

Common Core State Standards: Opportunities, Challenges and a Way Forward

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Abstract: *The Common Core State Standards (CCSS) were developed through a collaborative effort by educators from all fifty states so that a clear concise set of uniform standards are available to guide K-12 instruction in the United States. Previous to the CCSS no such document existed in the United States. Thus, the CCSS are relatively new and some in the educational community welcome them with open arms while others hesitate to endorse them. This paper researched these divergent perspectives and found that research on educational change can point out the problems and benefits connected to CCSS. Some of this information targets the standards directly and some indirectly. A review of research literature helped present insights with some possible strategies for those who are eager to implement them and those who hesitate to embrace them as both groups work towards the implementation of CCSS which are now mandated by a majority of the 50 states. These insights suggest that implementation of the CCSS should be gradual and well supported so that all educators are adequately prepared and can help facilitate the changes CCSS will require.*

Key Words: *Curriculum; Educational change; teacher education; professional growth*

I. Introduction

CCSS were created to address the need for educational change in the United States educational system. Fullen (1993) posits that you cannot dictate change, change is a process, change brings problems which need to be embraced, individual and collective needs must be balanced and vision and strategic planning follow the change rather than precede it. Christensen, Horn, & Johnson (2008) refer to change as ‘disruptive innovation’ stressing that change only succeeds when those who implement it focus on its affordability, accessibility, capabilities, and responsiveness. If the CCSS are to become an agent of change they need to be more than a public policy that addresses some obstacles to excellence (Covaleskie, 1994). Taken together these researchers identify that lasting change can only be accomplished when it is understood that changes to educational policy are not capable of producing excellent schools (Cvaleskie, 1994). Excellent schools are the result of thoughtful implementation of change which considers the needs of all stakeholders (policy makers, educators, parents, and students).

The common core state standards (CCSS) mission statement states that they exist to prepare youth for success in college and the workplace (“Implementing the Common Core”, 2013). This is best accomplished with strategies for task attainment that are borne out by research. A strategy is a careful plan designed to reach a specific goal, and reaching that goal may take a long time. Incremental change can be more effective than sudden change (Educational Commission, 2000). Special care must be taken when designing and implementing the plans to

accomplish that goal. Those tasks that run contrary to research should be identified and removed from the process, and those that are supported by research should be encouraged.

The CCSS are designed to help learners develop higher order thinking skills so that when they graduate from high school they will have the “skills and knowledge necessary to succeed in college, career, and life, regardless of where they live” (Common Core State Standards Initiative, 2016). Higher level thinking skills have been linked to whole child development (Fullen & Levin, 2010). Thus, the CCSS exist to prepare the whole learner for their life after school.

Fullen & Levin (2010) state that whole system reform must first be accompanied by respect for teachers and a system that attracts new teachers, supports and develops current teachers, and which works to retain them into the future. Second reform needs to be focused on a few big picture priorities. The CCSS may fit well into this model as they focus on higher order thinking skills and how they may be taught in schools. If they also focus on the needs of the teacher they may prove to be a useful in guiding educational change in the United States. Research also shows that curricular and structural changes like those proposed by CCSS may experience difficulties and there can be issues related to the change and its implications for stakeholders impacted by the change (Aksit, 2007). This paper will examine research literature for strategies that may help identify the best way for CCSS implementation over the coming years. These strategies are focused and do not include all possible strategies. Additionally, researched challenges also appeared in the literature but only some are covered in this paper.

II. Common Core Opportunities

Colleges and industry are looking for people who have certain identifiable traits and abilities. Thus, a good place to start when looking at CCSS strategies would be at what colleges and industry are looking for. When examined there are many similarities between the types of people they are looking for. A comparison of lists of desired qualities from both colleges and industry reveals that the top ten traits and characteristics desired in new recruits are similar (Adams, 2013; “Character Counts”, 2013). At the top of both lists is the ability to work in a team setting, followed by communication skills, analysis of problems and the ability to think clearly, and plan and organize work. Surprisingly, content knowledge was listed down each list at numbers 7 and 8 respectively. The placement of knowledge lower down the list aligns with research on top performing companies. In research done by Collins (2001) employee knowledge was seen as less important than a person who was enthusiastic about the organization and who was a gifted and talented communicator with vision and problem solving abilities.

