Running Head: TIME IN SCHOOL: SUPERSIZING EDUCATIONAL HOURS

Should American Education Be Super Sized?

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Americans like to indulge in more of almost everything: shopping, spending, and eating. So it should come as no surprise that some policy makers and parents say the solution to making America's youth smarter and more competitive globally is to super size the length of time they spend in school. The current national average of six-to-eight hours per day for a total of 1,100 hours a year has failed to produce a country of geniuses. In fact, only one-third of U.S. eighth graders show proficiency in math scores - well behind Asian territories and countries such as Hong Kong, South Korea, Taiwan and Japan (Toppo, 2007).

To combat low test scores, President Barack Obama has called for setting higher standards, increasing teacher recruitment and training, and lengthening the amount of time students spend in school: "Now, I know longer school days and school years are not wildly popular ideas ... But the challenges of a new century demand more time in the classroom" (White House Press Office, 2009).

This paper uses academic research, theory and popular opinion to analyze whether more time in school equates to better-prepared students. First, an historical perspective is presented to provide context around how policymakers and administrators arrived at the current average of hours and days per year. Next, an international comparison is given to see where the United States ranks in school time among other industrialized nations. Finally, pros and cons of longer school days are presented from researchers and thought leaders in education and politics.

Historical perspective: How the average was formed

How did we get to where we are in this discussion of students spending more time in school? What is the history of classroom time? Data on the average number of days per

year attended by public school students from 1870 to 1981 shows the number of school days per year doubled during the 20th century (Table 1).

Table 1: Number of average school days in the U.S. by year (Snyder, 1993).

Year	Number of School Days
1870	80
1900	90
1920	120
1940	140
1981 - Present	180

Role of agriculture in determining school year

How did the school year come to be defined to start in September and end in June? Many people believe the schedule was devised so children could help their parents on the farm in the summer. But Stark (2009) and Mathews (2001) dispute that idea as myth. Closer to fact is that parents and children worked on planting and harvesting in spring and fall, not summer. If anything the summer break on school calendars was devised by people in cities, and not connected with agrarian lifestyles. Mathews (2001) argues that the low quality of urban school buildings and the high temperatures of summer raised concern regarding student health. But some children in urban areas spent 11 months in school because their parents, mostly immigrants, needed places for their children to be while they worked in mills, shops, and factories. Lapidos (2007) writes that in 1842, the school year in Detroit was 260 days, New York

245 days, and Chicago 240 days. Attendance was low for students, however, because education wasn't mandatory in most states until the 1870s.

With greater industrialization in the 19th century, equating public schools to factories was seen as positive. Educators wanted schools to become just as efficient as producing learners and factories were at producing goods. Schools were praised “for being like industrial plants in creating large, efficient, age-graded places that standardized curriculum while absorbing millions of urban migrant and foreign immigrants" (Cuban, 2008, p. 246).

The debate over school time

Who are those concerned with the time spent in school and how well it is spent? Politicians, employers, parents, and academics all have an opinion on this question. Since the late 1970s, business leaders and influential citizens have promoted the idea that poor schools are the reason for inflation, high unemployment, and cheaper foreign products. Politicians say that American students are behind when compared to international test scores with European and Asian students who have longer school years and score higher. Employers, looking for essential workplace behaviors like *punctuality*, regular attendance, and following rules question if the shorter school year in the U.S. is responsible for a decline in these attributes.

Parents have strong feelings on the subject as well. Those who work full-time need their kids to be well cared for during the day and to stay there until time for pick up. In addition, some parents believe that more school means better school, while others firmly believe that all children deserve a summer vacation. Criticisms from professors of education say the current school day leaves little time left for teachers to pursue new knowledge. Proponents of technology criticize

the school schedule because the whole system seems antiquated with students in rows of desks for 180 days per year, while outside the school building a boom of digital devices is underway, a revolution that doesn't require students to be in a building to learn (Cuban, 2008, p. 241).

