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The Common Core: An Enhancement or Hindrance for the Youth of America?

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Claremont McKenna College

**The Common Core:
An Enhancement or Hindrance for the Youth of America?**

submitted to
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and
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Chapter 1: An International Comparison

School is one of the fundamental components of any child's life. Children spend seven hours a day, five days a week in a classroom for thirteen years. In total, the American education system has over 16,000 hours to shape the minds of the next generation of writers, scientists, and businessmen. Above all, because the United States is on the forefront of numerous industries and thus has the ability to influence the entire world, they should be conscious and purposeful in its strategy of how it develops its future leaders. However, it seems as though the United States as a country has not prioritized or perhaps just failed to establish an educational system in which they can maximize its youth's full potential. The country has attempted to universalize the education system through programs such as Common Core, an optional curriculum that states may adopt as a means of standards for public schools. However, before extrapolating the positive and negative ramifications of this particular program, it is important to identify other ways that the United States can improve its education system, and particularly compare its academic performance internationally to understand the issue in its entirety.

International Ranking

The United States is arguably one of the most powerful nations in the world economically, militarily and politically, but when evaluating how the country performs academically, its ranking is less than impressive in an international context. According to the Index of Cognitive Skills and Educational Attainment, the United States ranks as only

14 among many Asian and European countries (Index of cognitive skills and educational attainment, n.d.). This ranking uses qualitative and quantitative inputs such as government education-related expenditures, student-to-teacher ratios and school autonomy; outputs such as cognitive skills, educational attainment and labor market outcomes; and socioeconomic environment. The inputs evaluate education at all age levels, and the cognitive skills are based upon information processing assessments in reading, math, and science for grades 4 and 8. There are also literacy and graduation rates, which encompasses all grade levels to quantify educational attainment and labor outcomes.

Also, the Organization for Economic Cooperation and Development, a group that collects data for governments in an effort to support policies that enhance the economic and social well-being of people worldwide, found that the United States “scored far below average and better than only 2 of 12 other developed comparison countries, Italy and Spain” (Why Other Countries Teach Better, 2013). The survey evaluated adults and included questions that assessed literacy, numeracy and problem solving.

Lastly, when assessing math proficiency specifically, the Digest of Education Statistics, a federal group that analyzes public and private educational statistical data, provides some perspective on the matter. When 4th graders from 25 countries were compared internationally in mathematics, the United States was outperformed by 11 other countries. The United States scored 518 overall and Singapore scored the highest country out of all of the other countries with 594. These scores are a calculation of the averages of content areas such as measurement, geometry and data, and the average time students do math homework a week. By the end of the 12th grade, the problem only

worsens where the United States only scores better overall than 2 other countries out of 25. This demonstrates how children in the United States are behind, particularly in mathematics, and the issue only aggravates further as time goes on (International Comparisons of Education). These tests evaluate students comprehensively, because they vary in participant age and the skills and outcomes measured, and repeatedly, the results show how the United States performs poorly in education internationally.

Problems in the American Education System

Although the United States may be perceived as a powerhouse currently, the generation that will someday lead this nation lacks the skills necessary to maintain its competitive edge; while other countries in Europe and Asia continue to improve their academic programs the United States is actually falling in their rankings. So, the question remains: why is this the case? The failures of the United States are numerous, so it is useful to assess the various successful aspects of other education systems to identify what the United States may be lacking. Ultimately, the children of this nation simply are not performing up to par with their counterparts in other countries, and teacher training, unequal access to quality education, socioeconomic diversity, teacher feedback and pay can be attributed to that.

First, the teacher training in the United States is not as rigorous as it could be, and therefore the caliber of the teacher force is not as high as other countries. In Finland, teachers are required to hold master's degrees and even kindergarten and preschool teachers are required to have a bachelor's degree. Teachers are recruited from the top 25% of high school graduating classes, demonstrate high marks in a rigorous matriculation examination, and also possess superb interpersonal skills (Sahlberg, 2010).

Teaching is one of the most competitive positions for young people in Finland where in 2010 there were 6,600 prospective university positions to educate primary school teachers seeking employment for only 660 positions. In comparison, the majority of United States teaching positions do not require graduate degrees, and there is currently a teacher shortage, so it is not as desirable of a position (Why Other Countries Teach Better, 2013).

Another issue is the unequal access to quality education throughout the country. In the United States, 93% of all funding of public education comes from local property taxes so the quality of education that children receive in the United States is primarily dependent upon their zip code among all things (How Do We Fund Our Schools?, 2008). Because the bulk of funding that schools receive comes from property taxes, the wealthier the area children grow up in, the more likely they are to receive a higher quality education (Choose Your Parents Wisely, 2014). Therefore, there are vast differences between states and even districts with education. This translates to differences in resources, equipment and facilities in schools across the country. Ultimately, this creates a system where the most impoverished receive the least amount of support.

Again, interpreting this in an international context, Finland ensures that socioeconomic class is not the determinant of children's success, and the poor and rich all have access to high quality education (Why Other Countries Teach Better, 2013). In addition, Canada avoids the problem of unequal distribution of funding by using formulas to allocate money. These formulas are derived by assessing each district's size and needs to ensure that money is not concentrated in any one district (Why Other Countries Teach Better, 2013). Therefore, one solution to bettering the education system is having state

governments make it a priority to use money and resources based on state and district needs versus taxes, then performance in lower performing schools could improve and thus increase the overall ranking of the United States as a whole.

Consequently, because funds are appropriated based upon location, student populations in the United States are homogeneous where students that attend schools are from similar socioeconomic backgrounds. One model from Shanghai, China is to have students from various backgrounds and abilities attending the same institutions. In return, educators did not feel more compelled to work at one school versus another and resources were divided more evenly among schools. In addition, urban and rural schools began partnering to confer with one another about teaching techniques and strategies (Why Other Countries Teach Better, 2013). In all, students benefit from learning in diverse environments, because the high-achieving students can teach the lower-achieving students and the higher achievers will learn in the process as well through teaching. Students benefit from this model through learning from each other, and there is no bias toward what schools to work for, because the resources and caliber of teachers should be comparable to each other.

In addition, another thing that is lacking in America is a system in which teachers receive feedback on their performance to identify areas of improvement. Again in China, teachers in all grade levels are required to test run their lesson plans in front of other teachers before presenting the material to their students. In China, teachers specialize in a subject, and instruct 40-minute classes several times a day, and the remainder of time is devoted to preparation in a shared office setting to encourage collaboration. Feedback provides opportunities to identify better ways to teach the content so that by the time the

lesson reaches the student, it has already been through trials of critique. Additionally, this creates a sense of accountability and competitiveness among educators so that everyone is aware of what others are doing, and they can always strive to do better (Pine, 2012). In the United States, although some teachers may confer with one another about lesson planning, there is no universal or mandatory system of collaboration. Also, even if teachers did seek feedback, the majority of the time it would need to be on their own time since there are fewer breaks in the school day in the United States. Therefore, this is another fault in the United States' education system where students are limited to just one teacher's perspective, which could be improved through receiving more critique by other colleagues.

Another difference between the United States and other countries that perform better is the amount that teachers are paid. The top paid teachers globally are Luxembourg, Switzerland, Germany, Korea and Japan, all of which are ranked higher than the United States academically (World of Education: Teacher Salaries, 2015). Salaries are not a strong motivator for individuals to become educators in the United States. Income is important because if a job is more lucrative then people will challenge themselves to obtain the job, thus making it a more competitive and intelligent pool of applicants. Some would even argue that, "Teaching has never been able to attract the best and brightest, and it's very obvious why...those with options are going to often choose more respected, better paid lines of work" (Ehrenfreund, 2015). While this statement is somewhat alarming and in no way a generalization of all American teachers, the reality is that the profession of being a teacher is not as valued in America. This results in a teaching force that have statistically lower test scores and GPAs compared to

other majors, and these are the individuals that are directly shaping all American children.

Education in America differs from other nations and may benefit from modeling some of these foreign practices. Although there are many improvements that the country could make as mentioned previously, curriculum could be one of the sources of inadequacy in the education system and is often what receives the most attention. Therefore, the subsequent sections will explore the United States' major attempt in improving education through creating consistency through the Common Core curriculum. In all, if the United States seeks to maintain its power in various sectors, it must strengthen its education system to ensure success.

Chapter 2: Education in the United States

History

Since the founding of the United States, education has been always been valued. In 1635 the Boston Latin School was created, and in 1636 the first higher education institution, Harvard University, was founded. By 1647, the Massachusetts Bay Colony General Court required that an elementary school be built for every town with 50 families and a Latin school for every 100 in order to advance the Puritan culture through formal education. Over the next 180 years schools were built to educate mostly the boys of the wealthy class, and in 1827 Massachusetts made all grades for all schools free to children who were not African American (Historical Timeline of Public Education in the US, 2006).