One good example of encouraging creativity can be found in The Pikes Place Fish Market in Seattle, a successful company renowned for its entertainment value and ability to draw locals and visitors from far and wide. This business provides patrons with a unique experience when purchasing fish for a meal or simply walking by. The employees understand that they are selling more than fish: they are selling an experience. The atmosphere and method of business is so attractive that persons often buy fish which makes for a healthy business model. A group of researchers observed this business model and distilled what they observed at Pikes Place Fish Market into four basic techniques that were used repeatedly by all the employees’ (Strand, Christiensen & Halper, 2006). This ‘fish philosophy’ posits that all employees need to check their attitudes and choose to be positive in their interactions with each other and the customers. The second ‘fish’ strategy stresses the importance of creativity and having fun so that what they do looks and feels like play. Employees are also taught to be there for the customer not just momentarily but consistently so that the customer feels important. The final strategy is to make someone’s day which in turn lifts the employee’s spirits. These four strategies can be seen as the employees shout out fish orders for all to hear and throw large fish around all the while seeking out those who come by for interaction and a possible sale.

Playing with Fish.

Educators can learn from the ‘fish philosophy’ of the Pike’s Place Fish Market. Teachers who are there for the students are concerned with how they teach and how their instruction affects the student. This teaching strategy is implemented by what the teacher does during instruction (techniques). Great teachers should focus on the techniques of their instruction because they directly control them (Agnello, Pikas, Angnello, & Pikas, 2011). Teachers who practice effective teaching techniques refine their artistry as a teacher (Lemov, 2010). This is important because educators are tasked with inspiring students to learn and not simply how to learn (Strand et al., 2006). Teachers control what they do and how they go about their job and this starts with attitudes that are focused

on being there for those they teach (Strand et al., 2006). Students are adept at identifying teachers who are there for them and those who are there for themselves and respond accordingly.

Another way to insert the ‘fish philosophy’ into teaching is to work hard and play harder (Tarkan, 2012). A strategy of play attracts people and boosts creativity for everyone involved (Tarkan, 2012). Some businesses are even adding play strategies to their workday. Google headquarters has swimming pools, foosball tables, video games, billiards, ping pong and yoga classes (Strickland, 2013). Southwest and IDEO have positioned play centrally in their corporate landscapes (Mainemelis & Ronson, 2006). Play can make tasks more fruitful and enjoyable, therefore increasing the enrichment gained from the task (Kemp, Smith, DeKoven & Segal, 2013). When companies or schools implement a strategy of play they do so to inject creativity, autonomy and increased problem solving abilities into their personnel. CCSS stresses the importance of encouraging creativity and problem solving because this is what colleges and industry are looking for in their students and employees.

When people engage in play they focus on process, while a focus on work leads to outcomes (Abramis, 1990). Persons who are good at problem solving and have good creativity do so with a focus on process over outcome. The processes being extolled by CCSS can be linked to principles of play. There are two types of play: One is play as a game and the other is play as goofing around (Abramis, 1990). Educators should focus on play as a game since it is structured and improves focus, while play as goofing around leads to less organization and unstructured thinking (Abramis, 1990). Additionally, when tasks require autonomy and are challenging with a focus on learning, play as a game is preferred (Abramis, 1990; Sanacore, 2008). Autonomy and challenge have been linked to increased learner motivation. Motivated learners are easier to engage and students who are engaged in something they are interested in achieve more with better outcomes (Tarkan, 2012). Instructional strategies that incorporate principles of play into lessons can involve learners through a focus on process. Following their engagement in process students can then reach the desired instructional outcome more completely and at a deeper level.

Some of the many benefits of play are: connectedness, creativity, flexible learning, reduced anxiety and depression, refreshed mind and body, and increased energy (Doster, Mielke, Riley, & Toldeo, 2006; Kemp et al., 2013). Tsai (2012) reports increased creativity in the ideas of those who engage in play. Mihaly Chermimsky, a well-known expert in psychology, states that play is a state of consciousness that requires a balance between challenge and opportunity. When students enter this balanced place they have increased clarity, confidence, peace, motivation and involvement (Kemp, Smith, DeKoven, & Segal, 2013). Abramis (1990) states that play can increase productivity when students reach a level of balance which Chermimsky refers to as a flow state. As CCSS standards are implemented teachers may want to insert characteristics of Chermimsky’s flow theory into their instruction. The benefits of play seem ideally suited to the deep learning which CCSS are designed to produce (Gruber, 2012). If students are given a level of freedom that encourages constructive structured play they will combine ideas and concepts in ways which are new and useful for solving problems (Mainemelis & Ronson, 2006). Play allows for new creative ideas because it engages the creative side of the brain where ideas flow freely and new heretofore unmade connections are made (Tarkan, 2012). Learner autonomy and structured play lead to student engagement and creativity resulting in a deeper understanding of the topic under study.