Still, 180 days per year remains the norm, even among year-round schools, which first appeared in Gary, Indiana in 1906. So is there a link to more days in school and higher performance? "Longitudinal and rigorous research on time in school was – and is – skimpy. The studies that exist are challenged repeatedly for being weakly designed…most of the studies show serious design flaws and, at best, show slight positive gains in student achievement" (Cuban, 2008, p. 244). So if there is no careful research to promote longer school days, then from where does the impetus to extend them come? Cuban (2008) believes there is a strong misguided trend of conservative social goals among U.S. citizens that continually overrides research to the contrary. Longer school days, in Cuban's opinion will do nothing – however the quality of time spent by students and teachers in and out of the classroom can make a difference.

International averages: How the U.S. compares

Why are Americans underperforming?

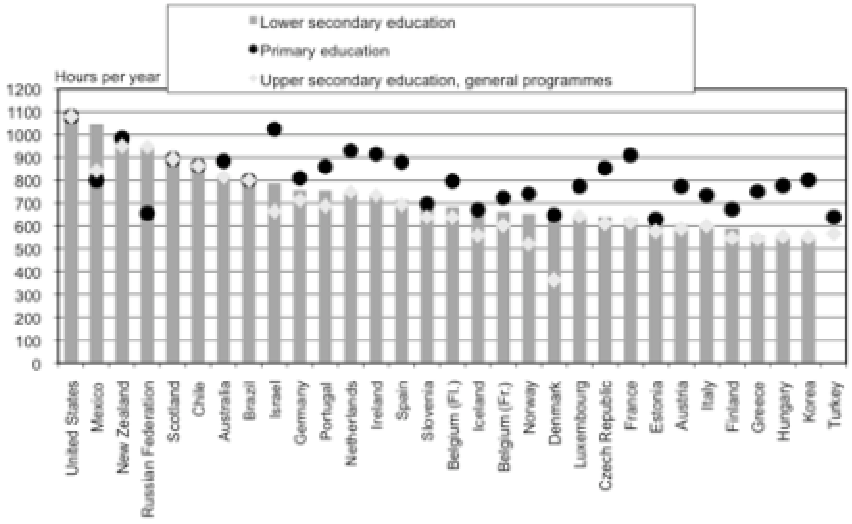
The mantra citing American students' underachievement as compared to their international counterparts is not new. Critics in the most recent decades have described the issue as a school-based problem that focuses solely on the activities and interactions during school hours. In lieu of focusing on broader social initiatives such as the Canadian and European tax incentives for stay-at-home parents, the U.S. has addressed the issue with more rigorous and frequent testing (Baines, 2008). Tied to this reform method is the interpretation of time as an indicator of more

serious and rigorous schooling in other nations.

According to the Education at a Glance 2008: Organization for Economic Cooperation and Development (OECD) Indicators, students in public schools at 22 out of 31 member countries spend an average of 701 hours per year in school, see Chart 1. In Finland, where students have scored near the top in international comparisons of achievement for a number of years, students spend only 600 hours in school. In the United States, by contrast, children go to school for six or more hours per day, five days per week, for approximately 185 days spread over a period of nine or 10 months. (Baines, 2007).

Chart 1: Number of teaching hours per year, by level of education (2006)

Net contact time in hours per year in public institutions, as cited by the OECD indicators

