

Using the Interdisciplinary Approach to Education to Meet the Literacy Standards in the  
Common Core: and Ensuring Graduates are College and Career Ready

By

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## Abstract

The implementation of the new Common Core State Standard Initiative (CCSS) warrants changes to current curriculums. This paper establishes the interdisciplinary approach to education as an effective method of instruction for the delivery of the new standards. The CCSS define literacy and college and career readiness anchor standards that students must meet in order to be successful post-secondary. The new English language arts (ELA) literacy shifts include: literacy instruction, content area vocabulary, increase in non-fiction or information texts, increased text complexity, and 21<sup>st</sup> century skills are all successful skills to be taught using the interdisciplinary approach and team teaching. The paper establishes a definitive basis for students to have these skills in order to be considered college and career ready in accordance with the new Common Core state standards. This approach can include collaboration, thematic units, cross-curricular projects, or integrated in order to meet the standards.

I.

## STATEMENT OF THE PROBLEM

The purpose of our education system is to transfer knowledge to America's youth and prepare them to contribute to our democratic society. For decades this country's educational system has been declining. There have been many attempts at legislation to raise achievement in public schools including the *Elementary and Secondary Education Act of 1965* (ESEA) and *No Child Left Behind* 2001 (NCLB). Regardless of federal legislation, the necessary components of education have only varied slightly over time.

Unfortunately, throughout the history of education, many experts have disagreed and debated about the most effective way to educate students. The current belief is that the best practice and most popular method for educating students is subject based curriculum. Most professionals are opposed to the interdisciplinary approach to instruction. This approach to education is considered controversial because it requires additional time and resources. On the surface it may seem like the interdisciplinary approach to education requires more effort and work on the part of educators. The common belief is that integrating subjects may be time consuming and require them to do extra work. Most teachers are content with their current method of instruction. They do not want to have to learn new methods of teaching or become experts in new subject areas. Educators prefer the isolation of their own classroom and their current teaching practices. The idea of a new curriculum and having to collaborate or team teach sounds intimidating rather than beneficial to them.

The efforts to improve the educational system include ever changing standards and curriculums; the newest effort is the Common Core State Standards. The Common Core does

not explicitly outline the method for how educators have to teach these new standards. According to the Common Core, “the standards are building blocks for successful classrooms, but recognize that teachers, school districts and states need to decide on appropriate curriculum” (NGA&CCSSO, 2010). Therefore, it is at the discretion of the educators which method of instruction is best suited for the new standards. Unfortunately, with the upcoming reforms there is undoubtedly going to be changes to the way instruction is delivered. Grade level benchmarks are changing and teachers will possibly be expected to teach content they are unfamiliar with. As a result, there will certainly be modifications to instruction. The aforementioned perceptions fail to take into account that teachers may already be incorporating this interdisciplinary approach without even acknowledging they are doing so.

The Common Core establishes specific criteria for literacy in all grades K-12. Some standards in ELA and literacy include attention to academic vocabulary that occurs across disciplines or “tier 2 words”. The Common Core’s shift also includes an increase in literacy in subjects such as history, science, and technical subjects. This increase in literacy across the subjects is significant (NGA&CCSSO, 2010).

The new Common Core State Standards outline benchmarks that students are expected to meet by each grade level. These benchmarks may differ completely from previous years. For instance, teachers who have been teaching sixth grade mathematics may be expected to teach content they never have before. This would be an opportune time to collaborate with other professionals in the building as well as colleagues in and outside of one’s discipline. Perhaps by rethinking our approach to education, we can accommodate all learners.

## SIGNIFICANCE OF THE PROBLEM

The newest education initiative is the Common Core State Standards. While these standards provide a framework for what students are expected to know by the end of each grade level, what this initiative fails to do is provide a precise method of delivery for these standards. A goal of the Common Core State Standards is to produce students who are “college and career ready in reading, writing, speaking, listening, and language” (NGA&CCSSO, 2010). Teachers can utilize the Common Core standards, which outline a framework for college and career readiness with literacy as a building block. There are many components in order to ensure that students are meeting literacy benchmarks. The new standards incorporate literacy across content areas. There is an increased focus on literacy instruction in all grades K-12, with literacy instruction in history/social studies, science, and technical subjects. Unfortunately, many subject area teachers are not trained or prepared to teach literacy in their subject areas, let alone meet literacy benchmarks.

Common Core State Standards state that students should be to be able to get information from print and digital sources. In order to meet the benchmarks, students need to have 21<sup>st</sup> century skills, be able to read and comprehend complex texts, have self awareness, be knowledgeable in content areas, and be able to express ideas in a variety of ways. There is an array of anchor standards for college and career readiness in the Common Core relating to literacy and 21<sup>st</sup> century skills. For example, the standard requires students should be able to “use technology, including the internet, to produce and publish writing and to interact and collaborate with others” (NGA&CCSSO, 2010). It is a goal of the common core to prepare students who are able to compete in the global economy. Unfortunately, many American schools do not have the resources to instruct teachers or students in 21<sup>st</sup> century skills.

According to educational theorist Howard Gardner, “We live in a time of vast changes that include accelerating globalization, mounting quantities of information, the dominating influence of science and technology, and the clash of civilizations. Those changes call for new ways of learning and thinking in school, business, and the professions” (Gardner, 2006). When it comes to the state of education, we must adapt to the ever changing society. The United States is no longer the number one industrialized nation. In order for students to compete in a global economy and society, they need an education that prepares them to do so.