In terms of structure, schools used a mixed-aged model so that older students could teach the younger ones, and each school differed in their curriculum. However, in 1837 Horace Mann introduced the concept of standardizing curriculum to assure that regardless of location, students would receive a comparable education. In addition, in 1848 Horace Mann also adapted a Prussian model and organized students based upon their age so that the curricular content would be specific to the grade level. In 1852, attendance laws for primary school were implemented and by 1918 all existing states at the time made school attendance mandatory. In 1862, federal funding became available to incentivize the progression of the technical agricultural and engineering sciences fields. In 1890, federal funding was extended to support Black colleges as well.

Secondary school attendance generated attention and in 1920, 30% of American adolescents ages 14 to 17 received at least some high school (American Public Education: An Origin Story, 2013).

In 1954, the Supreme Court ruling in *Brown v. Board of Education* desegregated schools so that students of all racial backgrounds were able to attend the same public schools. Previously, schools with African American students had poorer facilities, limited and outdated resources, and there were not enough teachers in proportion to the classroom sizes. Although schools are desegregated today, some of these ramifications still exist where schools have limited amount of diversity and resources depending on where they are located as described in the previous chapter. In the 1960s, President Lyndon Johnson devoted federal funds to school districts, which was not previously done (American Public Education: An Origin Story, 2013). In all, the United States' education system has developed tremendously since its inception in terms of structure, equality in student populations, and curriculum, and it is still progressing to this day.

United States' Education Today

The United States uses a decentralized form of education where all states are responsible for creating the standards and expectations for public schools from kindergarten through the 12th grade. Schools are divided into three parts, elementary (grades K-5 or 6), middle or junior high school (grades 6 or 7-8) and high school (grades 9-12). Although the majority of public schools are divided into these three parts, there are also other schools that can be K-8 or K-12. The main difference in the grade division is that when students are in elementary school they have one teacher that teaches all of the major subjects, and from middle school and beyond teachers specialize in specific

subjects, and students rotate to the different classes throughout the day. The average class size varies depending on state and region, but according to the National Education Association, an employee network for education professionals, in 2013 the State of California had the highest average class size in public elementary and secondary averages at 24.9, followed by Oregon with 21.8 and Utah with 21.6 (Rankings of the States 2013 and Estimates of School Statistics 2014, 2014). Alternatives to the public education system are charter schools which still receive some public funding but are also privately funded (and in most cases attendance is free to students), private schools which are completely funded through tuition and the institution, and homeschooling where parents or another adult teaches the student from home. Therefore, although on a national level there can be curriculum, structure and funding recommendations, for the most part each state tailors the requirements to its respective population (“Structure of U.S. Education,” n.d.).

Due to the minimal amount of influence the United States’ Department of Education has on schools, students, and teachers many politicians have even advocated for the elimination of the department entirely. Only 10% of funding in education comes from the federal level, therefore this shows how minor the federal role is when it comes to educating its youngest citizens. However, the department remains in existence to maintain a sense of accountability to states and also to protect low-income, minority and children with disabilities, which oftentimes becomes problematic when there is no state accountability (Bruni, 2015).

Specifically, the United States Department of Education has 6 main initiatives: No Child Left Behind Act, Family Educational Rights and Privacy Act (FERPA), Individuals

with Disabilities Education Act (IDEA), the Workforce Innovation and Opportunities Act, and the Higher Education Act. The No Child Left Behind Act protects low-income students through increasing accountability through targeted populations by testing all students in grades 3-8 and dividing the results into demographics of poverty, race, ethnicity, disability, and limited English proficiency. The groups that perform lowest are targeted accordingly to improve. In addition, funds are allocated to additional educational services to schools and parents as well as transportation to higher performing schools if low-income students are dissatisfied with their local school (Archived: Executive Summary of the No Child Left Behind Act of 2001, 2004). FERPA is created to ensure the privacy of student records so that parents have access to their children's records until they are 18 at which point the information becomes available exclusively to the student (Family Educational Rights and Privacy Act (FERPA), 2015). IDEA ensures the protection of children with disabilities by providing them with an education and in the general education classroom when possible, preventing discrimination and giving parents the opportunity to participate in decisions in school when they relate to their child (Center for Parent Information and Resources, 2014). The Workforce Innovation and Opportunities Act provides more opportunities between education, work and career preparation. The Higher Education Act requires institutions of higher education to provide net calculators with tuition costs. Lastly, civil rights are protected through having school policies that specifically address civil rights issues (Laws & Guidance, n.d.). Therefore, although states have most of the power in controlling education, a national foundation is in existence to provide support in areas that might not be fully or clearly addressed by state programs.

Case of California

Because each state does vary, this paper focuses on the California education system as a case study although there will be periodic references to other states to exemplify different aspects of the Common Core curriculum. California as a state is complex because of its large and diverse population. In the 2014-2015 school year the California Department of Education reported having a total of 10,366 schools, 1,022 school districts and 6,235,520 students. From this total, 54% of students were Hispanic, overwhelmingly the greatest ethnic group represented, followed by 25% White (not Hispanic), 9% Asian and 6% African American (Fingertip Facts on Education in California – CalEdFacts, 2015). Among the numerous school districts in the United States, Los Angeles Unified School District (LAUSD) is the second largest school district in the nation. LAUSD is comprised of 640,000 students in grades kindergarten through 12th grade, over 900 schools, and 187 public charter schools (Los Angeles Unified School District, n.d.). This diversity shows that California is tailoring to children from a wide variety of backgrounds and a remarkably large population as well.

From 1997-2013, California used the Standardized Testing and Reporting (STAR) program to evaluate students in grades 2-11 at the end of the school year in a standardized “STAR Test.” Later, the state determined that 2nd graders were too young to be tested, but they continued to test students in grades 3-11. The STAR program was comprised of four components: the California Standards Tests (CST), California Alternate Performance Assessment (CAPA), California Modified Assessment (CMA) and Standards-based Tests in Spanish (STS). The CST was an annual test that corresponded to each grade’s content in English Language Arts (ELA), math, science and

history/social science. The CAPA and CMA tests served as exams that are alternative to components to the CST in the areas of ELA, math and science for those that have an individualized education program (IEP), which qualifies them as having some sort of cognitive disability. The STS is an exam that is provided for students that need the content of the exams in Spanish, because they have been in the United States for less than 12 months (CalEdFacts: Standardized Testing and Reporting, 2015). Therefore, all students must participate in these exams even if they are English language learners or if they have disabilities. All students in grades 3-11 were tested in ELA and grades 3-7 in math and then divided into the specific disciplines of geometry, algebra and algebra II. History/social science was tested in grades 6-8, and 11, and there was also a world history-social science exam offered for students taking that course. Lastly, science was required in grades 5, 8 and 10 and whenever students took biology, chemistry, earth science and physics which was normally sometime in high school (CST Released Test Questions, 2015). Because each test contains several components and multiple tests must be administered each school year, students could take 8-13 hours of testing depending on the grade for any given year. The tests were evaluated into a categorical scale of advanced, proficient, basic, below basic, and far below basic and scales that were based on percentages of amount answered correctly. Overall, this created a standardized way to evaluate all Californian students in grades 3 and above in all of the main academic subjects.

As of July 2013, the state adopted a new program called the California Assessment of Student Performance and Progress (CAASPP) system in an effort to create a tool that assessed more analytical thinking, problem solving and communication skills

(Standardized Testing and Reporting (STAR), 2015). The new CAASPP program still uses assessments as a means of evaluation, but it uses “smarter balanced assessments” that are in line with Common Core standards in English and mathematics. More specifically, these smarter and more balanced assessments come in the form of online tests. Although teachers are not required to administer these, they are a part of the “digital library” that they may use as a resource as well as alternative assessments.

Lastly, students are required to take science assessments in grades 5, 8 and 10 and there is an optional Spanish assessment format as well for language arts. In summary, this new CAASPP system intends to evaluate students on a more holistic and comprehensive level (California Assessment of Student Performance and Progress (CAASPP) System, 2015).

In addition to annual standardized tests, every high school student in California is required to pass the California High School Exit Examination (CAHSEE) to leave high school, which includes content in reading, writing and math (California High School Exit Examination (CAHSEE), 2015). Altogether, the CAASPP and CAHSEE are the state-mandated measures that evaluate students, and it is the responsibility of schools and school districts to assure that their students are adequately prepared to excel at these assessments.