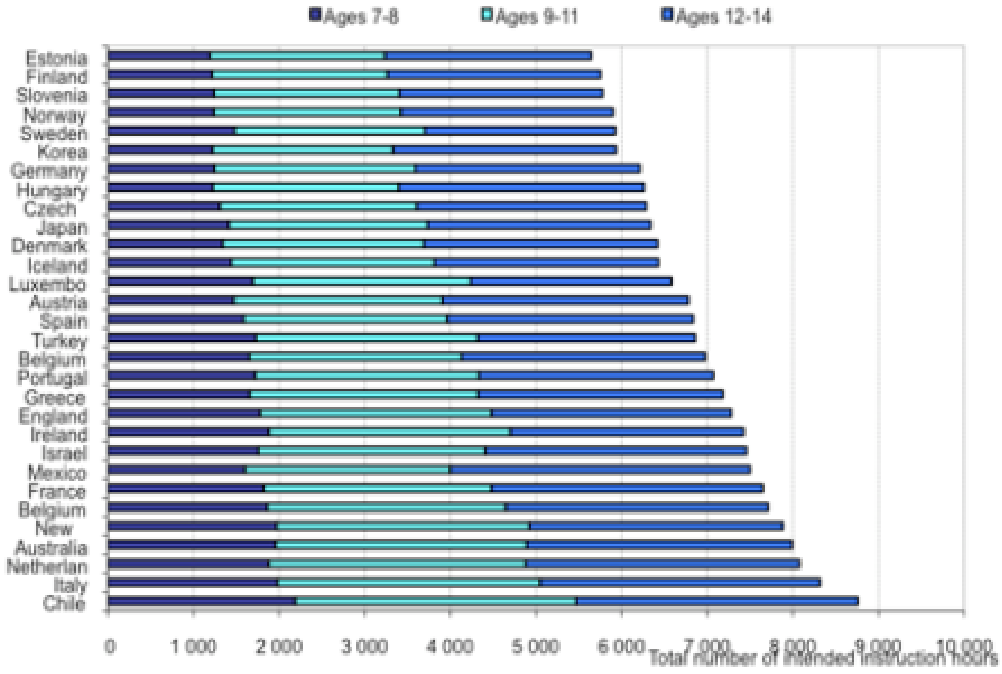


Countries are ranked in descending order of the number of teaching hours per year in lower secondary education. Source: OECD. Table D4.1.

The average time spent in school, each year, in the U.S. totals more than 1,100 hours, almost double that of children in Finland. By the time children reach the age of 14 in the U.S., they will have gone to school an average of 8,100 hours as opposed to 5,600 hours in Finland, as

referenced in Chart 2. Despite much longer school days, American students routinely score 10 to 20 percent lower than Finish students on international tests of achievement (Baines, 2007). According to Bassett (2008), compulsory school education starts at grade 1 (age 7) and ends in grade 9 (age 16), after which 95 percent of Finland's students voluntarily attend either upper secondary academic school (headed for university) or upper secondary vocational school, where they will then head to the workplace or further higher education in polytechnic institutes. The success of the Finish educational system cannot be attributed to additional instructional time since school runs from 8 a.m. to noon or 2 p.m., depending on the age of students, and the school year is no longer than in the U.S. (Bassett, 2008)

Chart 2. Total number of intended instruction hours in public institutions between the ages of 7 and 14 (2006)



Countries are ranked in ascending order of total number of intended instruction hours.

Source: OECD. Table D1.1.

Hlebowitsch (1989) notes, "The notion of time has little value unless it is supported with a

discussion of deeper, more qualitative educational concerns" (p.24). He goes on to call attention to the average number of days in the average school career of a student enrolled in each type of educational system. The U.S. compares favorably on this scale because it has a high level of participation in both the pre-university and university levels:

> "In the U.S. 75 percent of the students are enrolled in the pre-university level (about half of which go on to college), while, in the case of Federal Republic of Germany, the pre-university enrollments account for only 9 percent of the age cohort. The school day and school year are shorter in the U.S., but a higher proportion of the high school age group is actually going to school. Thus continued school time is logged for a higher share of the school population in the U.S. The Soviet Union and Japan, like the U.S. also retain a high number of their high school age population in the secondary school, but in both these countries, opportunities for higher education are still quite limited (Hlebowitsh, 1989, p.24).

Arguments for increased classroom time

As Extended Learning Time (ELT) has only been in place for approximately 2.5 years, mainly in Massachusetts but also in Chicago, Florida, Rhode Island and a few other locations, much of the research is still being gathered. Furthermore, longer school days does not mean the intention was put forth to solely assist in the area of academics as one will read. Rather, longer school days may have been put into place for the benefit of saving costs to school districts and maintaining jobs.

Maintaining skills: The Rhode Island Alliance

Those favoring more school time argue that students lose their skills during long summer

breaks and lower income children, who have limited resources at home, especially need more exposure to the classroom. Ron Fairchild (2008), executive director of John Hopkins Center for Summer Learning, noted that study after study has shown that students lose much of their math and reading skills, which are essential to learning, during the summer break and place them even further behind in their skills. Further, the loss of skills is even greater within the lower income areas. Thus, one state, Rhode Island, has utilized these studies and taken the research into account, while having a desire to improve their school system.