Contemporary Learners.

Today’s learners are different from the learners of the past. They have grown-up using technology that visionaries could only dream of before. Today’s students enter a world with computers, tablets, smartphones and virtual games. The things learners are born into are the things that appeal to them as students (Prensky, 2007). Student preferences and needs have changed and to reach these students educators need to present content in ways that are acceptable and recognizable to contemporary learners (Prensky, 2007). When educators use the technology that students are familiar with they can help to optimize student interest in learning (Marcoux, 2012). CCSS opens the door to the integration of technology into the learning process. Once educators let these new innovations through the door the use of technological learning tools will only expand (Marcoux, 2012). Adjusting teaching strategy to the needs of the students does not prevent the techniques of the past from being useful. Teaching strategies change with the learners needs but the techniques of great teachers tend to remain the same (Lemov, 2010). Techniques are actions that educators engage in while teaching. Strategies are the plans and goals that educators want to accomplish in their instructional time.

Research indicates that curriculum can be viewed in two ways: Educators can either look at *what* is learned or *how* it can be learned (Prensky, 2007). CCSS is concerned with what is to be learned and states that instructors are responsible for how it is learned (“Common Core”, 2010). Prensky (2007) refers to basic teaching from the past as tell-test and posits that this type of instruction is even the dominant type of instruction found in

contemporary e-learning courses. He suggests that learners no longer wish to be filled up by their teachers but want to interact with their learning as doers and creators. This constructivist view of learning works well with the overarching theme of CCSS. The CCSS mission to get students prepared for a future where problem solving, creativity, and communication are keys to success can work well when educators change their focus from what to teach, to how students learn different types of content. Educators can use CCSS to identify strategies to present students with 'creative teaching' methods that are geared towards the learner and not towards the instructor. Learner-centered approaches to instruction and not content-centered approaches can help to reach today's student (Eick & Samford, 1999). CCSS fits well into this schema for learning and paves the way for each school site to determine how to implement strategies for teaching contemporary learners.

Learner-centered educators will focus on the basic techniques that have been proven to produce results (Travis & Lord, 2004). In order to become good and then great at something, techniques need to be practiced over and over until they become a habit (Collins, 2001). Becoming great at something is as simple as making the most of strengths and skills (Collins, 2001). In an educational setting the only thing a teacher can continually control is the techniques of their instruction (Eick & Samford, 1999; Lemov, 2010). Teaching techniques that have been tested are one aspect of the success of high performing educational systems (Barbour & Mourshed, 2007; "Lessons from High Performing", 2011). Placing the emphasis on proven instructional techniques can help lead educators towards fulfillment of the CCSS mission to prepare students for colleges and industry through higher order thinking, problem solving and communication.

Gaming Strategies.

There is a growing group of researchers outside CCSS who also believe that the strategies that are being used for instruction need to be updated (Gee, 2005; Shaffer, Squire, Halverson & Gee, 2005b; Shelton & Wiley, 2007; Jong, Shang, Lee & Lee, 2008). We need to prepare students to work in a changing workforce that requires complex thinking and the ability to use technology in new and innovative ways (Shelton & Wiley, 2007). Older instructional strategies are not suited to contemporary learners. There is a genre of computer games that use strategies that may prove to be more relevant for today's learner than current instructional strategies (Shelton & Wiley, 2007). Multiplayer video games contain many educational principals (Gee, 2005). Linking CCSS implementation to a new set of strategies garnered from contemporary learner practices and research may pave the way for more than curricular change. If educators can use research based relevant meaningful strategies in the transition to CCSS they will be able to upgrade not only the content but the planning and thought that goes into their implementation (Chun, 2010).

The strategies which positively affect persistence to game and enthusiasm in screenagers (teenagers who spend lots of time in front of a screen) are also relevant for instructional CCSS design. Multiplayer games provide players with an activity that draws them in so that they are encouraged to explore, be creative and problem solve on the way to a final solution. The multiplayer video gamer feels a sense of autonomy while they research creative solutions to the problems the game presents (Gee, 2005). Information in the multiplayer video game is distributed between the other players and the artificial intelligence of the game characters and the parameters of the setting that have been programmed into the game (Jong et al., 2008). The play theory states that the most effective method of instruction is play regardless of the domain of knowledge (Shelton & Wiley, 2007). Games are designed to help us play. Games have sets of rules that must be followed. The imaginary situation presented by the game, whether a video game or an instructional strategy presented to learners requires that the player follow behaviors and rules for game completion (Shelton & Wiley, 2007). Rules of the game provide the framework for the learning imbedded in the game (Shelton & Wiley, 2007). Educational institutions too often replace the propensity to play with work. Once a task becomes work students often lose motivation and never enter into a flow of learning. With the transition to CCSS educators have an opportunity to use new strategies that can connect learners to the things they value in their life. Learning strategies chosen for their ability to connect students and create a setting where focused play leads to deeper levels of understanding might help teachers reach the goals of CCSS.