Testing Costs and Benefits

Although testing is one of the main means to evaluating the proficiency in which a student understands course content, it is important to recognize that there are both costs and benefits to having such an evaluative system. First, the main benefits of testing is that it is a standardized and objective way to assess students, and schools, districts and state departments of education can use the scores to determine next steps in targeted

areas. Methods of evaluation such as interviews, teacher ratings and GPA are susceptible to subjectivity, and therefore an objective and standardized way to measure student performance ensures greater fairness. For example, college admissions can use GPA as a future indicator for how the student will perform at their institution but grades vary greatly depending on the high school and may be inflated. Therefore, since every prospective student takes the same exam, something like the SAT may be a more fair measure of performance, because it provides an objective comparison (Warne, Yoon, & Price, 2014). In addition, this objective evaluation also allows educators to assess the specific areas that need improvement. For example, if a school's population performs proficiently in ELA but basic in mathematics, then this indicates to teachers that they should devote more time to strengthening their math curriculum. Also, within subjects assessments can identify particular concepts that students have or have not mastered and review those errors with students. Altogether, testing provides an objective overview of student performance, and it can help schools realize what they need to improve upon.

Criticisms of standardized tests include high stakes for teachers and principals, focus on scores and grades, teaching to the test and cultural test biases. Commonly, schools are assessed based on their academic performance on state-administered exams and therefore an immense amount of pressure is placed on teachers to prepare students, and also on principals to motivate teachers. Also, additional funding such as the No Child Left Behind Act distributes money based upon improved performance on standardized testing, thus creating a culture where stakes are very high for teachers, schools and school districts. This also enables schools to focus on students as a whole instead of addressing individual needs of children as students (William, 2010). As a

result, this pressure has teachers begin to “teach to the test” where their main focus becomes centered on achieving high scores versus the learning process. Additionally, although having scores available can help schools identify areas of improvement, teachers and principals are pressured immensely to improve their ranking. The scores might not always be something that is in their control and therefore it can be difficult to respond accordingly. Teaching to the test creates an environment in which students are not learning for the sake of learning but performing only in an effort to get a certain score on a test. *Standardized Minds*, a book that analyzes the effects of testing by acclaimed author and economist Peter Sacks (1999), describes how,

especially in the grade school arena K-12, one finds evidence that traditional tests reinforce passive, rote learning of facts and formulas, quite contrary to the active critical thinking skills many educators now believe schools should be encouraging (p. 9).

This demonstrates how teaching to the test focuses on memorization, which actually may not require a lot of consciousness and therefore hinders critical thinking skills. In addition, the content in these tests themselves usually takes the form of short multiple-choice answers. Standardized testing limits what it means to master a concept, because it does not offer students the opportunity to demonstrate their knowledge in other forms such as writing, speaking and constructing.

One of the last criticisms of standardized tests is that they are biased toward Euro-Americans, who as a result tend to perform better than other ethnic minority groups. Pamela Hays, a psychologist, describes how there are four solutions to combatting cultural testing bias: restandardization, including more cultural values, use an index

correction for culture, and use more dynamic evaluative measures (2001). First, restandardization is when social norms are collected in an effort to restructure the exam so that they are more encompassing of all cultures. The second recommendation is to create new tests altogether, keeping in mind the values of minority cultures. Thirdly, an index correction for culture evaluates an individual with the others taking the test and the greater the difference the greater their score on the test. Lastly, tests can become more dynamic if they are accompanied with interviews, observations, reports and culture-specific tests (Hays, 2001). In all, these kinds of solutions can help in addressing the current Euro-American bias in testing. In conclusion, while testing can benefit schools by providing an objective evaluation, ultimately there are many problems to take into consideration when determining the best way to assess learning.

To this day, the United States' education system is still evolving. Each state is responsible for creating their own standards and curriculum, although there are some government initiatives to assure that all children receive access to quality education. Because of the variations among states, there are wide-ranging performance levels among students across the nation. A more universal system would be appealing, because it would not only create consistency among states, but would allow the opportunity to set higher standards to improve the United States' ranking internationally with education. Specifically, the Common Core, the most recent proposal for education reform, is a universal curriculum that states have the option to utilize. Therefore, it will be interesting to assess the Common Core's successfulness and receptiveness among American students, and the ways it has affected the quality of education.

Chapter 3: The Common Core Curriculum

The United States has a deeply rooted history in education, and today as the country begins to fall behind other countries, improvement to the educational system has become a vital and pressing issue. Solutions to reform education in the United States have come in various forms, and one source of distress is the inconsistencies and differences among each state and territory education system. Thus, the creation of a more universal and standardized curriculum would be very appealing. These tensions created an ideal foundational ground for governors and educational figures to come together to propose, design and implement the Common Core curriculum, an optional program that intends to revitalize and advance the education system in most if not all parts of the United States.

Development

Educational policy reform is a comprehensive process where issues occurring in the classroom must be translated and communicated to schools, districts and states before even being recognized on a federal government level, which would then allow for policy change. Therefore, it is a process that involves not only educators but also politicians, so conversations about change must be conducted in impartial and methodical ways in order to remain consistent with what is best for children and their quality of education versus imposing ill informed policies that may not necessarily be the best policies. Each year, the Council of Chief State School Officers (CCSSO) holds an Annual Policy Forum, which provides opportunities to discuss the best ways to develop education to take place.

The CCSSO is a national, nonprofit and nonpartisan organization made up of department heads in both elementary and secondary education that communicate their perspectives to civic, professional, governmental and general public forums. This allows for a group that is committed to building the United States education system to communicate their opinions and concerns in a formal manner. At the Annual Policy Forum held in Columbus, Ohio in 2007, there was a call to action by the state chiefs to have a more standardized means of evaluation for students in grades K-12 in the United States. After this initial discussion, the CCSSO partnered with the National Governors Association (NGA) and Achieve, Inc. to create a more formal proposal to universalize the American education system, and in 2008 they released “Benchmarking for Success: Ensuring U.S. Students Receive a World-Class Education,” which outlines the steps to creating a common core curriculum by using international benchmarks for ELA and mathematics. The NGA is comprised of United States’ governors who represent states in congress on issues and also assist in policy development when they are summoned to help. Because education is influenced primarily by states, having governor participation was imperative in mobilizing policy change. Achieve Inc. was formed by governors and business leaders and now works as a nonprofit and nonpartisan organization that raises state education standards, assessments, and accountability to improve education. Together, these three groups used “Benchmarking for Success” to first address the fact that education reform is necessary and crucial at this point in time and then introduce a solution to solve the problem.

First, the term “benchmarking” as used in the title and numerous times throughout the document, is not meant to be a comparison to other nations, but rather acknowledges

systems that are more successful. So despite constant references to other countries, it is important to note that the tone is not meant to evoke competition as much as collaboration in adopting the most successful strategies. The outside country references begin in the need for action section, which has four parts concerning the global economy, economic growth, education equity and international educational ranking comparison. First, the global economy is described as “skills-driven” where technology is increasingly taking over mundane tasks and labor is outsourced to other nations, thus making the role of domestic peoples different than it was historically. Education should adapt accordingly by providing children with problem solving, math, science and reading skills that a computer can certainly not accomplish. Along these same lines, the second point is that education must be improved, because economic growth is most likely to occur in specialized fields, particularly in math and science. If citizens are unable to continue to contribute to innovation and advancements then the United States will fall behind economically. As a result, the last two concerns are that the United States is behind other nations academically, and there are great differences in achievement among different ethnic groups in the country as well. Therefore, it is critical that the United States not only improves in ranking, but also that it is applied similarly in all parts of the country.

These pressing issues were addressed through a five-part education reformation plan. The first action is to improve current state standards through implementing the common core standards that are based on the international benchmarked standards. Suggestions for change included covering fewer topics so teachers could focus and go really in depth, making the topics they focus on more rigorous, particularly in math and science, and having coherence to subjects and topics covered within subjects to be more

fluid and natural progressions versus a list of standards. The second action is to design all textbooks, digital media, curriculum and assessments to also follow the standards of the common core so that they have a high benchmark as well. Specifically, educational standards should be narrowly focused where there are fewer but more challenging topics. Many nations have been successful with this approach such as Singapore with math. The third action is political where state policies should be modified to support teachers and other school officials. This means that teacher recruitment should be more strenuous where they are selected among the top percentage of college graduating classes, and training both before and throughout one's teaching career should be supported. The fourth action is to have a system of accountability for schools to assure that they are upholding standards. This can take multiple forms, but the two proposed are to have external evaluations where an outside group evaluates performance and self-evaluations where schools and districts themselves reflect on progress. In addition, the evaluations should be designed to identify areas of underperformance so that solutions can be made specifically to whatever issues arise. Lastly, the fifth action assesses student performance in an internationally comparative manner to ensure that students are performing up to par with other countries ("Preparing America's students for success"). This creates a culture where states are no longer competing against other states in academic performance; rather it creates a unified system where students from all states are accountable for the same content, and then they are motivated and compared to other countries' academic performance. Overall, when considering these actions, it is important to note that these actions are designed in an effort to advance the United States' position globally in

education and ultimately create a society that is both academically and economically competitive.