The Rhode Island Afterschool Plus Alliance is an advocacy group that campaigned for more school time. "The initiative has two long-term goals: improving student performance in high-poverty urban areas, and increasing high-school graduation rates by keeping students at-risk of dropping out engaged in school" (Fairchild, 2008, p.A47). Members believe that summer, after-school, extended learning, and extended-year programs for students, especially for those that come from the lower economic bracket, will assist in improving the success of all students, particularly for those far behind.

The initiative, which received additional support from the Nellie Mae Education Foundation, is different from other state initiatives because state political leaders agree on the importance of after-school and summer learning: "While adequate funding is still a challenge because of the tight state budget, having public officials who understand what is at stake is a significant advantage" (Fairchild, 2008, p.A47).

However, much of the success of this program is dependent upon how the legislators consider incorporating funding into the state education aid formula bill. Since Rhode Island did not have an education-aid formula previously, including summer and after-school in their bill it

is believed, by the state political leaders, to be a progressive start and looked at as forward thinking (Fairchild, 2008).

Moreover, Fairchild believes that this initiative would highly benefit those students who come from the low-income/poverty areas, as "high-quality summer learning programs will provide children a safe place with adult supervision, a source of healthy meals, and educational and developmental opportunities that are otherwise difficult for them to obtain (Fairchild, 2008, p.A47)." Rhode Island officials view this longer school year as a means to end a needless waste of good minds, allowing greater educational achievement, as well as opportunities for all students, and furthering equality for all.

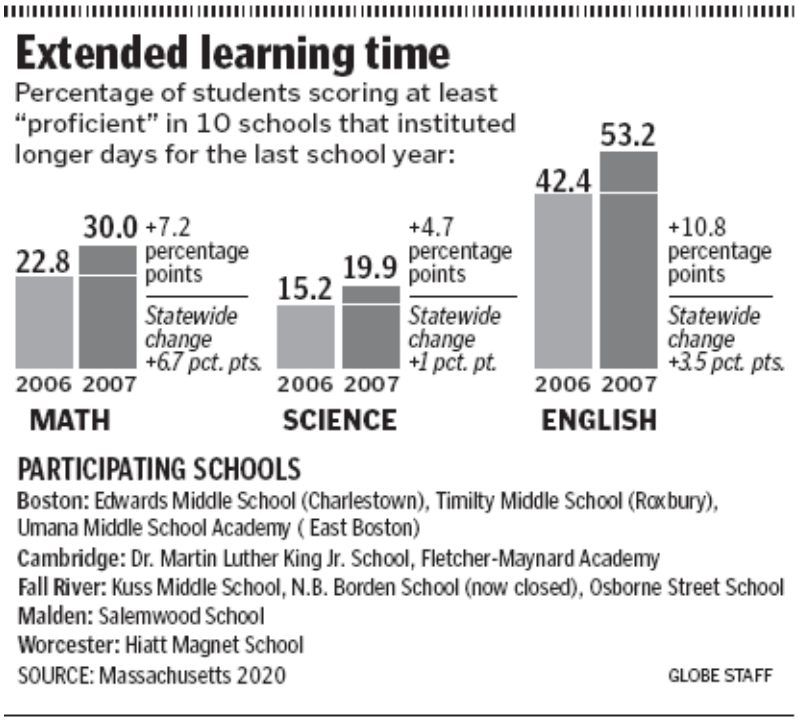
The Massachusetts Model

Massachusetts has been the model and success story so far for the extended school day. A total of 10 schools, charter and public, in Massachusetts extended their school day by 25 percent in 2006. Included in the extra school time were extended reading, math, and writing programs, as well as creative reinforcement of concepts taught (Pytel, 2007). In addition to the extra time focused on reading, writing and arithmetic, formerly cancelled programs such as art, music, sports have been reinstated in the extended school day. Teachers also benefit from the extended school day as time for team meetings and extra teacher training can be focused on and completed (Pytel, 2007).

Participating schools are expanding school time by at least 300 hours per year to improve student outcomes in core academic skills (Hough, 2009). Results of the Massachusetts assessment tool showed growth after one year of the extended school day. Students improved

their performance on their state assessments by 7.2 percent in mathematics, 4.7 percent in reading and 10.8 percent in English, as referenced in Chart 3. Upon reviewing the statistics of the Massachusetts assessment tool, Massachusetts Senator Edward Kennedy urged Congress to pass a bill that would require the entire nation to reform its school day to the model put forth by Massachusetts. The program was costly, however, Massachusetts spent $20 million overall and an additional $1, 300 per student in the 10 schools (Pytel, 2007). Due to the success of the 10 schools, 18 more schools were scheduled to follow the model program during the 2007-08 school year with 33 more that followed in the fall of 2008.