Multiplayer video games provide users with constant action, feedback, and reactions to their game participation in all domains. Contrast this with traditional instructional strategies that require learners to listen passively, proceed with limited prompting from singular domains, and wait for performance assessment. When compared side by side it is easy to see why some advocate for multiplayer gaming strategies as a way to engage today's learner more effectively (Shaffer et al., 2005b; Shelton & Wiley, 2007).

Authentic Professional Learners.

Multiplayer video games provide the learner with an experience akin to authentic professional learning. Authentic professional learning describes the way that multiplayer games rely on varied sources for player development (Jong et al., 2008). Slepko (2008) states that this type of learning has been identified in a variety of ways: Experiential, situational, guided discovery and workplace learning are just some of the other monikers for authentic professional learning (Slepko, 2008). Shaffer (2005a) identifies authentic professional learning as 'thickly authentic'. He states that this type of learning environment is best achieved when the learner becomes a participant. By participating in the content learners are immersed and drawn in to intrinsic learning as a character in the process. Learners in this state see themselves as a persona involved with the content. Regardless of what term it is given, authentic professional learning refers to learning that is based upon and constructed through real life settings and experiences. When educators use strategies that help learners become immersed in the learning experience they are engaging the learner in a rich meaningful instructional experience similar to that of multiplayer video games (Jong et al., 2008).

Authentic professional learning, active interaction with knowledge and theories of play cannot and should not be implemented without the guidance of well trained and prepared teachers (Jong et al., 2008). The quality of the teacher is critical to the success of the student (Barbour & Mourshed, 2007). Students who are afforded the instruction of well-prepared instructors who update their practices with researched instructional strategies can achieve more than students assigned to a poor teacher (Barbour & Mourshed, 2007). Getting the learner to comprehend course content requires that the teacher balance the dissemination of content. Too much information too soon can lead to apathetic learners who are not challenged. Too little information and the learner will likely become frustrated (Gee, 2005; Jong et al., 2008). Knowledge is more than content, vocabulary, and concepts to memorize it is also experienced through activity, the senses, and immersion.

If educators are to change from strategies of instruction that focuses on content to that of the learner they will need to redefine what knowledge is. Knowledge approached as disconnected facts that must be mastered without context will not lead to deeper understanding of content. When knowledge becomes an activity or experience then the learner can relate to the content and apply it. Interaction with content results in greater understanding, retention and connectedness to the content being disseminated. Multiplayer video games contain knowledge that can only be gained through the activity of the gamer leading the player to a deeper learning experience.

Authentic professional learners require information that is embedded into their instruction at the right moments. When relevant facts are dispersed at precisely the right time, the learner will value the information, retain it, and have practice using it (Gee, 2005). Instructions given at the right time or when the learner is ready leads to engaged learners who perform at a deeper level of understanding. Authentic professionals take on a persona or identity as they perform tasks related to their job because they see themselves as part of the job. Their commitment to the task leads them to think for themselves and seek out creative solutions to problems that occur (Gee, 2005). Authentic professionals grow their skills as they interact with their world which in turn expands their understanding due to the new and varied experiences they encounter in their world. Students need to be given the opportunity to grow in a learning environment that has been created by qualified teachers. These qualified teachers offer the learner enough autonomy to engage in their own learning while building in help to keep them from becoming disillusioned and frustrated with too great a challenge or not enough guidance. If educators can guide students to a place where they are able to develop an understanding of the way facts interact with abilities and beliefs then they can direct learners towards increased deeper understandings that have relevancy and meaning for the learner (Shelton & Wiley, 2007). Trained teachers are needed to guide learners in this process.

