today's news is revealing:**
http://www.edweek.org/ew/articles/2011/09/14/03stem_ep.h31.html
http://www.insidehighered.com/views/2011/09/13/essay_on_the_economy_and_science

In addition, please also find attached an educational research article focusing on "THE UNDEREDUCATED AMERICAN," from the G Washington University Center on Education and the Workforce. We not only have to improve/better education but we also have to offer a college education to millions more of Americans. How can we do this? Is it even possible? Are we definitely falling behind?
You are an informed citizen and a responsible student and professional. You and I take the issue of education (very) seriously. Our survival (and that of your children) depends on it.

Hence, read the material provided, find more material and resources to make an informed opinion, discuss it with your group/in class, and write an essay (due on Sept 29) 600 words max on the topic of "**Education in the US: how can we recapture our leadership in the world, how can we ensure the progress and success of this and future generations, how can we promote/deliver STEM, etc."**

Luis San Andrés
MEEN 489 Lecturer FALL 2011

**STUDENTS GROUP ESSAYS FOLLOW**
The reader (your lecturer) made some notes: **highlight** (kernels of wisdom), **blue**: important discourse, **red**: odd sentences, corrections to typos, etc. Few essays offer complete references and adequate referencing in the main body of the essay.
**One group essay missing – no e-copy delivered**
EDUCATION IN THE US

Introduction
The United States of America at one point had the most desired education system in the world. The recent globalization of the economy as well as the increased competition amongst nations have changed this. The United States is now falling behind the rest of the world in education, especially math and science. What can the US do to reverse this trend? What can parents do to ensure that their children have the best education possible? The answer lies in our ability to prioritize education, and dedicate our time to this change. Something as simple as sitting down to read with your child every night instead of watching TV can make a world of difference. The government can place more emphasis on actual education and not teaching students to pass a common examinations. As you ?? (one) can see the future of our education system is currently in limbo; it relies solely on our ability to put a new emphasis on teaching our children the skills that will be required in the new, global world that we live in today.

There is a Need for Well Rounded Students
Currently the emphasis of the No Child Left Behind (NCLB) policy is not good. NCLB concentrates on reading and math as the minimum. In today’s society these skills are important but are not the end all be all solution. That being said, young students need to be more informed about the world around them, not just their own nation. This can come in the form of acquiring a second or third language, diversity in different cultures or social studies on World history. Another important quality to develop is people skills, or in other words, emotional intelligence. The inability to communicate is paralyzing to team work. In team activities communication is the key to success, especially since the best innovations originate from big team projects.

Parents Are Vital to Future Generations Intelligence
The task and burden of improving the education of our children cannot be placed solely on the school. The parents of today and the future must take responsibility if they want their children to succeed in life. The children whose parents had taken the initiative to begin teaching math and reading before traditional schooling begins are leaps and bounds ahead of those kids that only learn at school. In that regard, to improve learning, the US needs to have the traditional involved parent household. Revolutionary teaching methods, after school programs, and better teachers can only do so much, but parents that support, help, and push their kids to learn should be the real goal.

American Education Compared to the World
American education is in need of an overhaul. In an era where everything can be found online in a few seconds, much of the education process still consists of memorizing information that doesn’t have any real-world value, past passing the next exam. In other countries (that are greatly surpassing the U.S. in education) children are being taught key theorems in depth and in a tight sequential order that is important to the learning process. These other students are learning how to make connections between ideas and being taught how to continue learning, things that most learn for the first time in college in the U.S. It is imperative that the U.S. system evolve to match competition from other countries, lest we fall behind.

Works Cited
Reference citation is correct. More references provided but not used.
Essay opens with a historical fact and immediately makes a strong argument for the parents’ responsibility in educating their children.
Discussion list attributes for a well-rounded education and the skills to succeed in a fast-pace changing world.
A weak last paragraph compares US education to that in other countries. A final sentence calls to action.
Assignment 2: Education in the USA and its Future

After reading several of the articles about the current state of education in America (see Works Referenced), several issues (things) became clear. America is losing its edge over other countries in the global market, especially in the area of technical skills and abilities, and fields such as math and science. Americans today are struggling to provide adequate schools that actually educate the children and inspire lifelong learning. While causes behind these issues are broad and complex, there are some things than everyday Americans can do to improve the current situation.