Because “Benchmarking for Success” emphasizes the importance of education reform in today’s globalized society and only outlines the action steps for change, in 2009 the propositions were executed formally. In April, the NGA and CCSSO worked with governors, people in educational policy and state school officials to begin creating the Common Core standards. The Common Core standards were developed with the original three groups that drafted the “Benchmarking for Success: Ensuring U.S. Students Receive a World-Class Education,” the NGA, CCSSO and Achieve, Inc. and also added the ACT and College Board to assist in the curriculum development process. The ACT is the nationally recognized test that college admissions use during the application process to assess student aptitude in the areas of English, math, reading, science and writing. With the exception to the writing section, the ACT is a multiple choice format with approximately 215 questions to assess students in the span of a three and a half hour time period (What is the ACT?, 2015). The College Board is a nonprofit group that administers the SAT, an alternative to the ACT college entrance exam, and Advanced Placement programs and exams for high school students. In addition, the College Board also conducts research and advocacy for students, educators and schools, especially in financial aid for college, so that higher education could be accessible to all students (About Us, 2013). Although governors and nonprofit organizations initiated the Common Core movement, it is important to note that two of the biggest testing agencies started to play a role when the standards were being created.

By May 2009, the standards of what high school students must learn were established, and the first round of feedback was conducted to evaluate the college and career readiness expectations. In addition, throughout the summer there were further feedback sessions to assess the K-12 standards that were developed. The sessions included collaboration with representatives from state departments of education, universities, and testing agencies as well as teachers from various states. The public concerns about the Common Core included being wary of using a fair evaluation system and improving teacher training so that they can adequately apply the Common Core standards. Although these issues were raised, because the feedback session was devoted to evaluating the standards themselves, they were deemed a unique topic and not directly addressed. Another apprehension about the Common Core was the overemphasis on standards versus developing students, which may create a system that feeds into a bureaucracy versus individual development. The last major concern was about the development process itself where some believed that the process was too closed and opaque where more teachers should have been involved and the testing agencies' role could create conflicts of interest (Summary of Public Feedback on the Draft College- and Career- Readiness Standards for English-Language Arts and Mathematics, 2009).

In terms of the content itself, respondents recommended that some of the standards be expanded upon, because they were lacking some components to the concepts. Also, there was criticism that the language arts standards were too focused on career preparation concepts and did not include required readings that have the potential to expand children's minds. For math, the main concerns were that the standards extend beyond what should be expected of a high school student to understand, the language and

examples used were imprecise and unclear and sometimes the content was inconsistent with what was discussed in previous areas (Summary of Public Feedback on the Draft College- and Career- Readiness Standards for English-Language Arts and Mathematics, 2009).

By December 2009, the standards were finalized with the edits taken into account from the feedback sessions and by February 2010, the final standards were released to states where they were then given the opportunity to provide critiques as well. This round of feedback took the form of an online survey with 10,000 participants where 48% were teachers, 20% were parents, 6% were school administrators, 5% were post secondary faculty or researchers and the remainder were students or other. Overall, respondents believed having a standardized curriculum was a good idea, but the main concerns were that the wording was hard to understand, and there were a lack of examples and details for how to execute standards. Some criticized that there were too many standards, and they only pertained to ELA and math, which completely disregards history, science, health and artistic subjects as their own respective fields. In addition, many felt as though the standards were impractical and inappropriate for the age group they corresponded to. Also, because the standards were universal, special education students, English language learners, and gifted and talented students were not addressed in having supplemental resources to supplement their education. In general, the feedback was positive, but there were some areas that respondents felt could be refined (Reactions to the March 2010 Draft Common Core State Standards, 2009).

In June 2010, the CCSSO and NGA approved the final Common Core standards and agreed that they executed their original vision. The standards prepare students to

enter college or a career after completing high school with the new parameters for ELA and math. At this point, the Common Core writers believed that the standards were now easy to understand in their meaning and detail. The process of developing the standards themselves used research and was methodologically sound. In all, the standards were analogous with other top countries and considered a strong foundation for states to use a more universal system that could later use standard-based assessments too (Development Process, 2015).

Standards

The standards included in the Common Core are ELA and mathematics although science, history and technical subjects are integrated into ELA for grades 6-12. The curriculum is designed in a way to prepare students for college and career readiness so they are content driven but also very much based on skills that students can apply outside of the classroom. The standards are all grade specific and focused on what student outcome and learning should be versus the approach to grasping the concept.

The ELA curriculum is comprised of reading, writing, speaking, listening and language. Reading is divided into four subcategories: ideas and details, craft and structure, integration of knowledge and ideas, and range of reading. Ideas and details are the concrete concepts that students should master by the end of the year. Craft and structure has to do more with the way in which information is presented such as interpreting concepts, being conscious of fluidity and organization and understanding significance of words and ideas. Integration of knowledge is the application of learning in different formats. Range of reading is the student's level of proficiency in relation to their grade level.

Another category within reading for grades K-5 is foundational skills, which are the physical act of writing, the verbal pronunciation and recognition of words and understanding the overall significance of texts. For writing, there are several subcategories including writing for a specific purpose and genre, and using a range of writing that appeals to different audiences and forums. It also includes more developmental factors such as being organized and clear, and having evidence and research that support the claims being proposed. Speaking and listening pertains to comprehending and contributing to conversations and presenting one's own arguments in an effective manner. Language relates to using correct grammar when talking or writing. It also includes the choice of style where the type of language changes in different contexts and situations. Each of these parts of ELA have grade level standards that correspond with them, and there are recommended readings across grade levels that include different genres such as stories, dramas, poetry, and nonfictional history, scientific and technical texts.

In addition to the ELA regular standards in reading, writing, speaking, listening and language, literacy in history/social studies, science and technical subjects are added in grades 6-12 also. These subjects' standards still incorporate the four broad categories of key ideas and details, craft and structure, integration of knowledge and ideas, and range of reading so the same overarching standards for reading and writing are used when evaluating these disciplines as well (Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects, 2010).

The Common Core for mathematics is organized into three parts. Standards are smaller ideas that students should master, a domain is a collection of related standards,

and a cluster is a larger group of related standards. Again, all of the standards are designed to be grade-level appropriate and the approach to learning is multifaceted. With math, there are several goals for how to master the information. First, students must understand what problems are asking conceptually and be able to execute the problem abstractly and also quantitatively (i.e., represent ideas using symbols and numbers). Next, students should be able to understand the reasoning of their peers to verify and/or correct solutions. In addition, students should always practice how to model situations with math, use mathematical tools and resources, and use precision in their calculations. Lastly, especially in upper level math, standards include identifying patterns in manipulating mathematical structures to reorganize equations in different but equal ways and repeated reasoning to apply concepts in similarly structured problems. Each grade level applies these concepts to the specific areas of focus such as number sense, algebra and geometry and the standards, domains and clusters are outlined clearly with what concepts should be mastered by the end of the school year (Common Core State Standards for Mathematics, 2010). Altogether, these standards are meant to serve as the universal system for states to adopt that makes the United States' education system economically competitive.

Adoption

In September of 2009, 48 states, Washington D.C. and two territories joined the Common Core State Standards Initiative. Joining the initiative committed governors and state commissioners of education to adopting the common core standards in ELA and math for public schools in grades K-12 despite the fact that the standards were not yet

complete. In mid-2010, the final Common Core standards were released, and states had the freedom to adapt and change the standards as they saw fit.

The state of California adopted the Common Core curriculum slightly later than other states in 2012. Although they technically adopted the standards in August 2010, actually implementing them was a longer process that came in three parts. First, in November 2010, the Common Core State Standards (CCSS) implementation plan was first proposed in the awareness phase that informed people about the basic parts of the program. Then, in July 2011 regular meetings began to take place for the transitional phase where resources, assessments, professional development and stakeholders adjusted accordingly to accommodate for the new program (CCSS Systems Implementation Guide, 2015). Finally, the implementation phase began in January 2013 where the State Board of Education reviewed and approved the implantation plan, which included several additions to the Common Core to acclimate to California's population. For example, materials needed to be available to parents in English, Chinese (both traditional and simplified), Hmong, Tagalog, Spanish and Vietnamese so that they may become familiarized with the Common Core program. In addition, professional learning modules were created for educators so that they could learn about the Common Core curriculum in both ELA and math, and instructional resources and assessments were provided to supplement the newly adopted standards. Lastly, business, educational and stakeholders were informed about what the Common Core program entailed to clarify any misunderstandings that may have existed (California State Board of Education Meeting Agenda Items, 2013). While the process of developing the Common Core standards was

quite extensive, the following section will assess specific grade level standards and reveal how effective and reasonable they are for the given age group.