Common Core Challenges

The CCSS suggest five changes to education in the United States. One of the changes indicated by CCSS involves measurements and assessments. CCSS states that, "First, most high performing countries use multiple mechanisms to monitor school performance, including annual student assessments in key grades and whole school reviews or 'inspections. Such inspections evaluate a school against a broad set of criteria, including, but not limited to, student achievement and also examine in school practices that contribute to school results.'" ("Benchmarking for Success", 2008, p. 30). The suggestion that educators should be evaluated based upon student achievement tests (one of the multiple measures being proposed) has been called into question by numerous groups and educational experts that stress that the empirical evidence does not suggest the efficacy of the CCSS policymakers reliance on assessments and evaluations (Brookings Institution; Cato Institution; Heritage Foundation; Hoover Institution; Pioneer Institute) (Adcock, 2013). Others mention that simply clarifying what children are to learn will not lead to increased learning (Adcock, 2013). Gallaher (2013) posits that those who control the tests

(common core developers and vendors) can also control the curriculum since assessments can dictate curriculum. Further concerns for CCSS shortcomings are evidenced in what some say about CCSS: CCSS tests are copyrighted and cannot be changed locally, the CC standards are not internationally benchmarked, the two major content experts (English/Language Arts & Mathematics) on the CCSS validation committee would not sign off on the final CCSS, states and parents were not involved in the creation of the standards and CCSS standards are wholly owned by private trade organizations who respond only to policymakers since they hold the key to the money box (Gallaher, 2013).

This concern over the way policymakers worked to create the CCSS may be explained by their use of evidences in their creation which were not solely research based. McDonnell and Wetherford (2013) state that evidence used to create the CCSS came from a broader grouping than research alone. Their research indicates that evidences in the formation and justification of the CCSS came from statistical analysis of data, professional conclusions, and authentic educator experiences assembled to influence the final perception of CCSS. The integration of these evidences was undertaken by what McDonnell and Wetherford (2013) refer to as policy entrepreneurs whose intent was to use these evidences to advance their solution to a problem they framed and defined in ways which the public would accept. In the final analysis the research used to promote the CCSS was framed by the “political context and the availability of relevant research” even though the premise behind CCSS lacked a robust research base and required other evidences to create a new policy (McDonnell & Weatherford, 2013, pp.1-2).

Evaluations Amiss.

Arne Duncan (2011), the former United States Secretary of Education, states that there are two essential goals for professional learning. First educator training needs improvement, and second improved student results are desired. He makes this statement while commending the seven standards for professional learning proposed in 2010 by Learning Forward: The Professional Learning Association (Duncan, 2011). The seven standards include the following aspects of learning; learning communities, learning resources, learning designs, learning outcomes, leadership, and data and implementation. A key point for each of the seven can be summarized as follows; implementation needs to be ongoing and not hit or miss, data is used to bolster the progress of the stakeholders not for evaluations, leaders participate in ongoing learning so that those they lead are motivated by their example, the focus of all professional learning needs to be informed and guided by student progress, effective learning designs are embedded into an educator’s workday so that learning is transferred into the classroom, proper resources for professional learning need to be a priority, and peer accountability is the most effective form of professional learning (Standards for Professional Learning, 2012).

Those who govern indicate by the policies they enact that it is important to use teacher evaluations to inform professional learning by linking them to student success (Burriss & Welner, 2011). This stands in opposition to the position of the Learning Forward organization which states that “Within learning communities, peer accountability rather than formal or administrative accountability ignites commitment to professional learning” (“Standards for Professional Learning”, 2012). This statement indicates that the second goal of professional learning, improved student results, posited by Secretary Duncan (2011), may best be addressed through professional learning communities. Making decisions about professional learning communities which contradict what research has revealed may lead to unfavorable results and a loss of time which no stakeholder can afford or desires for K-12 learners.

The implementation of CCSS has raised some concerns at the local and state levels. One of the first states to implement the common core standards was New York. One of the drawbacks the state has encountered seems to be educator evaluations. In 2011 the New York State Legislature passed a bill which links teacher and principal evaluations to student performance. This has not been received well. In October 2013 over 1500 New York state K-12 principals and over 6,500 teachers, parents, professors, administrators and citizens signed a position statement indicating their opposition to the bill (“An Open Letter”, 2013). In this position statement the principals point to scholarly research which contradicts the bill. Their position paper points out two concerns for what may be arbitrary links between student achievement and educator evaluations. Firstly, the principals feel that the emphasis on testing can cause educators to place too much emphasis on test preparation as they teach to the test and offer contracted curricular programs (“An Open Letter”, 2013), a position also posited by Burriss and Welner (2011). Second, money used for test taking and preparation, will go to vendors and not the students. Research shows that tying teacher evaluations to student success on tests can have ruinous effects (“An Open Letter”, 2013). These concerns are based on a lack of positive research for this technique and substantial research which points out the problems with this tactic (“An Open Letter”, 2013). The research listed in their position paper highlights three research articles, Golhaver, Brewer & Anderson, 1999; Papay, 2011; Rothstein,

2009, which conclude that tying educator evaluations to student achievement does not produce positive educational benefits although some do feel that success on standards can be predictive of future college success (Lemov, 2010).