## PURPOSE OF THE STUDY

The purpose of this study is to establish a best method of instruction for the Common Core State Standards. As of the 2012-2013 school year, this set of standards has been adopted by 48 states, 2 territories, and the District of Columbia (NGA&CCSSO, 2010). The standards stipulate a comprehensive list of “goals and benchmarks to ensure students are achieving certain skills and knowledge by the end of each year” (NGA&CCSSO, 2010). The Common Core does not include a description of how teachers or school districts are intended to deliver instruction. Therefore, the individual lesson plans and the needs of students are still at the discretion of the educators.

There is research to support that the interdisciplinary approach to education is an effective method of instruction for literacy instruction across content areas. The Common Core State Standards initiative places an increased focus on literacy instruction compared to previous state standards. For example, the Common Core establishes literacy standards for subjects such as history, science, and technical subjects. One goal of this thesis is to determine if the

interdisciplinary approach to education is an effective method of instruction for literacy in multiple content areas.

A second goal of this thesis is to determine if the interdisciplinary approach to education is an effective method for teaching digital literacy or 21<sup>st</sup> century skills. The Common Core State Standards create a foundation on the idea that students need to be able to create and interpret information from abundant sources. For example, an eleventh grade reading standard requires students to “integrate and evaluate multiple sources of information presented in different media or formats as well as in words in order to address a question or solve a problem” (NGA&CCSSO, 2010).

A third goal of this thesis is to determine if the interdisciplinary approach to education is an effective method of instruction for teaching college and career readiness. The Common Core was developed very carefully with the grade level standards and college and career readiness standards to align. Key consideration was placed on both college and career readiness and literacy instruction. The two elements that make the Common Core distinct from any previous standard movement are the focus on literacy instruction and college and career readiness. The overall goal of this thesis is to determine if the interdisciplinary approach to education is a more effective method of teaching the Common Core than the current best practices. As a result, the interdisciplinary approach would also be an effective method of instruction for literacy instruction, teaching 21<sup>st</sup> century skills, and preparing students for college and career readiness. For the aforementioned reasons, these are all essential components of the Common Core.

## RATIONALE

The interdisciplinary approach to education is the best method of instruction for teaching the Common Core State Standards. This approach to education is a holistic method of instruction, teaching themes rather than fragmented subjects. This method of teaching also encourages collaboration amongst professionals including teachers and educators from multiple disciplines.

The Common Core State Standards have an increased focus on literacy instruction. The interdisciplinary approach is an ideal method of instruction for teaching literacy. For example, the focus on themes, critical thinking, and inquiry based instruction is the focus of interdisciplinary learning. This type of learning is essential in literacy instruction and is the foundation of the Common Core State Standards and is the focus of this thesis.

## LIMITATIONS, ASSUMPTIONS, AND DESIGN CONTROLS

As the author of this paper, I am making certain assumptions about the current educational system. Currently, in the United States there is no national curriculum and the Common Core only outlines standards for education. As a result, based on my research and my knowledge of education, the assumption is that prior to the full transition to the Common Core, the most widely accepted best practice for instruction is subject based curriculum.

The Common Core state standards go into full effect in the 2013-2014 school year. As a result, for all intents and purposes of this paper, there is no definitive research on the full effects of the standards thus far. In addition, the Common Core does not define specific instructional methods for how educators must meet the new standards.

## DEFINITION OF KEY TERMS

Some key terms that may be directly related to my research and are essential when reading this paper are defined below.

**Collaboration.** When educators or teachers work together to design a curriculum or to team teach instruction.

**College and Career ready standards.** Content standards for kindergarten through 12th grade that build towards college- and career-ready graduation requirements (as defined in this document) by the time of high school graduation. A State's college- and career-ready standards must be either (1) standards that are common to a significant number of States; or (2) standards that are approved by a State network of institutions of higher education, which must certify that students who meet the standards will not need remedial course work at the postsecondary level.

**Common Core.** The Common Core State Standards provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers. With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy (NGA&CCSSO, 2010).

**Cross Curricular.** This term applies to the “the knowledge of one discipline applied to another” (Vance, 2010, p.21).

**Digital literacy.** Having the ability to “use technology, including the Internet, to produce and publish writing and to interact and collaborate with others (NGA&CCSSO, 2010).

Literacy. The Common core defines Literacy as the “ability to read, write, speak, listen, and use language effectively in a variety of content areas,” as well as meets the standards of college and career readiness in said content areas (NGA&CCSSO, 2010).

Multimodal literacy. The “integration of multiple modes of communication and expression can enhance or transform the meaning of the work beyond illustration or decoration” (NCTE, 2010).

Integrated curriculum. This is the method of using one theme in order to teach multiple subjects. This is another term for interdisciplinary instruction, which also merges content areas.

Interdisciplinary approach to education. This is an approach to instruction that incorporates multiple content areas. This theory can also involve a holistic method of teaching and collaboration between teachers or team teaching.

Scaffolding. The notion that certain supports need to be in place in order for effective instruction to occur. I.e. Activate prior knowledge, modeling, anticipatory set.

Subject-based curriculum. Currently, the most widely used method of instruction. This curriculum involves teaching subjects in a departmentalized manner.

Thematic Unit. A unit that has lessons based on specific themes. This may cover many or all core subjects. It is frequently used as a replacement method instead of teaching social studies sequentially.