Issues that affect education in the US as a whole are numerous and are on a grand scale. Addressing some of these matters will improve the American school situation immensely. The first issue to address is teacher quality. Without good teachers, there is no chance for the education system in this country to be competitive. There needs to be a higher emphasis placed on developing better teachers and increasing the pay of teachers based on merit. This includes the removal of the teachers union to allow the best teachers to be retained and paid on merit instead of seniority. Low performing teachers should either be let go or put into programs to improve their performance. In the private sector, an employee is fired if he or she begins to perform at a sub-standard level, why should there be a difference in the education system?

One other element of the U.S. education system that has diminished over the last few decades is the scholastic pursuit of science and engineering. By involving students in science and engineering oriented summer camps, maybe even mandatory ones, an interest in these fields can be developed for students who may not get regular exposure to these things at home.

Although it is said that it takes a community to raise a child, the most important influence in a child’s education stems from the home. Parents can aid in improving the current education system by encouraging their children to participate in extra-curricular activities that promote learning, such as science fairs and math competitions. Even organized sports events encourage critical thinking skills. It is also the parents’ responsibility to ensure their children are in school during designated hours. When it comes to deciding on higher education opportunities, by informing children of the advantages of receiving a higher education, parents can instill a desire in their children to go to college. However, a desire to go to college does not ensure the ability to afford it. Many students are unable to afford the rising cost of higher education, which increased some 400 percent over the last thirty years [5]. By starting a college fund early on, parents can alleviate the financial burden over time and increase the probability of their children attending college, and thus improve the level of education in the United States.
References


Reader notes:
- Avoid repetition of word “THINGS”. It means too many THINGS
- Good list of references but none cited in main text.
- Essay introduces/discusses briefly known remedies to improve educational standards. Both fixes rely on (a) better teachers and (b) more responsible parents. Little is told about the students themselves as enablers or responsible for their own future.
- Keep same font and size in essay (font style different in main text and references)
Advancing US Education in a Global Society

The United State’s position as a global player is at jeopardy unless serious effort is put into changing the manner in which our children are educated. Our country is behind many foreign nations in the subjects of math, science and global awareness. In order for this reform to be successful, it will require participation from government, educators, parents and children.

America’s competitive advantage has historically been its ability to think innovatively and apply creative solutions to tough problems. Americans are taught and encouraged to be independent people. Although reform is needed, it is important to recognize this strength so that changes help maintain and increase this competitive advantage.

After reading the Times article “How to Bring Our Schools Out of the 20th Century” [reference], I (we, the group ?) believe the first step is to instill a global awareness in children. Awareness of global activities will provide an opportunity to learn about other cultures and how countries interact. This can be incorporated by talking about world events in class and at home. This is easy and has a minimal cost attached.

Critical analysis skills (of whom?) also need to be developed. The ability to interpret information and see “patterns where other people see only chaos” is an invaluable skill (Times?). Information is abundant in today’s society. Children must learn to quickly decipher which sources are reliable and what their motivations might be. Determining the quality of information is a fundamental step for making intelligent decisions. A good example of this is military operations. A mission will not be put in motion unless the quality of the intelligence is acceptable. American’s value to the global society is the ability to analyze and to make logical decisions.

In the article “The great school revolution” [reference], it is mentioned that there is a relation to good schooling and the amount of money spent in education. There is an interesting relationship for the United States in this manner. Spending for education is the highest in the United States, however, we “lag behind other developed countries on overall outcomes in secondary education”. A study by PISA (spell acronym) states that only about 10% of the variation in student performance has anything to do with money (Reforming ?). The gap for education, instead, is believed to come from the differences in the social class. Inequality between classes is said to be one of the main reasons why students underperform.

In order to increase pupil performance, some countries have increased the number of independent academies to replace the local schools. However, the creation of new types of schools does not guarantee better outcomes. These types of schools have not proved themselves more or less beneficial when it comes to international rankings. So what is the key to success in advancing global education? The “Reforming Education” article suggests that diversity of supply is by far the most striking. Also, no matter the diversity or the shininess of a school, without good quality teachers, the schools will struggle. Better teacher quality has been an
important emphasis in all education reforms. The item that should be at the top of the list in advancing United States education should be better teachers.