The New York principals posit that educational institutions function best when all stakeholders work cooperatively towards student achievement and all take responsibility for the resultant student outcomes (“An Open Letter”, 2013). This approach coalesces well with the professional learning community approach embedded in the seven professional learning standards (“Standards for Professional Learning”, 2012). Each of these standards is aimed at enhancing effective teaching practices, building supportive leadership, and initiating improved student success (“Standards for Professional Learning”, 2012). The premise that professional learning communities are good for all stakeholders is well established in the literature (Cifuentes, Maxwell, & Sanser, 2011; DuFour, 2012; Hord, 2009). Given the effectiveness of professional learning communities, the problems with evaluations based on student achievement and the loss of curricular rigor associated with teaching to a test, it seems that at least some of the policymaker push towards CCSS may be ill advised. Interestingly, CCSS do not suggest that educator evaluations be tied to student achievement on CCSS tests but this suggestion can be found in another report by the National Governors Association and the Council of Chief State School Officers, and Achieve, Inc., the creators of the CCSS (“Benchmarking for Success”, 2008; “Mission, Goals, and Benefits”, 2011). Policymakers seem to have taken this ancillary document and used it to effect changes not directly suggested by the CCSS.

Educational school reformer Michael Fullan, from the University of Toronto, is known for his work in the Ontario K-12 school systems. He stresses that linking educator accountability to test scores and reprimands will fail to transform schools (Strauss, 2013a). He goes on to predict that the demise of the CCSS will be their focus on standards and assessments and not curriculum and instruction. Fullan also feels that data is not useful for accountability but for the development of strategies for improvement (Strauss, 2013a). Resnick & Resnick (1992) state that thinking curriculums can serve as tools towards educational reform whilst assessments can be incompatible with educational change.

It is important to know how you will assess standards before you implement them (Lemov, 2010). This strategy targets the results wanted and requires that standards are developed after the assessment. The problem with using student test scores may be linked to the difficulty in identifying what real quality looks like (Aaronson, Barrow & Sander, 2007). CCSS indicate that assessments drove the development of the standards (Benchmarking for Success, 2008; Mission, Goals, and Benefits, 2011). Unfortunately, the actual assessments are not available which means that the standards were developed from a framework of what the assessment could look like in the future and not the actual assessment (“PARCC Field Test”, 2013; “Practice and Pilot Tests”, 2012).

Impetus for Change.

The actions of the policymakers who passed the bill in New York serve to exemplify an ongoing problem with education. Current research and educators are seldom the driving forces behind changes to school systems and persons who have little educational training or experience are. A change in teacher practices (strategies & techniques) takes a persistent rigorous training effort (Sawchuk, 2012). This may be why Ohler (2001) opined that educators are always in search of themselves. He suggests that it is policymakers who are to blame for the ills of education in the United States. These policymakers continually come out in favor of new educational trends and sometimes allow politics to take it to the extreme where it is no longer effective. These same policymakers then voice their opposition to the failed educational change and move on to the next big thing in education before those who must implement the change have even had the time to flush out the details of the last great educational change (Ohler, 2001). Tienken & Zhao (2010) feel the issue surrounding CCSS implantation is simply a matter of corporate appetite. In their writing they posit that corporate profit margins and not instructional need has fueled this latest educational change.

To gain a better understanding of policies on education in the United States we can contrast the actions of United States policymakers with those of policymakers in Finland. Recent top scores on the Programme for International Student Assessment (PISA) test have countries around the world looking carefully at the educational strategies of Finland and other top scoring countries. Following is a list of some of those strategies: Finnish students spend less time in class than students in the United States. This also means Finnish teachers spend less time in class than their American counterparts which leaves Finnish teachers with extra time to build curriculum and assess student needs, and Finnish students are given more opportunities to play outside, even in Finland’s long winter. All selected teachers in Finland are offered a free fifth year of college to get a master’s degree and