## SUMMARY

The United States is constantly adapting its educational system to meet the growing needs of the changing world. The newest modification is the Common Core State Standards, which outline standards for literacy within the content areas to ensure that students are college and career ready. These standards do not outline specific methods of instruction; rather they provide

an outline of skills that need to be met to ensure the United States can compete in the global economy. The purpose of this thesis is to prove that the best method of instruction for the new Common Core State Standards would be the interdisciplinary method of instruction. The rationale for this method of instruction incorporates multiple disciplines, and is taught in a holistic manner.

Interdisciplinary instruction and its methods are best suited for literacy instruction. The rigorous Common Core State Standards have an increased focus on literacy instruction in all of the content areas. The following chapter is a literature review of what was studied thus far and what remains to be studied on the topic of interdisciplinary education.

## II. LITERATURE REVIEW

### INTRODUCTION

In the fields of primary, secondary and higher education, approaches to restructuring teaching and learning have been proposed as far back as 1929. Unfortunately, many of those first attempts failed to endure. Currently, with increased stress being placed on standardized test scores and teacher performance, there has been a shift back to restructuring. One example includes the institution of the Common Core State Standards initiative. Two ideas for proposed changes include adaptations to curriculum and the way the instruction is delivered. For example, the interdisciplinary approach to education “explores how ways of thinking in each subject can support simultaneous progress in those subjects as well as provide students with new insights” (Woodcock, 2010, p.8).

There are a number of terms that are used interchangeably when discussing the interdisciplinary approach to education, although the terms vary slightly. Each term accounts for many similarities. A list of some of the terms that may be used in conjunction with interdisciplinary may include, but are not limited to, thematic approach, integrated curriculum, and cross curricular (Putwain, 2011, p.388). The purpose of this review is to show that the most promising approach to educating America’s youth is integrating the subjects, teaching in a holistic manner with an emphasis on project work and thematic instruction (Putwain, 2011, p.388-389). The focus of this chapter is to examine if the research thus far proves that the interdisciplinary approach to teaching is more effective than the currently used practices.

## HISTORY

The earliest developments of interdisciplinary education can be traced back to the 1930's. Ruth Mary Weeks, the 19th president of the National Council of Teachers of English (NCTE) and the second woman president of NCTE, was well before her time. According to Bordelon 2010, Weeks' attempts to reform education into a more collaborative process in order to accommodate the needs of a changing society were not fully recognized. Weeks' innovated, *A Correlated Curriculum* (1936) for the NCTE. According to Weeks, the subject of English was the avenue through which to implement this integrated curriculum. For example, Weeks believed "each department had a responsibility to enhance students' understanding in reading, writing, and speaking" (Bordelon, 2010, p.265). Ruth Mary Weeks saw English as a basis for integrating multiple disciplines. She also sought to create a more holistic approach to education with literacy as a building block. Weeks' notion of the English subject placed a stronger emphasis on reading, writing, and speaking over literature (Bordelon, 2010, p.265). Weeks was able to recognize the importance of literacy instruction not only in English, but within the other disciplines. Unfortunately, many of Weeks' pedagogy were decades before her time and her colleagues disagreed with her ideologies. Many subject area teachers were opposed with the idea of focusing on literacy instruction within their specific discipline. However, retrospectively, her ideologies can be seen as the beginning stages of the shift from English subject to literacy instruction. Weeks was well before her time with her ideas of using English and literacy as the means to bridge gaps in all disciplines.

## CURRENT PRACTICES

There are many different theories for successful education. Currently the accepted approach to teaching is the “traditional subject-based model of delivery” (Putwain, 2010, p.387). The constant pressure of standardized and high stakes testing in subject based curriculum does not seem to be cutting it. With the upcoming shift to the Common Core State Standards, “the need for increasing student test performance has resulted in the reappearance of a collaborative effort to reinforce key components across the curriculum” (Vance, 2010, p.21). There are several models for accomplishing interdisciplinary curriculums. The most common practices include thematic instruction or the occasional cross-curricular project. Usually the pairings for these projects include math with science or English with history. This is because their subjects are best suited for meaningful integration. According to the National Council for Social Studies (NCSS), there is valid reasoning for implementing integrative curriculum units in education (Lee, 2007, p. 159). Research suggests that “teachers may already be integrating curriculum without realizing they are doing it” (Lee, 2007, p. 159).

Current educational practices fail to account for essential 21st century academic skills including media literacy and digital literacy. Interdisciplinary education can help create meaningful collaborations between all content area teachers while incorporating technology. According to Vance 2010, in referring to the current state of education, although teachers claim to work diligently at creating a “learning community”, the primary focus is their subject area and this is the status quo. Important team collaborations in 21st century classrooms should not be limited to content area teachers. It is essential to integrate “school librarians, technology instructors, remediation specialists, foreign language teachers and others” (Vance, 2010, p. 22).

In order to ensure students are college and career ready, they need to be literate in a multimodal world and successful collaborations amongst all disciplines can be most beneficial.

Current educational practices of subject based delivery fail to integrate the important subjects that students need to be successful in a 21st century world. Integrating subjects such as technology, art and music, for example, can build upon students' prior knowledge. Technology allows for student engagement and student choice which "invites the interested students to do extra work, something students rarely do when assignments are without choice" (Vance, 2010, p. 21). When students are actively engaged in what they are learning, they will be more motivated to learn. They may even go beyond what is expected of them and be active participants in their educational process.