Chapter 4: The Psychology of the Child's Mind

Although the Common Core standards were developed by government officials, nonprofit organizations and testing agencies, and reviewed by various educators, school officials and parents, psychology was not specifically taken into consideration in the development phase. Jean Piaget, one of the most reputable developmental psychologists of all time, outlines the stages of cognitive development, which aids in the process of deeming what is age-appropriate for a child to understand according to their cognitive ability. These stages occur chronologically where a child must master the skills in one stage before progressing to the next, which occurs in a gradual process. Also, although there are four stages with corresponding age ranges, each child is distinct and may master a stage before or after what Piaget suggests, and not all reach the final stage even into adulthood.

The first stage does not involve school-aged children but, for reference, the first sensorimotor stage occurs when a child is between the ages 0 to 2 where infants act upon their environment to gain knowledge about the world. This includes actions such as reflexes, repeating actions that provide them with a desirable outcome, and combining actions to solve problems that arise. Overall, infants are primarily action-oriented and are unable to accomplish complex actions or behaviors (Shaffer & Kipp, 2013).

The last three stages of Piaget's cognitive development are of particular interest, because they contain the years that children attend school. The preoperational stage takes place when children are ages 2 to 7, which includes children in kindergarten through the

second grade. In this stage, children begin to think symbolically, but do not necessarily practice cognitive operations. Symbolic functioning entails that a child can recognize that a word or an image can evoke the idea of an actual object or experience (Shaffer & Kipp, 2013). In the school setting, this is especially imperative for student learning, because it gives children the ability to read, and ultimately learn about topics without having the actual objects always in front of them. In addition, children in this stage think egocentrically where they are somewhat limited in their ability to think about something from another person's perspective, and believe that others possess the same knowledge as them. They are also limited in their capacity to determine causality where they can only occasionally determine why one thing must have caused the other. In addition, preoperational children perceive problems differently where they may focus on specific aspects of a situation instead of considering multiple perspectives that lead to a solution. Lastly, it is challenging for children in this stage to remember how an object or situation used to be once it has been changed, understand conservation, group items into smaller subgroups and order measurements such as height and length.

After taking the characteristics of the preoperational child into consideration, it is now fitting to compare it to the Common Core standards. For example, the grade 1 ELA reading standards for both literature and information-based texts require that students be able to compare and contrast characters and information. In particular, the standards for informational texts suggest that students make comparisons between illustrations, descriptions and procedures if subjects from different texts are similar. Although some students may be capable of making such connections, it is unreasonable to expect all first graders to think about concepts that extend beyond the realm of the text they are currently

studying. This is due to the preoperational child's tendency to have a limited perspective by being egocentric, only being able to see things from their perspective, and failing to recognize the various aspects of an issue. Also, writing presents challenges in the first grade, because the Common Core standards have students write original pieces based on a topic. Because children mostly imitate at this stage it can be very challenging for them to create original ideas of their own (Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects, 2010).

Mathematics standards can be difficult to achieve as well, particularly with measurement and data. The standards require kindergarten students to measure things such as height and weight and compare them to other objects, and first grade students to order more than two objects including using one of the objects as a reference point to measure the other (Common Core State Standards for Mathematics, 2010). This is also something that the typical preoperational child is unable to comprehend; therefore it is unfair to expect them to make these comparisons.

The third stage in Piaget's theory is concrete operational, which takes place when children are ages 7 to 11, which includes grades 2 through 6. In this stage, many of the problems present in the preoperational child are refined. For example, children are now able to better understand another person's perspective and take into consideration the different components of a situation when solving problems. They also begin to recognize how an action can cause an outcome and make before and after comparisons when something has changed (Shaffer & Kipp, 2013). Overall, the concrete operational child starts to rely on logic when perceiving the world, which enables them to deduct more

reasonably than before, but they can only apply it to physical objects. For example, children begin to understand the concept of conservation where redistributing matter does not affect the original quantity even though the appearance may be different. This also applies with the quantity of items where if items are rearranged closely or far apart the amount still stays the same. The Common Core standards are more aligned during this stage, because children are asked to make comparisons, but now they have the cognitive ability to do so in both ELA and mathematics. However, one main critique is that students as early as age 7 in grade 2 are asked to participate in scientific and research projects. Then, they are expected to draw conclusions, which become progressively more complex with each subsequent grade. Although children are able to think more logically during this stage, because every child develops at a different rate some may not be able to be successful participants in these activities. The operative word is “concrete” in concrete operational, therefore it is fair to have children understand a physical phenomenon but hypothesizing and abstract thinking may be too advanced.

Lastly, the formal operational stage begins when a child is 11 to 12 years old, beginning around the 6th grade, and continues to develop throughout the rest of their life. Formal operations can now be performed where children not only think logically but also systematically and abstractly about concepts. This involves hypothesizing scenarios that have not occurred, so mathematics, for example, extends beyond basic arithmetic and now algebraic word problems can be solved. Formal operations can also apply to the sciences where students can test their hypotheses through experimentation to prove or disprove their original thinking. Another major component to the formal operational

stage is a child's tendency to question everything and identify discrepancies in the world (Shaffer & Kipp, 2013).

The Common Core standards for the concrete and formal operational children seem more reasonable when comparing them to Piaget's stages of cognitive development. ELA is a continuation of reading comprehension where students are asked to summarize, and draw connections, inferences and conclusions about texts. In mathematics, children are not asked to deal with abstract principles until the formal operational stage, which is an appropriate expectation for their development. However, not every individual reaches the formal operational stage, therefore some students may actually experience great difficulty if asked to explain concepts that are too abstract for their cognitive abilities. Children's minds develop incrementally and only time can provide them with the ability to master the standards set forth in the Common Core. If the standards continue to exist as they are and are not consistent with the appropriate developmental level of children, it will create a perpetual cycle of failure in these early grades.

In addition to Piaget's cognitive stages of development, other considerations that help children grow cognitively are sociocultural factors. Lev Vygotsky, another renowned developmental psychologist, provides the foundation for these concepts with his sociocultural theory, which explains that children learn best from social interactions. These social interactions include the zone of proximal development, scaffolding and guided participation. The zone of proximal development involves an activity that is too difficult for a child to accomplish on his or her own, but with the help of someone more knowledgeable, such as a teacher or a classmate, it is possible. Scaffolding is when the answer is not given to a child directly, but they are rather led to the answer in an effort to

increase knowledge. Guided participation is when the child partakes in or observes an activity in order to learn more about it. Lastly, sociocultural theory warns that children do not learn well with context-independent learning, which is learning for the sake of learning without connecting it to some greater concept or idea (Shaffer & Kipp, 2013). Given this information, Vygotsky's principles will demonstrate how encouraging students to be active in the learning process, having them work with others, participating in meaningful activities, and emphasizing retention of information more than memorization is best for learning.

First, children learn a tremendous amount when they are actively participating in the creation of knowledge. In particular, it is more useful for children to learn a lesson through coming up with answers with the help of a teacher instead of just being told the answer. This requires students to think critically about the questions they are presented, and also struggle so that the lessons may become more concrete in their minds when they do come to a conclusion. Another form of active learning is through listening to the opinions of peers. A final way students can be encouraged to be active learners is if they are given the opportunity to propose goals and ideas for what they can learn. This increases a child's interest in the subject, because if they have an objective that they created then they will be more invested in achieving what they set out to accomplish (Vosniadou, 2003).

However, the Common Core standards do not focus on the way that children learn at all, and it is simply a list of expectations. While it is important to identify the benchmarks that children should be reaching, it would also be beneficial to have a format of how to implement them. In relation to active learning, there are allusions to teacher-

student participation, but there is no emphasis on scaffolding, having teachers lead children to the answer, versus just telling them. In particular, the language used is “with guidance and support of adults...” and proceeds to list the requirement (Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects, 2010). However, optimal learning can occur if active participation is facilitated, so there should be an emphasis on the way information is presented. In terms of listening to classmate input there are several examples of this such as summarizing, posing questions and drawing conclusions of literary materials. Lastly, although there are some standards that allow students to be involved in creating the overall classroom goals, there are no requirements for having students set academic ones. Active learning argues that students would benefit most if they were able to work with the teacher to create specific and targeted goals of various content areas. In terms of mathematics, because there is only a focus on standards and not on the method of teaching, there are no references to active learning. Mathematics as a subject area could benefit from active listening where teachers can guide versus tell students how to arrive at a solution, students can work with one another to draw conclusions and, again, students can help teachers to make academic goals together. Overall, the strongest element of active listening is group discussion, but it is only limited to ELA, and the Common Core standards can greatly improve if there were more parameters for guided learning and collaborative creation of academic goals.

In addition to active learning, group learning as a category specifically is also beneficial for students, because they are able to learn social skills and learn from their peers. Group projects allow collaborative opportunities to transpire, which enables

students to combine, refine and build upon their current understanding of a subject and grow more than they would have on their own. In addition, another form of learning from others is through exposing children to social situations in the community outside of school. This can take the form of field trips or even group community service projects. Altogether, working with peers and the greater community allows children to expand their minds through teamwork and understanding issues in applied contexts (Vosniadou, 2003).