only the top ten percent of university students are admitted into teaching programs. Other top performing countries also select only top graduates to become teachers (Barbour & Mourshed, 2007). The staff to student ratio is seven students for each adult and Finland spends less per pupil than the United States (Hancock, 2011). The most significant differences may be in the Finnish philosophy of education. In this philosophy students are not prepared to take a test but are prepared to learn how to learn (Hancock, 2011). Finnish educators claim that they do whatever it takes to turn young lives around as evidenced by nearly 30 percent of Finnish students receiving some sort of extra help before their tenth year of school (Hancock, 2011). Additionally, Finnish educators do not seem to be in a hurry and prefer to take their time and see undue pressure on students to learn and take tests as counterproductive to their growth and success (Hancock, 2011). Contrast this with CCSS strategies that are already being called into question (Strauss, 2013b). Strauss (2013b) explains that Finnish students are encouraged to engage in math because it is satisfying and can help them solve problems. The Finnish emphasis on making math useful because useful can be fun while learning devoid of fun can become drudgery (Mainemelis&Ronson, 2006).

The Importance of Teachers.

So then what parameters does research identify as important when looking at improving student achievement? Barbour and Mourshed (2007) took a close look at what countries with higher achieving students, like Finland, were doing. In their analysis they present three things that stood out in high performing school systems: first, the right people become teachers, second, these people are properly prepared to become effective teachers and finally systems and targeted support are used to help all students profit from outstanding teaching (“Lessons from High Performing”, 2011). They explain that an educational institution cannot exceed the quality of its instructors. Collins (2001) also found that this was true for employees in successful businesses. Additionally, students develop up to three times faster when they are placed in the classrooms of the best teachers (Collins, 2001). The stakes are high because they also found that young students seldom recover from inadequate instruction, especially when inadequate instruction is encountered year after year. Increases in student performance are unlikely if these three essential needs are ignored. This sobering fact ought to compel all educators to work towards improved teacher selection and training and may help to explain why policymakers feel compelled to enact change in education, often without sufficient input from research and education professionals. These new policymaker paradigms are enacted while teachers are still working out the kinks in the last great educational strategy which has made many experienced teachers wary of change for the sake of change (Ohler, 2001).

The best teachers are experienced and will persevere. Conversely, inadequate teacher training programs have led to the loss of new teachers shortly after they begin to teach and before they have gained enough experience to develop perseverance (Berry, Montgomery & Snyder, 2008). Teaching experience is the most important factor in overall teacher effectiveness, trumping education major, graduate level training and university attended (Chingosa & Peterson, 2011). If teacher experience is of such importance it makes sense that well prepared teachers are critical in the process. Teacher literacy, numeracy, relational communication skills and openness to learn new things are keys to their becoming effective instructors (Barbour & Mourshed, 2007). In teacher preparation student teaching has the greatest impact on whether a teacher thrives or fails and multi-year mentoring programs provide the greatest benefit to teachers and students (Berry et al., 2008). New teachers are less effective in their first years of instruction (Chingosa & Peterson, 2011). However, it makes no sense to abandon beginning teachers as they start their careers when what is needed is time to practice what they have learned and grow into an authentic professional (Barbour & Mourshed, 2007).

Improved instruction and high student standards produce the best results (Barbour & Mourshed, 2007). CCSS implementation will fail should teachers be given cursory professional development that does not provide precise information on how to implement the new standards (Barbour & Mourshed, 2007; Sawchuk, 2012). Research indicates that a change in teaching practice takes a persistent rigorous training effort (Sawchuk, 2012). Expecting changes to occur in instructional techniques simply because standards have changed is a faulty action theory (Barbour & Mourshed, 2007). Teachers worry that they will not be able to provide the types of assessments which policymakers seem to expect (Sawchuk, 2012). This can lead to lower teacher self-efficacy. Teachers with lowered self-efficacy are less willing to experiment with changes (Evers, Brouwers, & Tomic, 2002). Repeated changes to educational policies has led many educators to become cautious of change resulting in a reluctance to implement suggested strategies in their classrooms due to a hesitancy to commit to yet another untested change (Sawchuk, 2012).