Teachers of all disciplines need to be able to utilize the current technology that is available to them to be fluent enough to implement it throughout their curriculum. Many teachers still do not feel extremely comfortable with using technology in the classroom. This roadblock to implementation must be overcome in order for teachers to better prepare students for college and career readiness. The Common Core State Standards puts such a marked focus on technology that it is absolutely imperative for educators to be proactive in becoming well versed in the use of all different types of technology.

## INTERDISCIPLINARY

The basis for interdisciplinary learning is that if implemented correctly, it should increase student engagement and also enhance students understanding of concepts across the curriculum. For instance, students should make links between subjects and knowledge from one subject area which should supplement their understanding in the other content area(s). It is a logical

conclusion, based on most of the empirical data, that some subjects are better suited for meaningful integration than others. A study conducted by the Historical Association examined teaching a Dickens' novel in conjunction with teaching 19<sup>th</sup> century British history. "The impact on motivation and achievement was high" (Monaghan, 2010, p.19). This cross-curricular project proved that interdisciplinary instruction helped keep students engaged and furthered their understanding in both content areas.

Current approaches to literacy and technology are making it much easier to successfully integrate subjects that previously would never have been integrated. Literacy strategies are being integrated successfully into all disciplines. In *A Strange and Wonderful Interdisciplinary Juxtaposition: Using Mathematical Ideas to Teach English*, Byung-In Seo writes about the aforementioned irony. The previous notion that the only interdisciplinary pairings were mathematics with science and history with English no longer exists. Seo points out that math and English are more similar than most people imagine. For instance, both subjects have a strong focus on terminology, structure and processes. Seo observed that "scripted longhand and mathematics use similar paragraph structures to convey extended meanings" (Seo, 2009, p.263). Seo concludes that although many English teachers are not masters of secondary math, they can certainly become more familiar with the content and then incorporate the similarities between the two subjects into their English curriculum.

Interdisciplinary approach to education can be implemented as a curriculum, projects, units, and more. Interdisciplinary curriculum can be mutually beneficial for students and educators. Educators are given the ability to "experiment with a new area or to gain more expertise in an area with which he or she is already familiar" (Lee, 2007, p. 159).

There are various ways to incorporate interdisciplinary learning. One way to incorporate this methodology that can be beneficial to both students and educators is through cross-curricular projects. This type of instruction is ideal because it does not involve a complete transition to a new curriculum, but allows for the meaningful connections to be made between different content areas. For example, it allows students “to explore how ways to thinking in each subject can support simultaneous progress in those subjects, as well as provide students with new insights” (Woodcock, 2010, p.8). Using key information from two or more content areas in a project can help enhance student understanding on a given topic. This type of thinking can be more critical and result in enduring understanding on the given topic. These types of projects should encompass important information from the included disciplines.

## COLLABORATION

All approaches to instruction require extensive planning and the interdisciplinary approach is no different especially because it may entail a great deal of collaboration. When teachers collaborate with colleagues in different disciplines, it is important to ensure their work is mutually beneficial (Woodcock, 2010, P.9). Some things for educators to remember when team teaching includes: planning time, learning goals, and respecting one another. When the experience is over, the collaborating teachers should review, reflect, and make adaptations in order to make improvements. In an ideal situation, being a good collaborator, “is knowing exactly what is going to happen and what your own contribution is going to be” (Creese, 2010, p.102).

Collaboration across disciplines is also mutually beneficial. Many educators say they do not feel adequately prepared to teach thematic units or literacy instruction. The interdisciplinary

approach to education or integrated curriculum accounts for these concerns. When educational professionals collaborate successfully, both of them can benefit from the partnership. A teacher should recognize his or her colleagues' expertise and vice versa. In order to be a successful teacher, one should "exploit teacher's skills and knowledge in the aspects of the project most alien to you" (Woodcock, 2010, p. 9). There is always value in working with a colleague. It also helps to prevent teachers believing that they need to constantly reinvent the wheel. By tapping into the knowledge of their peers, it not only benefits the teachers but the students as well.

Successful collaboration does not just have to be between classroom teachers. Educators should tap into all the resources currently available to them. With the upcoming Common Core shifts in both literacy and 21<sup>st</sup> century skills, a classroom teacher's greatest support may very well be the school librarian. For decades, librarians have aided teachers for research, projects, gathering pertinent information. On the student side of it, librarians have helped students find the materials they require for classroom assignments. Librarians "are adept at collaborating with content area teachers to provide meaningful context for the inquiry skills that they impart to students within the research projects attempted" (Stafford, 2011, p.9). It is true that the new Common Core requires students to meet benchmarks in literacy and 21<sup>st</sup> century skills and calls for this instruction to be a shared responsibility within the school community. Librarians should be utilized as much as possible in this process because of how proficient they are in both literacy and media skills. It is in every teacher's best interest to utilize this very valuable "tool" whenever possible.

## THEMATIC APPROACH/INTEGRATED CURRICULUM

The thematic approach to curriculum can be beneficial to schools and teachers because it allows for schools and teachers to be flexible. The foundation of a thematic curriculum are based around the idea of a holistic approach to teaching where teachers can incorporate real world issues, subject area instruction, and project work. There are many key components to successful thematic instruction. According to Putwain, there are “six characteristics of non-subject based curriculum: combining different subjects, emphasizing project work, using sources that go beyond textbooks, emphasizing holistic relationships among concepts, organizing the curriculum around themes and flexibility in schedules and/or student grouping” (Putwain, 2010, p.388-389).