Chart 3. Percent increases for math, science and English for those school participating in Extended Learning Time in Massachusetts (2007).



In addition to higher assessment scores, schools with longer days have received an increase of applicants. Last year, at Edwards Middle School in Massachusetts, the school received 243 applicants for just 80 sixth grade slots. Parents and students alike are eager to get into schools with longer school days (Hough, 2009).

Can you imagine your kids going to school 4 days a week?

The following arguments for a longer school day are backed by the school district in an effort to save energy and cost as well as to give school employees longer weekends. This report is not intended for the benefit of a student's academic improvement, but rather on how school districts are going to longer school days to save jobs and money. Yet, one visible benefit that has been documented identifies that these longer school days have improved student attendance.

In 2008, according to the records noted, there were approximately 100 rural schools in the United States that have adopted a four day a week school schedule (Lance, 2008). Parents had a large concern regarding this change primarily due to childcare, especially for the younger children. As for the older children, parents were concerned about fatigue and boredom setting in during the last hours of the ten-hour day. Yet, for some school districts in South Dakota, it is a benefit allowing millions of dollars to be saved, as well as more instructional time for educators.

Longer School days can expose students to life skills

A report (Hough, 2009) on how students are learning life skills and elective courses that have been taken away due to budget crisis in the past focuses on enrichment courses that are allowing the students to learn informally. They become engaged in the activity and are having fun while learning. Grades have improved for most students as they participate in these

enrichment courses and the extended school day.

The Center for American Progress has been examining high schools that have implemented either longer school days or stretching the school year into the summer. Director, Cindy Brown, of education Policy for the Center stated, “Expanding learning time may be the only way to catch kids up and get them on a pathway to productive adulthood (Wood, 2007).” The extension of the school day or year would not need to be solely limited to the classroom. According to the Center for American Progress, more than 300 initiatives across 30 states had expanded learning time, primarily in high-poverty and high-minority schools, between 1991 and 2007 (Hough, 2009). Research has shown that most of the successful programs are those that allot the students to experience college programs or internship programs that expose them to real world situations(Wood, 2007). According to Wood's(2007) on-line article, longer doesn’t necessarily mean better. But when the longer day is combined with strong academic offerings, high expectations, and extra support, it can help prepare students for college and life .

Many schools that are moving forward with efforts to improve their schools are following charter school models regarding time on learning, where more than two-thirds run on longer days (Hough, 2009). Mass2020 is a nonprofit program which oversees the pilot program in Massachusetts. Cofounder, Chris Gabrieli, of Mass2020 has been studying the benefits of the Extended Learning Time (ELT), especially for achievement gap kids who attend charter schools such as KIPP [Knowledge is Power Program] or Roxbury Prep where the school day is far from the traditional school schedule (Hough, 2009). Furthermore, those schools who have had voluntary afterschool programs are opting to abandon them and changing to mandatory longer days or extra weeks due to attendance which can be inconsistent in the voluntary programs.

Research completed by the Harvard Family Research Project has found that, afterschool programs can work, but programs need to be both of high quality and attended on a consistent basis (Hough, 2009).

Chapter nine of Malcom Gladwell's book, Outliers, tells the story of Marita, a fifth grader who attends a KIPP school in the south Bronx and is making tremendous academic gains throughout the school year and summer months. He uses this story to emphasize his contention. “An enormous amount of time is spent (in the United States) talking about reducing class size, rewriting curricula, buying every student a shiny new laptop, and increasing school funding- all of which assumes that there is something fundamentally wrong with the job schools are doing...The only problem with school for kids that aren’t achieving is that there isn’t enough of it" (p. 259). He uses data from research conducted by Karl Alexander at Johns Hopkins University who tracked the progress of 650 first graders from the Baltimore public school system, looking at how they scored on the California Achievement Test. The test was given at the end of the school year in June and then the following September. Using this method allowed Alexander to see the academic gains made over the course of the school year in comparison to what happens during the summer vacation. Gladwell calls out the 32-point advantage of the first graders from the wealthiest homes over the first graders from the poorest homes.