III. Principal Difference.

If linking student achievement tests to educator evaluations is not supported by research, what is? Principals are the second most influential stakeholder when it comes to student learning (Barbour & Mourshed, 2007). Academic literature indicates that strong highly qualified teachers lead to the highest gains in student achievement (Boyd, Lankford, Loeb, Rockoff & Wycoff, 2008). Policies need to be designed that allow for accurate evaluation of individual teacher assets and limitations so professional development efforts are precisely targeted to each instructor (Boyd et al., 2008). The principal at each site can play an important role in teacher growth. Jacob and Lefgren (2008) found that using principal evaluations to target instructor effectiveness is a viable way to identify the strongest and weakest teachers. They suggest that the principals' ability to observe both input and output make them more effective at predicting student achievement than the traditional practice of looking at the teachers' education and experience. Incorporating principal assessment of teachers into the determination of how effective a teacher is can also alleviate concerns that teachers will teach to a test in order to get higher evaluative marks (Jacob & Lefgren, 2008). The most effective principals spent a majority of their time refining instructional strategies and techniques while they modeled attitudes and competencies that served to motivate their staff (Barbour & Mourshed, 2007).

Principal evaluations are not devoid of problems. Under the current educational system most American teachers tend to search out pleasant educational settings while parents search out the best schools. This has led to the aggregation of the best teachers at the best schools so that high-achieving students are being taught by the best teachers (Clotfelter, Ladd & Vigdor, 2006). Rothstein (2009) posits that when high stakes testing is used teachers will lobby for students who are high achieving so that they can maximize their test scores and obtain greater rewards. This system can lead to an environment of favoritism wherein principals bestow their favorite teachers with the best students in exchange for teacher acquiescence on administrative projects and directives (Rothstein, 2009). Policymakers do seem to understand this as they have suggested that multiple evaluative measures should be used to determine overall teacher effectiveness (Duncan, 2011).

IV. Discussion

The dichotomy that can exist between the stakeholders involved in change may impede the change process. This can be averted if stakeholders are allowed sufficient time for the changes to take place and they are prepared for change implementation. Educators need time to implement changes so that they can research, identify and use 'best practice'. This is contingent upon the use of relevant research which can guide both sides in this process. Students deserve great teachers properly prepared, fairly compensated, and evaluated for everything they offer to their students and not just student achievement on a single standardized test.

As educators around the United States make the switch to CCSS it is important to remember that good teaching techniques do not change. What changes are the strategies that are being used to implement the changes. Educators who are confronted with changes are able to transition without loss of instructional efficacy when they continue to use effective teaching techniques. As teachers around the country begin to implement CCSS they have an opportunity to search out relevant strategies based upon educational principles. The strategies they select to guide their instruction can help to put them on a path towards both CCSS and more importantly student engagement and excellence. Engaged students will make the leap from rote shallow learning to deeper understandings of the content. This process requires expert guidance from well prepared, supported educators who continually search out strategies capable of helping the learner succeed.

Educational policy is constantly changing even while good teaching techniques stand the test of time. This reality can be conceptualized through the visual of a playground teeter totter. A teeter totter uses a fulcrum. The fulcrum is at the center of a long board that travels up and down. Educators that are confronted with change balance those changes with the students need for quality instruction. The teeter totter of policymaker directives often results in extreme educational changes. These changes can be compared to a teeter totter ride in that they produce a tremendous amount of up and down movement but lack the balance found closer to the fulcrum. Often policymakers push for educational fixes only to end up on the extreme end of the board where devastation lurks and highs are short-lived (Ohler, 2001).

The best teachers will slowly move towards either end of the fulcrum testing the efficacy of strategies proactively before implementing changes that can lead to extremes. These careful movements are made by teachers who have become authentic professionals through continued professional learning and understand that new strategies must be tested for 'best practice' and tempered by student needs before implementation. These authentic professional teachers welcome the acquisition of new skills and understandings that can help them become even better instructors (Collins, 2001). CCSS indicates that as simple standards they do not dictate how to teach but do clarify what the goals, expectations, knowledge and skills today's students need to know are

(“Common Core”, 2010). This view of CCSS will allow educators to devise lessons that are well suited to the diversity of learners they encounter in their classrooms. As authentic professionals, educators often stand in the gap between policymaker rhetoric and informed action.

CCSS should not be interpreted as a call to abandon the teaching techniques that have proven effective in the past. When ‘best practice’ already exist and techniques have proven to be effective, educators need to continue to implement and build on these practices and techniques (Resmovits, 2013). Changes to good instruction should lead to great instruction not simply more good instruction. Changes to content standards should be accompanied by strategies to meet the need for quality teachers who are well-prepared, capable, and committed to continued professional growth. When confronted with change, today’s learners can and will be prepared and capable of entering college and the workforce with a solid educational base. This is best achieved when educators and policymakers remain focused on the needs of the learner and base their decisions on evidences that are steeped in research and proven teaching techniques.

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