MaryAnn Davies (1992) outlines ten guidelines that she suggests are essential for developing a thorough and successful integrated unit. To summarize, she believes that the teacher should choose relevant topics and build the thematic unit using a variety of activities. This allows the students to have more input and they are more motivated because they have a sense of ownership of the project. She also believes that field trips provide students with experiences that go beyond the vicarious experiences that they have in the classroom.

A prime example of a thematic unit would be the American Revolution. Michelle Lee (2007) devised a unit that was composed of nine lessons. These nine lessons incorporated history, science, math, ELA, art, music, physical education, geography, sociology and religion. The lessons were engaging and cross-curricular in nature. Her entire integrated unit used “computer technology as a blanket strategy” (Lee, 2007, p. 160).

Lee’s integrated unit is a prime example of how a teacher who uses a plethora of content areas helps increase student motivation while also improving the skills needed to be successful.

The skills acquired are not limited to content abilities but also 21<sup>st</sup> century skills and the arts. In utilizing as many different modes of technology as possible, the chance of reaching more students increases. No two students learn the exact same way. By incorporating a multitude of activities, the teacher is more able to educate those students who do not learn the traditional way at a much greater rate.

## EMPIRICAL FINDINGS

Without any regard to interdisciplinary education, educators are still being held responsible for supporting their students in content area literacy. This push to integrate reading and writing into disciplines formerly with little to no writing is a big change (Wilson, 2011, p.435). Many content area teachers do not feel they have the necessary training to provide that type of instruction. In researching the interdisciplinary approach to education, studies showed that there are various ways to incorporate literacy instruction in the classroom. Content area teachers, including English teachers, have so many resources at their fingertips. The key is to implement these resources into the curriculum in a more meaningful and beneficial manner.

The social semiotics perspective is a theory that “a text can be any instance of communication that is used to convey meaning” (Wilson, 2011, p. 436). This can include, but is not limited to minerals, maps, menus, recipes, and instruction manuals. In the social semiotics method, teachers should use multiple ‘texts’ in their lessons in order to complete their lesson goals. For example, when they are teaching a single lesson they should incorporate lecture, hand gestures, and 3D models. This perspective not only accounts for interdisciplinary learning and content area literacy, but also accounts for Howard Gardner’s theory of Multiple Intelligences.

The previous conceived notion that all students can learn the same material in the same way is no longer. According to theorist Howard Gardner, students possess different types of intelligences. Some students learn better in different domains. Using different methods of instruction and teaching themes can help account for multiple intelligences. The American Revolution thematic unit is a prime example of how a teacher can adequately teach a class of students with various learning abilities using multiple methods. Lee utilized multiple disciplines throughout the unit that would better provide students with effective instruction and addressed all intelligences.

English teachers need to help prepare their students for success post-secondary by ensuring that their students are both digitally literate and multimodal. English teachers are aware of the relevance of integrated curriculum. One meaningful tool for the integration of literacy instruction is an English sketchbook. The students use their sketchbook in collaboration with art and English. According to Leigh (2012), this sketchbook is used for drawings and signs as well as for creating ideas for writing and revision. The sketchbook is a type of journal for reflective writing by the students. The “use of sketchbooks is a new practice that can have an important role in helping students experience the magic of language by exploring art and language together” ( Leigh, 2012, p. 540). This integration of art and English can be a powerful collaboration for many students who struggle with writing. Using art to enhance writing will undoubtedly help those students who are more visual learners. Sketchbooks also help students be more creative and use more of their senses. At the same time, it also helps teachers learn more about how each student learns and the teacher can then tweak future lessons to include more activities to reach these students.

The new Common Core State Standards place an increased emphasis on the importance of literacy in all content areas. Some ways to foster student learning in content area instruction include: providing explicit vocabulary and comprehension strategy instructions, opportunities for extended discussion of text meaning and interpretation, and increased motivation and engagement in literacy learning (Friedland & McMillen & Hill, 2011, p. 57). According to the research, in order for students to best express themselves in math and science, this requires collaboration with language arts instructors (Friedland & McMillen & Hill, 2011, p. 58). Content area literacy is essential to students' success in secondary education and higher education. Students are no longer being expected to just be able to write about math and science. Students are now expected to be fluent in the language and vocabulary of math and science. "Good content writing is the result of quality instruction" and good instruction is collaborative (Ediger, 2012, p. 37). Traditionally, English teachers very rarely, if ever, collaborated with math and science teachers. It is now essential that these teachers collaborate with each other in order for the students to meet the standards in regards to fluency in language and vocabulary in all disciplines.

The new Common Core State Standards are placing a great deal of focus on literacy, but this is nothing new because "in current educational policy, content-area teachers are expected to include relevant literary practices within their disciplinary instruction" (Boyd, Sullivan, Hughes, 2012, p.18). The shift is towards literacy instruction across disciplines. In addition to content area literacy, students are expected to be digitally literate and globally aware. Teachers need to help students make local and global connections in the classroom in order to be successful in this ever increasing global economy. The Common Core is the next step in state standards which

holds teachers and students accountable in the classroom to meet the growing needs of employers in the United States.