Chart 4: Reading scores as reported from "Outliers" for the first five years of elementary school, broken down by socioeconomic class- low, middle and high.

Class	1st Grade	2nd Grade	3rd Grade	4th Grade	5th Grade
Low	329	375	397	433	461
Middle	348	388	425	467	497
High	361	418	460	506	534

Gladwell indicates that the data in chart 4 may lead to the conclusion that somehow students from low-income homes are failing in the classroom, but he uses chart 5 to detail the academic gains made throughout the course of the year. The "Total" column represents the students' cumulative classroom learning from all five years of elementary school.

Chart 5: Achievement gains: September through June, as reported in Outliers

Class	1st Grade	2nd Grade	3rd Grade	4th Grade	5th Grade	Total
Low	55	46	30	33	25	189
Middle	69	43	34	41	27	214
High	60	39	34	28	23	184

He goes on to conclude that students from low income homes are "out learning" the wealthiest kids during the academic school year detailing the loss that occurs during the summer months, in Chart 6, when school is not in session.

Chart 6: Change in reading scores during summer months of June through September, as reported in Outliers

Class	After 1st	After 2nd	After 3rd	After 4th	Total
Low	–3.67	–1.70	2.74	2.89	0.26
Middle	–3.11	4.18	3.68	2.34	7.09
High	15.38	9.22	14.51	13.38	52.49

From Gladwell's work amongst others, it should be noted that there is a bias here due to

the fact that the students want to attend this type of school environment. They are made aware of the school program and its length of time prior to enrollment. Thus, this forum should not be used in comparison to other studies that explore the longer school day, as in that aspect the choice is not an option.

Arguments Against Increased School Time

How is time spent?

Critics of students spending more classroom time than the norm argue their case on several levels. Aside from the monetary cost of keeping kids in class longer, how schools and teachers use the time varies widely from district to district and state to state. Just spending more time in the classroom cannot ensure better learning. In fact, too much time in class might have diminishing returns. Karweit (1985) reviewed studies of school time and found that because of the variation and inconsistencies, increasing school time will not result in higher student achievement. Proposals to improve the quality of school time have not taken hold because of cost, lackluster research, and the importance of conservative social goals to U.S. taxpayers and voters (Cuban, 2008). Assessments and measurements tend to impress American parents more than less structured methods of learning. But research into child development and education shows those rigid methods often are counterproductive.

The importance of play

President Obama (2009) has compared the United States average length of school time unfavorably with South Korea's schedule, which is one month longer. But that comparison does not take into account whether Korean children are leading a more balanced or happier lifestyle than Americans, nor does it predict future academic success. A doctoral dissertation by Samuel S. Kim, reported in the *Korean Times* (Si-Soo, 2008) found that Korean Americans have a much

worse record when it comes to completing American Ivy league universities than American students do. Kim, according to the report, blames the high dropout rate on the emphasis Korean parents place on their children to study rather than participate in extracurricular activities. While American children and others are spending equal amounts of time on schooling and other activities, Kim found Korean children spend 75 percent of their time studying and only 25 percent on outside activities such as community service, (Si-Soo, 2008).

Several psychological studies in the early 1970s have shown the importance of unstructured play in order for a child to develop problem-solving and language skills (as cited by Lehrer, 2009). Down time allows children to create their own solutions to situations they encounter. Daydreaming also has been shown to develop cognition, but to engage in daydreaming, children need to have periods without stimulation or activity (as cited by Lehrer, 2009).

Play has become such an integral part of a child's development that proponents have formed the International Play Association, promoting a child's right to play, with members in 50 countries. The IPA's 2007 report on play around the world did not have kind words for the United States. Because of the additional pressure put on schools to perform well on standardized tests by the No Child Left Behind Act of 2001, the IPA has found a marked decrease in recess and outdoor time for American children:

The Kindergarten curriculum is now more like first grade used to be. Some kindergarten classrooms have no blocks, dramatic play area, or puppets; and some experienced kindergarten teachers have noted decreases in children's imagination and the ability to organize their own play (IPA, 2009). In fact, extracurricular activities *outside* of the classroom, such as the boys and girls clubs, that were designed to mix play and academics have been shown to engender a deeper conceptual understanding of learning and development than structured time in class (Cole, 1997).