References:

“Reforming Education: The great schools revolution." The Economist Date: Sept. 17, 2011

LSA notes:
- References listed but their call in main text is awkward. but none cited in main text.
- Keep same font and size in essay (font style different in main text and references)
- Essay identifies global awareness/diversity as important issues to enable a better education. It also notes that better teacher quality is key to raise education standards in the US. Little is told about parents (family) and students themselves as enablers or responsible for their own future.
Education In The U.S.

As science and technology advance every day, education must keep up with the fast pace of the economy in order to maintain positive growth in these fields. The United States, once the most revered superpower in every category, has begun to take a backseat to foreign competition; and education may be the best investment this country can make. With math and science a clear link to technological advancement, higher education in engineering and sciences is vital for competition. While other educational fields are required to create a balanced society, scientific education not only solves the country’s pressing needs (energy, health care, food industry), but also creates new business within them. Engineering solutions to the aforementioned feats would create a solid investment that would offer added jobs to every industry as a result.\(^1\) However, such a solution requires a society of educated engineers and scientists.

Even with the problem and a possible solution outlined, getting there is still a challenge. Complacency and low expectations in the U.S. have allowed countries like China and India to churn out six times as many engineering graduates and patent many more ideas than the States.\(^2\) In addition, PISA scores reveal that at the age of fifteen, American kids’ reading, math, and science knowledge barely ranks within the top fifteen leading countries.\(^3\) (actual rankings are reading= 17, Math=31 and Science=23) It is clear that an effort must be made to attain more students with post-secondary education and a focus on science and creativity.

Changes in a society come from individual efforts, and the need of individual effort for change of the educational system is prominent. Parents especially hold prime duties regarding their children’s education. Many children lack encouragement, and many parents have been unable to create favorable environment for better education. Many parents discourage their children to learn math, science and engineering. As the concept of global village takes shape rapidly, we cannot leave engineering and mathematics problems for someone else to solve for us. The global market is always competitive, and the only way to compete with others is to be self-reliable, and a way to be self-reliable for the US is to create more engineers, scientist, and mathematicians. American students should also analyze the changes in the global market and must prepare themselves to compete in a globally interconnected world. Things taken for granted will be misused at least in some ways. An American student should realize potentials behind educational resources available to them which are out of reach for many students around the world.

As technology advances, the demand for young people with quality educations will increase. New technologies are often acquired by other countries due to the fact that the United States does not produce quality educated young people and the US will continue to lose the new technologies if something is not
done. With a better education, the skill set to learn more technical positions will be available so that the young people, which will allow that new technology to expand and grow.

As the federal government has become more powerful in recent days (How do you know this?), it can play a major role in funding college education. College education has become very expensive which is a deterrent for high school graduates joining a college. With the help of the federal government funding, many high school graduates will be encouraged to pursue a college degree.

Conclusively, higher quality education can lead to better opportunities for young people of the United States and allow the US to become a formidable opponent in the education sector. But with the current education statistics, it is prominent (evident?) that the US education system needs changes.

References


4. Carnevale, Anthony P. and Rose, Stephen J. “The Undereducated American,” Date and source of publication?

Reader notes:

- Most References are complete. References are called in main text.
- Essay has strong assumptions not clearly supported by resources or references.
- A number of odd sentences. A noticeable absence of articles and prepositions
In order to recapture world leadership economically and technologically, it is crucial that the government, teachers, and parents of this country find a way ensure educational progress, and promote STEM within academia and beyond. To ensure progress and success in this and future generations, several changes in the US education system are necessary. First, students must develop a global perspective. As students continue to better understand that changes from across the globe can, and will, affect their individual lives, they will be more inclined to take note of what is going on in the world around them. This can be stressed in the classroom. Next, the U.S. needs to shift from a curriculum littered with “mindless facts” to one that has been chiseled down to the basic fundamentals for math and science classes. This system is used by several countries who currently score higher than US students in both math and science [6]. Continuing the innovative approach to teaching coined “the flip” (?) may also ensure the progress of future generations. In this method, students watch lectures online at home then work problems via computers in class, essentially making lectures homework, and homework in-class work. This proves useful because it allows students the opportunity to seek one-on-one help from teachers as they attempt to work through various types of problems. With these new practices, the U.S. can not only maintain progress, but also elevate the success of its students globally.