## COMMON CORE

In the history of education there have been many attempts at reforming education in order to better meet the needs of students. Some examples in education legislation in the United States have included the Elementary and Secondary Education act 1965 (ESEA), No Child left behind 2001 (NCLB), and the Individuals with Disabilities Education act (IDEA). These endeavors aim at equalizing the playing field for all students. Unfortunately, these acts did little to increase student achievement and create equity collectively. For example, NCLB 2001 “required all students to reach ‘proficiency’ in reading and math by 2014, but it left it up to state to create their own standards and tests and to determine what constituted proficiency” (Rothman,2012,p.59). Consequently, what was being defined as achievement and college and career readiness was varying from state to state.

In a country built on states’ rights, the United States education system has failed to establish a national curriculum, but instead each state has consistently defined their own educational standards. With this in mind, the Common Core was created by state leaders to establish a set of uniform educational standards for the country. The federal government had no involvement in the development of the standards and state participation was not mandated and still a majority of states have adopted them .Currently 45 states, 4 territories, and the District of Columbia have adopted the Common Core State Standards (NGA&CCSSO, 2010).

The standards are based on states with the highest educational standards and countries that consistently outperform American students (NGA&CCSSO, 2010). The overarching goal is

to prevent fluctuating levels of achievement among students post-secondary. Although the objective is to equal the playing field and prepare all students for college graduation and career readiness, no state was asked to lower their expectations for students. The core was created with the intention of instituting a universal set of standards for college and career readiness. A shared set of standards will better prepare students for the future and be successful postsecondary.

#### QUESTIONS FOR FURTHER RESEARCH

There exists a lot of opposing views to integrated curriculum and interdisciplinary instruction. One argument presented was that successful integration does not occur automatically (Lee, 2007, p. 160). No successful instruction occurs automatically; all lesson plans need to be planned out and many of them are very time consuming. However, by the use of collaboration, teachers can make their lessons more meaningful and beneficial to all the students regardless of the discipline in which they teach. A second argument is that cross curricular connections may be contrived. As a result, the concepts may be vague which makes it more difficult and requires students to perform tasks above their ability. Thirdly, is the cost of this type of instruction; adversaries of integrated curriculum question who will pay for this new curriculum. The final opposing argument directly relates to those who are resistant to educational reform. These people include parents, teachers, school board members and taxpayers. As new teaching methods develop, numerous people disapprove of change regardless of the implications. It may be because they are not familiar with these new standards making them feel uncomfortable with how the standards are being implemented.

## CONCLUSION

Overall, in most of the research found there is a definitive basis shown for literacy instruction in all content areas. Literacy instruction has an obvious importance especially with the new Common Core State Standards. Common Core includes an increased emphasis on reading and writing in all subject areas, as well as new standards aimed at college and career readiness.

According to the sources gathered, the interdisciplinary approach to learning, when implemented, is beneficial. It “helps to promote student excitement about a topic by presenting it with new and interesting methods” (Lee, 2007, p. 163). Lee (2007) also stated that the positive aspects of integrative curriculum far outweigh the opposing views. Although there was much empirical data on the benefits of the interdisciplinary approach to education, there was a lack of qualitative data. For example, a 2011 single school study on thematic versus subject-based curriculum achievement determined “that the motivational advantages for thematic-based curriculum are at best extremely limited” (Putwain, 2011, p.396).

In general, according to the research gathered thus far, I ascertain that the interdisciplinary approach to education is best suited for literacy instruction. According to the new Common Core state standards there are no instructional methodology specifications. The new state standards do call for increased literacy instruction across all content areas. This type of instruction may be best delivered in an integrated instructional manner.

Currently the proposed theory of teaching all subjects in a holistic manner or interdisciplinary approach is not fully supported by the literature. The Common Core State Standards have only started being implemented in the past few years. As educators shift to the new standards, there will undoubtedly be an increased focus on content area literacy, 21<sup>st</sup> century

skills and preparing students to compete in the global economy. The best suggested plan for instituting content these standards appears to be through interdisciplinary methods of instruction and collaboration.

### III. Description of curriculum

It is undeniable that the current educational system is producing students who have gaps in their academic knowledge. These gaps are hindering them from being successful in college and careers post-secondary. A significant amount of students are finding themselves ill-equipped with the basic skills for college. Students entering higher education are unqualified, and nearly one-third are obligated to take remedial courses in order to meet graduation requirements (Bettinger&Long, 2005). The Common Core State Standards aim at correcting our current educational systems inability to prepare students for college and careers.

Incorporating Literacy and preparing students for their higher education or vocational plans is a goal of the Common Core. Albeit, the “Common Core State Standards focus explicitly on what students are to learn and not on how the content is to be taught. The aim is college and career readiness.” (NGA&CCSSO, 2010). Accordingly, it is at the preference of the school district and the educators how they wish to implement the standards. Interdisciplinary instruction and collaboration may prove to be the most effective method of instruction for meeting these new standards.

#### LITERACY

The world is constantly changing and therefore adaptations need to be made. The United States is no longer the leader in education and the global economy as it once was. In order to get back on top, it is essential for American schools to produce students who are competent in essential skills. Therefore, the United States needs to better prepare students for college and career; this starts at the primary and secondary level. The changes to education standards are only one of the changes to education we will be seeing over the next few years. Following the implementation of the Common Core State Standards (CCSS), there will also be a new set of

standardized tests called The Partnership for Assessment of Readiness for College and Careers (PARCC). In order to prepare our students to meet these standards, prepare them for college and careers, and for these tests, there are certain expectations that need to be met.