In both ELA and mathematics, the Common Core has virtually no group learning. In ELA, students are encouraged to listen to others' opinions, which demonstrates active listening, but group activities are limited to discussions and there are limited situations where students must work together to actively solve a problem or create a product that exhibits their comprehension of a topic. The only projects suggested are research and writing based and are essentially defined as the synthesis of findings from books. Although this provides an opportunity to work together as a group, it disregards the social benefits students could receive if they were more actively engaged in the material and with one another, because the "project" is only asking them to reiterate information. For ELA specifically, children could greatly benefit from learning about their classmates' opinions on subjects instead of limiting the standards to individual writing responses on understanding the text. Math could also be useful, because children can help and teach each other different approaches to problems, and if there are projects they can work together to learn in an applied way. Additionally, there are no requirements for children to connect their learning to the outside world through projects, field trips or community service. Real world experiences have the potential to make content areas come to life,

and have students realize that what they learn in school can be used in everyday life. Especially if the Common Core's ultimate goal is to produce students that are ready to enter college or start a career, project-based learning both in and outside of the classroom would be beneficial.

A last consideration in evaluating how students' minds operate is the emphasis of understanding versus memorizing content. Memorizing isolated facts is not conducive to the learning process, because they are not understood in their entirety. In addition, memorization causes facts to be recalled temporarily, so if the actual concept is never understood then students will not be able to recall the information in the long term. Ways to encourage understanding versus memorization in the classroom include asking students to rephrase concepts in their own words, applying the concepts through examples created by students themselves, and answering problems that involve applied concepts proposed by teachers. This facilitates more critical learning instead of recalling information that may not even be easily elicited later (Vosniadou, 2003).

Because the Common Core is a set of standards, and there are no methods that describe how lessons should be taught, the application of the lessons varies depending on the teacher. On the one hand, the standards can be susceptible to using a memorization teaching method, especially for teachers who are accustomed to the former way of teaching to the test. However, there are fewer standards, and they are designed in a way that should provoke open-ended answers, so students should be able to fully understand each concept better now. For ELA, there are many references to recollecting and summarizing events or facts that are described in the text such as event recollection, theme identification and identification of relationships between characters and ideas

(Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects, 2010). Making connections and drawing conclusions is key in creating deeper understanding, so teachers should focus on presenting information in an interactive way, which is not required or explicitly suggested in the standards, but can be practiced. In addition, mathematics has essentially no reference to how topics should be presented, revealing a lack of guidance in how the standards should be applied (Common Core State Standards for Mathematics, 2010). In all, not all standards imply that they must be taught through memorization, but it would be helpful if there were more resources for teachers to assure that they present the content in the most effective way possible.

In conclusion, many of the Common Core standards are not completely consistent with children's cognitive development, and there are a limited amount of standards that require active learning, and social participation, but there is an emphasis on understanding versus memorizing material. It is uncertain whether or not children are capable of tackling the standards set forward, and the strategies for teaching are unclear. Finally, there are other reflections with the Common Core that are not necessarily related to developmental psychology but are also important, therefore they will be discussed in the following section.

Chapter 5: Public Response to the Common Core

The Common Core has now been implemented in 42 states and 4 territories in the United States, and it has been received in various lights. It is important to note that when a standardized curriculum changes, the process of implementation and transition is prone to challenges. Although the Common Core was an attempt to universalize education, each state adopted the standards by choice, and had the liberty to use and not use whatever material they felt was best for their region. However, many of the criticisms are similar, and therefore it is beneficial to assess various sources such as statewide considerations, teacher critique, and parent and student perspectives.

Statewide Considerations

California is an extremely diverse state that must meet students' needs of various ethnic and socioeconomic backgrounds. When the state decided to adopt the Common Core standards it was understood that the drastic change in curriculum would cause test scores to drop. However, what is most troubling is that the achievement gap among races became even greater where White and Asian test scores decreased, but Black and Latino test scores plummeted. For example, in 2013, before the Common Core was implemented in California, the gap between Asian and Black students in English was 38%, however in 2015, with the Common Core, the gap widened to 44%. In addition, because Asian students' scores decreased the least in comparison with other ethnic groups, the gap became even wider than before. In terms of socioeconomic status, there is a large difference in test scores as well where low-income students' scores in math

decreased 51% while their wealthier counterparts only experienced a deficit of 16%. One of the speculations as to why there is a stark difference is due to low-income students' lack of exposure to technology. Because the tests are now administered via computers, it became necessary for children to acclimate to this new method of testing. In addition, because of the requirement for computers, some school funding needed to be devoted to the purchase of computers, which some would argue could have been invested in teacher training. Not only was the means of administration different from what students had previously experienced, but also above all the content was presented differently and graded harder than what students were accustomed to (Blume, 2015).

Although the Common Core seeks to universalize education in California, race especially must be taken into consideration when reforming curriculum. That is, when new standards are implemented, performance is dependent upon the population that is utilizing it. Despite the fact that statistics show that Asians and Whites have always scored better, if the gap is increasing then teachers and administrators must respond by targeting the specific populations that require extra support.

Because California is such a diverse state, it is useful to compare how the Common Core operates in New York, another diverse state that has had the Common Core a year longer than California, to see if the problems exist in both states. Indeed, this is not a problem limited to California, but at-risk students in New York received lower test scores as well. Among Black, Latino and at-risk students, exam rates dropped 20 points. Also in New York, other populations such as English language learners, students with disabilities and poor students experienced decreased scores up to almost 30% (Decker, 2015). As a result of these alarming scores, many parents boycotted the

Common Core itself, and others opted out of testing in the amount of tens of thousands. In terms of the rest of the country, on average, half of students qualify as proficient in ELA, and less than half in mathematics. Before jumping to hasty conclusions, some would argue that the format of the test is completely different, so it is unfair to compare present scores with previous ones, and that it will ultimately take time to see the intended change that policymakers seek (What will the Common Core test results show?, 2015). This shows how the problem is not unique to California, and that minorities and people of low-income backgrounds also exhibit declines in their test scores. Therefore, teachers must be active in not only presenting these new standards in effective ways, but also keeping in mind the populations that would benefit from additional help.

Teacher Critique

Because the Common Core was created by nonprofit organizations, testing agencies and politicians, the only stage of development that specifically consulted teachers was the review process. However, for the vast majority of teachers, the first time that they saw the Common Core was when they needed to implement it into their classrooms; while some differences were dependent on the region, much of the support and criticism was similar. Therefore, there are many areas of support and criticism, so it is valuable to refer to the opinions of teachers working with the Common Core curriculum themselves.

I interviewed two teachers who work at Joseph Casillas Elementary School, a public school in Chula Vista, CA. The student body is comprised of 38% low-income students, 59% are of Hispanic origin, and a total of 84% are minorities (Joseph Casillas

Elementary, 2014). Lee Sison is a 6th grade teacher who has been teaching for 13 years. Mr. Sison describes that he

like[s] how Common Core teaches kids to think, problem solve, and effectively justify their answers in multiple ways. I do like how the focus is on basic math computation in the lower grades, which in theory allows me as an upper grade teacher to focus on higher-level math skills.

This shows how the explanations that the Common Core requires can be beneficial for both teachers and students. His coworker, Melissa Stephens, has been teaching the 5th grade for 13 years, and also echoes the belief that the Common Core challenges students in a way that expands their thinking. Mrs. Stephens explains how requiring students to validate their answers actually requires them to think outside the box, particularly in mathematics. These explanations build upon multiple-choice testing, because instead of selecting a letter answer, they must defend the answer with an explanation, which enforces the process more than the outcome.

Another teacher from Claremont, California, Scott Boen, has been teaching for 13 years for transitional kindergarten through 2nd grade at Oakmont Elementary School. Students at Oakmont are diverse as well where 54% are Hispanic, 22% are White, 12% are African American and 6% are Asian and 61% are considered lower income (Oakmont Elementary, 2014). When the Common Core was first introduced, both teachers and parents were confused about what changing the standards entailed, but quickly learned about it. At Oakmont Elementary, the school informed parents of the change to the Common Core through curriculum nights so that they could learn more about the specific changes. Mr. Boen believes that the Common Core is better for teachers, because their

lessons are more flexible and creative, and emphasize problem-solving, analyzing, critical thinking and project-based learning.

Mr. Sison, Mrs. Stephens and Mr. Boen presented some problems that the Common Core has and that need to be addressed in order to assure that students reap the optimum benefits of the curriculum. First, one of the main criticisms from teachers is that they were not given enough time and resources to know how to teach the Common Core. Teachers were told that they were required to use the Common Core, but there was little guidance in aiding the implementation of the program. Although they were given the standards, there was no formal curriculum or training for how to use it, and this was the case in numerous other areas. While some teachers, such as Mr. Boen, may appreciate the freedom they have to apply the Common Core as they see best fit for their students, some things are left unclear. In addition, he has also observed that some teachers have difficulties reverting from teaching standards in isolation, because they became so accustomed to the rigid teaching to the test model.