While the government recognizes the need to further STEM education among American students, few of the government initiated programs have been effective. According to one 2005 study by the Government Accountability Office [2?], “…[in 2004] there were 207 federal education programs designed to increase the number of students studying in STEM fields and/or improve the quality of STEM education. About $2.8 billion was appropriated for these programs that year…” [2] Clearly the government has instituted programs to further STEM education, which begs the question: “Why have they not been effective?” Studies have shown that math and science education is crucial from a very early age. It can be assumed that the American education system is not sufficiently effective in elementary and middle school settings. In a document for Congress, it was stated, “many of those who taught middle school (classified as grades 5-8) math and science lacked an undergraduate or graduate major or minor in the subject they taught. Among middle-school teachers, 51.5% of those who taught math and 40.0% of those who taught science did not have a major or minor in these subjects.” [2] Perhaps it would be beneficial to alter the teaching certification requirements. Whether it be this, or another solution, something must be done to improve STEM education in elementary and middle school students.

The U.S. has held a leadership role by being the world’s lone superpower since the fall of the Iron Curtain. This is being challenged by countries that are quickly catching the U.S. in technological innovation. The U.S. must refocus education on science and math the way it did after Sputnik opened the government’s eyes to the nation’s shortcomings. Robert Slavin, an
expert on effective education, wrote, “The reason it was Neil Armstrong and not Nikolai
Armstronganoff who landed on the moon was that we invested in targeted, relentless research
and development. We did not manage our way to the moon, we invented our way to the
moon.” [4] Fortunately, the U.S. is known for having a culture that specializes in critical
thinking and problem solving; these abilities must be utilized to return the U.S. to its leadership
role.

References:
The Undereducated American [5] (SAN ANDRES SOURCE)
How to Bring our Schools out of the 20th Century (TIMES) (SAN ANDRES SOURCE) [6]
Flipping the Classroom [7] (SAN ANDRES SOURCE)

LSA notes:
• References in main text are in order of appearance [1], [2], etc.
• Essay identifies all actors involved in education: teachers, parents and students, and government.
• Essay quotes limited effectiveness of several STEM programs and calls for concerted action of all sectors
  for improvement, in particular teacher effectiveness and students’ awareness of global issues.
• Keep same font and size in essay (font style different in main text and references)
**Education In America**

A very truthful and revealing joke is used as the introduction for Time Magazine’s article *How to Bring our Schools Out of the 20th Century* [ref]. In the joke a man awakens after being frozen in time for a century and is shocked by the development of the modern world. *After some inspection the man finds that the only familiarity for him between the centuries is the appearance of the American schools.* While it is intended as a joke there is an underlying reality to the situation. In truth most schools have operated with the status quo mindset for decades. Schools have long been guilty of this mindset often thinking, “This is what our curriculum is” and failing to think, “What do our students need to learn in modern times to be successful.” This status quo is only expounded by the fact that public schools are not subject to the competition and pressures of the free market in the way a corporation would be. Make no mistake though, schools are competing and the competition globally is at an all time high. *American schools must innovate in order to compete on the global stage.*

Recent data shows a troubling trend. The Programme for International Student Assessment (PISA) rates the nations on their educational attainment in reading, math, and science. The most recent data, provided in the Economist’s article *Reforming Education The Great Schools Revolution* [ref], shows the United States has a top 20 rating only in reading (17). The U.S. is rated at 23 in science and 31 in math. These are troubling numbers that point to a lack of progress in the American school system. But how can the United States go about changing (hopefully raising) these scores?