A primary focus of the Common Core State Standard Initiative is literacy. The Common Core's definition of literacy differs from previous state standards programs. The Common Core attempts to include a variety of new literacies as a part of the standards in order to ensure that students are college and career ready. There is an emphasis placed on content area literacies, digital/media literacy, text complexity, and informational or non-fiction texts. Incorporating literacy instruction and technology into multiple content areas by nature is interdisciplinary.

The Common Core State Standards were designed around the concept of preparing students for college and career readiness. Many of the college and career readiness anchor standards integrate skills from various content areas to have students delve deeper, use metacognitive abilities, and multiple levels of understanding. According to the *Journal of Adolescent & Adult Literacy*, "this initiative supports reading of informational texts and interdisciplinary teaching and learning" (Boyd, Sullivan, Popp, Hughes, 2012, p.20). The foundation for college and career readiness standards is that the current educational system is failing to produce qualified graduates. In order to meet the growing demands of a transforming workplace, students need more than just basic skills. Therefore, there is an increased emphasis being placed on communication and problem solving (Rothman, 2012, p.11).

In order to accommodate for literacy education, the Common Core outlines six instructional shifts for English language arts (ELA) that are going to be taking place. The ELA literacy shifts are to be incorporated not only in English but across the curriculum. These instructional shifts include the following: 1) literacy should be taught in all grades K-12 and not

just the primary grades. 2) There should be a greater focus on non-fiction texts (currently 80% fiction). 3) Increased text complexity which involves having questions be text based and require students to think critically, texts should be rigorous with rich vocabulary, and students should have the ability to write evidence based claims (Jaeger, 2012, p. 30). These instructional shifts are dramatic changes for many ELA teachers who have continuously relied on literature for the building block of their lessons. These instructional shifts initiate the modification from using literature when teaching English language arts, to teaching literacy using more rigorous texts. The shift to more complex texts, informational texts, and nonfiction texts will help students build a larger vocabulary.

Classroom teachers and students will likely benefit from meaningful collaborations. Collaborating with librarians or media specialists is one way to accommodate the instructional shifts in the curriculum. Librarians are “curators of the school library collection, innovators in the use of instructional technology, and leaders in instructional planning” (Cravey, 2013, p.20). As a result, they are exceptionally qualified at providing teachers with the guidance they need in implementing the new Common Core State Standards. Librarians can provide a list of recommended texts, provide instructional technology, aid in redesigning lessons to meet the new standards and more (Cravey, 2013). Librarians are remarkably qualified in both literacy and multimedia instruction, therefore, collaboration may not only be helpful for teachers, but also may be essential to meeting the new Common Core standards.

The following is a Common Core State Standard verbatim: ELA Reading Informational text Standard 7, Grade 11-12: “Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address question or solve a problem (NGA&CCSSO, 2010).

One of the instructional shifts includes a greater non-fiction focus or a transition to informational texts for grade level and content areas. Accordingly, the Common Core has devoted an entire set of reading standards K-12 to reading informational texts. One example of how students can meet the aforementioned standard is by investigating and composing a research paper. Research papers or projects can and should be used in all grades starting as early as Kindergarten with grade appropriate modifications. In order to meet this specific standard best, the research project should be done in collaboration with a librarian or media specialist. This will ensure that students have access to “multiple sources of information presented in different media or formats” (NGA&CCSSO, 2010).

For the purpose of this assignment, the content area teacher should have students conduct a research paper or project. First, students should self-generate the topic and several sub topics on something of importance to them. Secondly, students should create a KWL chart on what they already know about their topic. This will help them narrow down relevant search terms when they are conducting their own research. Students will be expected to use multiple sources and different formats. Using inquiry and investigation, students will be encouraged to utilize their resources.

This research project will meet the standard of incorporating multiple sources of information in different media formats. Students will also have the opportunity to work with and synthesize complex texts. Working with informational and rigorous texts is an essential skill and also meets the Common Core standards for college and career readiness. The new ELA standards are meant to be taught across the curriculum. Consequently, content area teachers should be looking for meaningful ways to incorporate ELA concepts in their curriculum.

The Common Cores shift for integrating more informational or non-fiction texts into the curriculum is an efficient way to reinforce ELA standards. Content area teachers can implement a variety of texts rather than the traditional approach of teaching from the textbook. This is also a great way to implement more rigorous texts. One way for teachers to expose students to academic vocabulary and expository texts is by using read alouds. This is an effective way to incorporate higher level texts and check for student comprehension. Read alouds can be used in all content areas as a method of literacy instruction and can be used to incorporate informational texts.

#### CONTENT AREA LITERACY

The Common Core State Standards do not just place a focus on literacy in English language arts; there is an increased emphasis being placed in all subject areas, therefore, “teachers are expected to incorporate literacy instruction throughout the curriculum” (Fink, 2013, p. 21). For instance, there are reading standards for literacy in the content areas. Teachers are being held accountable for the literacy of their students in all subjects. Many subject teachers view themselves in a single domain. Effective content delivery incorporates a variety of instructional strategies. According to Fink (2013), in order to effectively instruct students, teachers need to provide them with the skills necessary to succeed. This includes the students having to be good readers, which subsequently ensures they will have the ability “to read articles and journals--review the research—before they can build experiments or projects of their own” (Fink, 2013, p. 22). This affirms the Common Core’s State Standard Initiatives emphasis for literacy within the content areas.