However, in some parts of California teachers were given more guidance. This summer, six school districts and a charter school system participated in a professional development program where they learned strategies of how to implement the Common Core into their classrooms in ELA and mathematics, which were funded by grants and directly from nonprofit organizations (Ellison, 2015). Although these trainings are excellent ways to equip teachers with the tools to serve their students in the coming year, it is not accessible to teachers throughout the state and even the nation. The Common Core standards may be universal for all students, teachers, and schools, but the inadequate training is a reflection on the country's unequal school system. If only

particular regions have access to teacher training, the rest are at a disadvantage, because they are not given the same support to serve their students.

Second, teachers have observed dramatic drops in test scores. In Mrs. Stevens' experience, her students that were already behind academically before the Common Core began are even more behind now, especially in ELA. Although she believes that challenging students can increase their learning, students that score below basic are susceptible to feeling discouraged. Therefore, this recognition further supports that as test scores decrease that the most vulnerable students must be monitored so that they do not remain behind.

Third, the pacing of Common Core testing and the way teachers prepare students for tests can be improved. In the Common Core, weekly evaluations are conducted to evaluate students in the form of pre- and post-tests. From transitional kindergarten and beyond, students are constantly tested to evaluate performance. Mr. Boen warns that the danger in this "data driven instruction" views students more like statistics than individuals. Also, although the standards are more or less clearly outlined, the evaluation is somewhat unclear and unpredictable of how the information will ultimately be evaluated. Because of the open-ended nature in how the standards can be applied in classrooms, to a certain extent it is unfair if all students will ultimately be given the same evaluation (Guzman-Lopez, 2015). In New York, teachers are also wary about the ramifications of testing. Because there is such a pressure for students to perform better, the most common means of evaluation is testing, and the effectiveness of teachers is dependent upon their students' scores (Parents and teachers voice concerns at Common Core Task Force, 2015). Putting an emphasis on test scores is not only unfair since the

parameters of how to teach the concepts are so loosely defined, but also takes the focus away from what students gain and rather on teacher performance and recognition.

Because there is no clear way for teachers to practice the Common Core, they may implement the standards in their classrooms however they want, and their successfulness can be quantified through test scores. Therefore, this enforces the testing culture where the focus is on how high test scores can be versus how much students learn.

Fourth, technology has also been a factor in the implementation of the Common Core. The weekly assessments are completed online so if a school has access to a limited amount of computers, then this impedes a student's ability to receive the same amount of feedback as a school with ample resources. Mr. Sison explains how access to resources, especially technology, must be more equitable regardless of location and socioeconomic status so that students acquire the benefits from these learning tools. Therefore, although the set of standards in the Common Core may be the same across the country, the resources each school has varies, which can impact student performance.

A fifth consideration is special education, because there is currently no modified assessment for students with disabilities. Students with disabilities are tested based on the same standards, and it is the teacher's responsibility to create further modifications of the Common Core standards. Mrs. Stephens explained how special education teachers and support staff devote much of their time to extra paperwork and meetings, and there is often a lack of special education teachers, speech therapists, and school psychologists. Therefore, the added work of accommodating to the Common Core standards is particularly burdensome for this population.

Last, the transition to the Common Core also impacted students and their way of learning. Mrs. Stephens observed that the abrupt transition to the Common Core frustrated and confused many parents, although students adapted considerably well. However, because the new standards were introduced to students in the middle of their educational careers, the adjustment to the Common Core required an introduction to new types of material content and an entirely novel and unfamiliar way of thinking. For example, the Common Core now incorporates more informational types of texts. Both teachers and students have found it challenging to engage in this type of material, so it can be challenging for teachers to ignite excitement in students when they are not passionate about the content themselves. Also, previously students were not asked analytical questions, so it can be challenging for them to articulate their way of thinking. ELA and math now require thought-out explanations through the Common Core, which is a drastic alteration compared to the multiple choice or one sentence answers students have been accustomed to their entire lives. Altogether, the content and the approach to answering problems are different, and while it may be valuable for students to have this exposure, teachers also need to guide them in this transition to diminish the sense of unfamiliarity.

At Joseph Casillas Elementary School, the school where Mr. Sison and Mrs. Stephens teach, the majority of students did not meet or exceed the ELA and math Common Core standards according to the 2014 assessments. In ELA, 51% of students met or exceeded the standards, and in math 43% met or exceeded the standards (Common Core in California: How did your school score?, 2015). At Oakmont Elementary School, the school where Mr. Boen teaches, the numbers are even lower. In ELA, 37% of

students met or exceeded the standards, and in math only 25% of the students met or exceeded the standards. These scores may initially be shocking for those that do not understand the Common Core in its entirety. After understanding how the curriculum assessments are more challenging, and there was a lack of teacher preparation, technology and resources, the low test scores are more justified. Hopefully, it provides the motivation to improve and refine the way the Common Core is used, so that students perform better but more importantly learn the most they can from this new curriculum.

In summary, Mr. Boen explained that the Common Core ultimately benefits students, because it challenges the way that students think and approach problems by using real world applications. Because the concepts are not taught in isolation, information will be retained better, and this way of learning will make students more successful if they choose to go to college. Furthermore, Mr. Sison identified that the determinant of the Common Core's success is dependent upon the teacher's ability to teach effectively, because only then will the standards positively serve students. Many believe that the Common Core has the potential to revitalize education in the United States, therefore it is all the more imperative to assure that teachers feel supported in the mission to enhance student performance. The Common Core has the potential to be successful if teachers receive more guidance in implementation, test scores improve, the use of testing is minimized, technology, resources and special education aid are provided, and teachers actively assist students in the transitional process.

Student and Parent Perspectives

Although the state was well aware that test scores would drop and teachers were somewhat notified that they would have to adapt and refine their lesson plans, students

also needed to adjust to the new way of learning from one school year to the next. From a student's perspective, changing to the Common Core so abruptly does in fact impact their test scores, and it also influences their morale. Ultimately, many students are conscious of the changes in the curriculum, and are expected to meet the new standards accordingly. Therefore, since students are the ones being taught the Common Core, it is also pertinent to consider their perspectives.

In an article in the New York Times, when a teacher asked students how they identified themselves through a self-portrait poem, a 9-year-old described himself as someone "who struggles with math." Prior to the implementation of the Common Core the child, Chrispin, performed well academically, but in the new system he now falls in among the lower percentage of his class. The change to the Common Core was severe, and Chrispin did not understand the new approach to learning. His poor academic performance ultimately caused him to go to summer school to relearn the concepts, which decreased his overall confidence in his academic abilities. One of the setbacks for Chrispin is that his family came from Haiti, so his mother's limited English made her incapable of helping her son with his homework. His older sister stepped in and attempted to tutor her brother along with her other younger siblings by having them elaborate upon their answers like the Common Core requires, but they were unable to articulate their answers. When the work became too difficult and Chrispin no longer knew how to explain his train of thought and how to approach math problems, he became disengaged in school altogether. Eventually, Chrispin improved in school after his family encouraged him to work harder, but it took an entire school year to do so (Hernandez, 2014). However, the danger for students like Chrispin is when students do not gain the

motivation to create a change in their study habits, and they become disinterested in school completely. For that, it is important that teachers and parents are conscious of their child's performance so that they do not fall completely behind.

I had the opportunity to interview a student myself, Hunter Herring-Alderete, a 7th grade student who attends Los Alisos Intermediate School in Mission Viejo California. Over half of the students at Los Alisos come from Hispanic backgrounds; the second largest ethnic group is White with 33% of the population, and 49% qualify as low-income (Los Alisos Intermediate, 2014). The Common Core began last year in Hunter's school, so he had the opportunity to identify some of the changes in the course content, and the way it was presented. He explained how they began the academic year by briefly reviewing materials from the previous year, but then proceeded to cover material that was "extremely harder." Hunter explained how although the material in itself was more challenging that the teachers tried to present the material in more engaging ways than before the Common Core began. Personally, Hunter prefers to learn from projects because he learns best from interactive experiences, so he is enjoying the new system. Overall, he feels as though he is learning many new things, but still worries that other students may fall behind. This further enforces that while the Common Core can further student learning, students themselves recognize that the content is more difficult, therefore not all students will rise to the challenge with equal amounts of conviction and motivation to combat these challenges.

In addition, although students are the direct beneficiaries of the Common Core, when they are unable to complete their homework, they often refer to their parents for assistance. Therefore, parents are also important to take into consideration when

evaluating the Common Core. From the parents' perspective the most troubling concern for them is their ability to assist their child with their work and the pressure the Common Core puts on students to perform well on standardized tests (Hirsch, 2015).