Under the current structure, school and teacher performance is rated based on the results of standardized testing. Problems arise with this method because teachers focus on the contents of the test and not the material covered by it. Recently in Atlanta 178 educators were named as participants in widespread cheating, which involved the doctoring of exam scores (Washington Post). *Clearly incentive must be placed on student learning and not teacher evaluation.* In foreign schools this accomplished by giving students freedom to select a secondary school that they wish to attend. In America this is similar to charter schools. Many charter schools are creating new alternative curriculums that promote the values necessary for success in the modern world. In Michigan students at the Henry Ford Academy (a charter school) combine principles from multiple disciplines into a single project. Students have an open ended project where they must identify a product’s environmental impact and develop a solution for re-engineering the product to be more environmentally friendly (Time Magazine). There will always be problems with public education. Every student is unique and there is no “golden method” that will cure all problems in education.

*Ultimately, education lies in the hands of the American family.* Parents must not assume that their children receive all the training they need from public schooling. Parents must be proactive in their children’s education. This means parents must understand what is being taught at school and how it relates to the modern world. Parents need to be aware of current trends, such as what markets are rising, who is being hired out of college, and what type of people are finding success. In the end one of the most important things parents can do for their children is encourage them to have a plan for their future.
• References missing.
• Essay well crafted with a strong introduction: schools (and their methods) have not kept pace with other developments in learning and delivery of knowledge.
• Essay discusses fixes to improve educational standards. The fixes rely on (a) better teachers, (b) students learning to learn thru project based education, and (c) more responsible & involve parenting.
Assignment 2 - Team Hoof-Hearted

It is becoming more apparent that America’s role as a global leader is diminishing. There are many obvious reasons for such a trend; however, one that cannot be ignored is the relative decline in educational quality for children and young adults. This can be heavily attributed to a growing gap in scholastic caliber as other nations advance their motives and means of education and the US continues to implement a comparatively outdated approach.

The current US standard on grade school education is based on a foundation of standards and accountability. Students need to pass state-regulated tests with a certain percentage to be deemed proficient in a subject. Unfortunately, this means that what children and teenagers should learn has taken great precedence over how they should learn. Much of this way of teaching can be attributed to the No Child Left Behind (NCLB) Act implemented in 2001. At first glance, the spirit of the act is difficult to argue against because it forces states to set standards that all schools must meet. The Act attempts to ensure that all students are given equal opportunity. However, this method relies heavily on statistics and measuring (Ravitch, 15). The tests measure only certain tangible skills of an individual. Furthermore, having an increased amount of standardized tests gives students, teachers, and schools less room for free thinking. Often the curriculum is so focused on fulfilling particular criterion that it counteracts the goal of trying to get students to think for themselves. In 1984, George Orwell emphasizes the negative implications of reducing free thinking by saying, “every concept that can ever be needed, will be expressed by exactly one word….Every year fewer and fewer words, and the range of consciousness always a little smaller” (Orwell). It is absolutely necessary for students to develop their critical thinking skills rather than regurgitate answers. Confining them to the mentality of meeting minimum standards is very counterproductive. Forcing students to think “outside the box” will promote a life-long learning approach that will be more beneficial to society as a whole, as well as to prepare those going onto higher education [Wallis, 4].

Additionally, the US educational system needs to place greater importance on international cultures and customs. School systems must approach education from a more global standpoint than the current method does. Unfortunately, the US has been disadvantaged in this matter by its expansive area and geographical barriers that physically separate it from the rest of the world1. However, in a world with a vastly expanding global economy, it is unwise to educate society with an ethnocentric mindset. Teaching Americans about cultures, customs, and languages beginning at a young age will instill a better sense of global belonging in society. This is absolutely necessary, as technology has increased worldwide interface and exposure to different countries’ markets.

Schools still need to hold students accountable; however, the material for which they are held accountable must change. The future of America depends on the ability of its school systems to educate children and young adults. It is absolutely necessary to develop a global mentality if the US is to continue to thrive as a global power.

1 Editor: This rational was perhaps acceptable 40 years ago or more. Since three decades ago we live in an interconnected world.
Resources


Notes from reader
- unclear on referencing style [name, number]
- “The current US standard is based on a foundation of standards ....” I do not understand
- good essay with strong opening (first paragraph) but no resources for claim
- various pearls of wisdom in the essay. Nice.