How do children learn best?

After the movement toward cognitive learning in the 1960s, researchers began developing theories of social learning in which knowledge is a product of the activity and the environmental setting in which it is acquired (Brown, Collins, & Dugid, 1989). Situated learning theory is a bridge between the cognitive and social practice theories. Lave and Wenger (1991) documented five examples of situated learning in which apprentices model behavior of their mentors and are gradually enculturated into the practice. Schools often remove children from real world practices and offer little opportunities for kids to engage in natural learning processes. Spending even more time inside a classroom would allow little time for children to interact with their environment and to learn informally from adult mentors in practices other than the teaching profession. Additionally, motivating children to stay in school and not drop out may be more difficult if they perceive school as a prison in which they are being kept for long hours at a time.

Teacher time, support and training

Finally, if children were to spend more hours in school, what time would be available for teachers to prepare for classes, grade papers and develop a community of practice among themselves? Research shows the need for teachers to have scheduled time away from the classroom that can be used for reflection, study and discussion with other teachers (Elmore, 1995). Longer school schedules would most likely reduce the ability for teachers to support each other and provide feedback.

Conclusion and Observations

History shows that the formula for how much time students spent in school originally was related to the growth of industry in the United States. As more adults spent more time in urban employment, more children spent more time in schools, a societal balancing driven by the

economy, not by a drive for better education. Attendance in school was not mandatory anywhere in the United States until the 1870s. While a current norm in the United States is at about 180 days, the positive relationship between days in school and student achievement has not been established in any body of research.

Recent data from the Organisation For Economic Co-Operation and Development, in fact, shows that the United States already has its students in school longer than anywhere else in the world. While American students routinely score lower than Finnish students on international tests of achievement, the Americans spend thousands of hours longer in school. Logic speaks that hours alone do not mean quality learning.

Before we invest too much time comparing United States test scores against those of top performer Finland, we should note the stark differences in the two cultures in population demographics and style of administering education. “In Finland, teachers are allowed to choose their own textbooks and customize their lesson plans. They aren’t required to administer standardized tests, and assign little homework” (Finland, 2008). The demographics of Finland play a major role in its measured student successes. “Unlike the United States, where great disparities in income and an extremely diverse population present obstacles to education, Finland enjoys one of the highest standards of living in the world, is largely homogeneous, and has a strong national culture” (Finland, 2008).

Clearly the majority of our educational priorities stem from social problems, from broken families, from unemployment, from illiteracy, from drug abuse, and in large part these are all identified predominantly in lower socio-economic groups – and the data show this again and again. The problems of low reading skills, of high dropout rates, or teen pregnancies are not ones that will be addressed, solved, relieved, eased, or erased with higher test scores on international or national tests. Punishing low performing schools with short-sighted measures such as No

Child Left Behind has done nothing to help our social problems, and if anything, has driven even more students away from education.

What exactly is the educational goal with any discussion to increase classroom hours to raise student achievement? Are we concerned as a nation that international test scores are higher than those of our students? It is clear that more time in a school building makes for better testers, not better thinkers, readers or problem solvers. If a higher *quality* of education is needed, then that should be the direction of the national discussion, not a discussion of more *quantity*.

What do we know about student satisfaction? It is clear that the current length of the school day is already too long for many. Does something need to change within the space of a school day? Are regimented schedules and teacher-centered, test-driven classrooms the answer for preventing drop outs? Are we more concerned with showing what kids do not know instead of what they do know? Are these kinds of classrooms the way to foster the love of reading and lifelong learning, for *supplying* the workers needed in our economy, a view held by many politicians?

If any conclusion is to be highlighted from the data we have presented in this paper, it is that increasing time in school for students is unrelated to student achievement, even when measured solely by inadequate tools such as standardized testing. More time in class is not what needs to happen. The quality of education is not linked to time in a room – it should more properly be seen as the enlightening experiences, conversations, exposure to quality material, and socializing a student goes through in the process of interacting with interested peers and creative, knowledgeable teachers.

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