New York experienced a similar problem at a public hearing with Governor Cuomo where parents described how their children feel immense pressure to perform well on the tests, and that there is a lack of clarity about how to study for them (Parents and teachers voice concerns at Common Core Task Force, 2015). In terms of homework assistance, a K-12 dual certified, special education teacher in New York explained how she feels incapable of assisting her 4th grade daughter with homework. Despite the fact that homework, in theory, is a repetition of the knowledge that has already been obtained in class, her child seems unable to answer many of the open-ended questions. Therefore, this student, like many others, relies on her mother's assistance to complete assignments, but even she has to use the Internet to teach herself the concepts and then translate that information to her daughter (Hirsch, 2015). Although this particular mother is willing to actively support her child by searching for this information, some parents do not have the time or ability to do the same, and, regardless, should not be expected to. If homework is a true evaluation and review of the information that should have already been discussed in class, then the Common Core should not rely so heavily on independent learning.

On the other hand, Mr. Boen, a teacher and parent of a 2nd and 7th grader from Claremont, California prefers the Common Core standards for his children. He believes that the emphasis has transitioned from memorization to analytical and critical thinking, which challenges his daughters to engage in more project-based learning. For example, his 2nd grade daughter did an entire ancestor project to learn about where she came from,

and the 7th grader does many interactive projects for her biology class. Previously, he felt that the school taught standards in isolation and these projects allow for opportunities to connect the learning to real world applications. Mr. Boen's main criticism is that teachers are so accustomed to teaching to the standards that it hinders their ability to teach in more creative and interactive ways. He feels as though he has the ability to answer the questions his children have on assignments, and, as an educator himself, he has the added benefit of knowing the way the teachers may want students to answer questions. Ultimately, he believes that the Common Core model is the best way for his children to learn, as long as the teachers apply the standards in an effective manner.

Overall, students and parents recognize the benefits of the Common Core, but initially it can be very intimidating. Like teachers and states, the transitional phase was somewhat confusing for students, especially having them adapt to a new way of learning. At the same time, many appreciate the way that the Common Core challenges students in new ways. Test scores are still considerably low, and teachers have many factors to take into consideration, but schools, teachers, students, and parents are generally receptive to the Common Core.

Conclusions

Evidently, the United States' education system is not producing superlative students, and that is validated through its international ranking. The United States is notorious for decentralizing power where states are encouraged to serve its particular populations, but this has some negative effects when it is applied to education. The state of California, for example, used the STAR program from 1997-2013, which had a tremendous emphasis on standardized testing. At the end of every school year, from grades 2 and beyond, the final examinations amounted to 8 to 13 hours. Ultimately, test-oriented education proved to be unsuccessful, because it created pressure for teachers, principals and students to devote their attention to test scores and grades. This is detrimental, because teaching to the test not only creates cultural test biases, but also an educational culture where students are viewed as the numerical score of how they perform on a test versus their personal development as individuals. Focusing on testing did not produce smarter students and actually translated to low international rankings, and, what is most destructive, teaching millions of students in a way that is not even conducive to the way that children learn. Furthermore, all of the varying approaches to education among the states revealed the country's much needed improvement to a system that was failing students.

Therefore, the Common Core emerged from a demand to improve student performance in an international context by creating better standards that, ideally, all states would adopt. Although Common Core requires the reformation of the classroom,

teachers were not consulted in the drafting process and were only involved when the standards were reviewed and edited. Instead, governors, nonprofit educational entities, business leaders, and testing agencies were the creators of the Common Core. Although educational policy is political to some extent, the question arises of who is most qualified to know what works best for students, which, in theory, should be those that devote their lives to teaching students, teachers. In addition, there is an inherent and inevitable bias when testing companies are entangled in the development of curriculum. Furthermore, as established previously, regardless of who creates the curriculum the country should avoid using a system that overemphasizes testing altogether. Therefore, the first shortcoming in the Common Core is the group of individuals that were deemed to be at the forefront of this transformational curriculum.

Despite this evident flaw, “Benchmarking for Success,” the original proposition with steps to enhance education in the United States, proposes some useful recommendations, although they were not all implemented. The first success of the plan was the establishment of the Common Core standards, which encompassed fewer but more rigorous topics so teachers could teach the concepts in more in depth. The second step was partly addressed where textbooks, digital media, curriculum and assessments were aligned with the standards, but there was no formal training for teachers explaining how to utilize these resources in their own classes.

The last recommendations in “Benchmarking for Success” were omitted or perhaps overlooked entirely. First, state policies still lack competitive recruitment for teachers, because they are still not recruited from the top percentages of their graduating classes. Second, the proposal also suggested having more strenuous training before and

during one's teaching career so that educators could have continual support and professional development throughout their careers, which still does not exist. Third, there is no system to assess the success of the Common Core, and how it has affected the United States' international education ranking. However, based on the even lower test scores on the new Common Core tests, the international ranking has most likely not improved. In addition, in my interviews the teachers discussed these original action-steps that were never executed from "Benchmarking for Success" as recommendations to improve education. Mr. Boen advocated for a recruitment system modeled after Finland to have teaching be a more desirable profession and Mr. Sison and Mrs. Stephens described how they would benefit from more training for how to teach the Common Core specifically. This shows how a fatal flaw in the methodology to improving education through rewriting standards alone does not completely address the deeply rooted problems of the American education system, which could be further improved through better teacher recruitment and training as well.

While restructuring standards is an important element to reforming education, education can be further strengthened through modeling other successful aspects of various countries' education systems. The main precautionary measures to take with the Common Core are having a teacher that can effectively apply the new standards, which could be improved if there were higher requirements to be a teacher and better pay so that the profession would attract the most intelligent and capable individuals. Secondly, even if teachers have the aptitude to teach, if they are not provided with adequate resources to support students then they will not teach as successfully as they could. Therefore, all students, regardless of their background, should have equal access to quality education

and this could be accomplished through learning in socioeconomically diverse environment. Lastly, once teachers consist of a competitive group that have the tools to teach students, they need ongoing support such as feedback and professional development so that they can constantly be improving upon the way that they teach children. The true key to maximizing the benefits of the Common Core curriculum is to cultivate more motivated teachers that strive to constantly advance their students by providing them with ample training, resources and support to do so.

In addition to these considerations to improve education, the Common Core standards themselves can be improved through making sure that children have the cognitive ability to actually master the standards. In particular, children should not be expected to make literary or measurement comparisons, create hypotheses or participate in abstract thinking before they are able to cognitively do so. In addition, sociocultural factors should be purposefully integrated into the classroom through providing students opportunities to be active learners, work with peers, connect with the community, and learn overall concepts versus memorize isolated pieces of information. However, because the Common Core is a list of standards, the way in which these lessons are taught is open-ended, so it can be difficult to ensure the lessons are taught in an effective manner.

In conclusion, the United States' education system inarguably warranted revitalization, and the Common Core was an attractive solution. The Common Core focuses on fewer topics, analytical and critical thinking and teachers have the flexibility to apply the standards as they see best fit. This freedom allows teachers to do what they want in their lessons, but they can only be effective if they understand the expectations of

the Common Core and are supported in a way that they can teach well. Therefore, teachers should be supported with this responsibility through having more resources for their students to teach the Common Core. Furthermore, this responsibility becomes difficult when there is an overemphasis on testing, and the perception on education should revert to the student as an individual versus the ability to perform well on a test. In all, the Common Core has resulted in dramatic decreases in test scores, especially in minority and low-income communities. Despite this initial difference, teachers, students and parents are hopeful of the Common Core's ability to expand children's minds, but ultimately it is the execution of the curriculum that will determine the successfulness of the program.

One parent describes the Common Core as follows, "Make no mistake, this is challenging work, both for students and teachers, and we need support to continue transitioning to these new expectations, but I cringe at the thought of how impeding the Common Core would impact our children. We cannot halt the tremendous progress that has been made nor make our children wait longer to learn the skills they will need to be successful in college and career" (Finch, 2014). So long as the Common Core remains in existence it will allow students to learn in a different way. The Common Core challenges students to think in different ways even if the material is unfamiliar, which can actually increase their understanding of a topic. It calls on teachers to aid students in the attainment of knowledge through applying effective learning strategies, and encourages parents to support their child's academic progress. Lastly, in the future, when developing universal standards for education it would be beneficial to actively involve teachers in the development process. In addition, applying international practices can

also help to continue to reform education, as was originally intended in “Benchmarking for Success.” The Common Core has immense potential, and although the application of the standards is inconsistent and additional changes to education can be made, ultimately all different levels of the educational spectrum seem motivated, determined and devoted to creating the strongest generation of learners to date for the United States.

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