It is the job of educators to address the needs of all students. Reading is necessary for students to build critical thinking skills. Therefore, “all teachers—not just those who teach language arts specifically—need to provide opportunities for their students to critically engage with a variety of texts” (Janks, 2010). Doing so makes certain that the students are armed with the necessary skills to carry out higher level thinking skills. It is without a doubt that, “the global information economy today requires youth to have more advanced literacy skills than those required by previous generations” (Reidel & Draper, 2013, p.116). Literacy instruction is no longer just the job of the English language arts teacher, but the job of all the teachers regardless of the discipline they teach.

Interdisciplinary teaching and collaboration provide meaningful opportunities for students to engage in multiple modes of instruction. This benefits students who do not learn in the traditional fashion. Although students today are required to have a wide range of literacy skills, there is a variety of approaches to demonstrating understanding and conveying meaning. For example, “every discipline has its own unique demands and conventions” and acquiring the skills from one discipline will certainly benefit students in the other content areas (Friedow, Blankenship, Green & Stroup, 2012, p. 412). Teachers will often implement cross-curricular projects and short term collaborations, but neglect the benefits of “interdisciplinary teaching as an ongoing pedagogical process” (Friedow, Blankenship, Green& Stroup, 2012, p. 406). Educators need to realize the invaluable benefits of these types of collaborations in order for their students to reach their optimum potential.

The basis for interdisciplinary instruction is rooted in the idea that literacy instruction should be a shared responsibility. According to the PARCC model content framework, “all fields of study demand analysis of complex texts and strong oral and written communication skills

using discipline-specific discourse” as a result, “educators in each field must take ownership of building robust instruction around discipline-specific literacy skills to better prepare students for college and careers” (PARCC, 2012). Providing students with rudimentary literacy skills helps establish their success in all content areas, which subsequently reinforces their ability to succeed post-secondary.

The importance of content area literacy instruction is rooted in the idea that the language demands of the content areas are substantial. Most content area subjects require dense vocabulary knowledge and extensive reading and writing. In many subjects where inquiry based instruction is the accepted method of delivery, incorporating literacy instruction may appear to be difficult on the surface but in fact is a more productive means of reaching all students. One example is the literacy standard for History/Social Studies grades 11-12 which states that the students need to be able to “analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole” (NGA&CCSSO, 2010).

In order to fulfill the standard, students need to have knowledge of the content area itself as well as prior knowledge of the necessary elements of literacy, English language, and its mechanics. Therefore, this would require content area literacy instruction. As illustrated by the standard, regardless of this being a history/social studies standard, the Common Core places an emphasis on literacy in all content areas. Students are expected to be able to read, write, speak, listen, and convey meaning in multiple contexts. As previously discussed, it is the job of all educators to provide students with the basic skills necessary to be successful.

It is critical for students to have exposure to informational texts such as primary source documents. This helps them build critical literacy skills and is beneficial to student

understanding. For example, students participating in a cross-curricular project read Great Expectations by Charles Dickens, and supplemented it with primary source documents from the nineteenth century in social studies. This helped them “think carefully about attitudes, beliefs, and values of the people they were writing about” (Monaghan, 2010, p.15).

It is an essential component of the Common Core that students have multiple exposures to a variety of texts including literary fiction and non-fiction; this helps students build their text comprehension skills. The ability to closely read and analyze text is crucial to understanding.

Close reading helps students take note of essential text structures, vocabulary, and organization devices (Grant, Lapp, Fisher, Johnson & Frey, 2012, p. 45). Repeated exposure to informational and complex texts increases students’ vocabulary and reading comprehension. The ability to synthesize multiple sources and use informational texts for deeper understanding are essential skills for higher education.

The Common Core’s college and career readiness standards also place increased focus on the ability to analyze texts. The ability to analyze both fiction and non-fiction texts for key ideas and information are essential skills. As a result of the shift to more informational texts, students are being expected to interact at a more complex level. In accordance with the new college and career readiness standards, students must be able to analyze text structures, cite text specific evidence, make implied connections, and evaluate the author’s purpose.

Throughout their school careers, students should build an academic vocabulary. Having a diverse vocabulary, exposure to a wide range of texts, and the ability to express their ideas in multiple forms will provide students with the toolbox to be successful in academics. Reading, writing, and communication skills are essential to student success in all subject areas and not just English Language arts.

The transition to the Common Core standards establishes a basis for literacy instruction in all subject areas. Content area teachers should focus on incorporating reading, writing, and language skills into their lesson plans. Content area instruction should support the Common Core literacy shifts. Although there is a definitive basis for an increase in literacy instruction in all content areas, the most widely used method of literacy instruction throughout the curriculum is by means of vocabulary instruction.

### VOCABULARY INSTRUCTION

Language is essential to learning in all content areas, particularly with regards to the development of vocabulary. In specificity with current educational procedures, subject area teachers are supposed to include pertinent literacy instruction within their disciplinary lessons (Boyd, Sullivan, Popp, & Hughes, 2012). However, English is not the only subject area that is intensifying the rigor for vocabulary. That is to say, “vocabulary development and instruction are areas universally important in all educational contexts and can be used to form unifying threads among teachers and across discourses” (Boyd, Sullivan, Popp & Hughes, 2012, p.20).

The prime objective of the Common Core is in what benchmarks students are expected to meet yet there is no specific method outlined for how they must meet them. Previously, content delivery was an educator’s main objective. With regards to vocabulary dense subjects like science and social studies, a stronger emphasis should be placed on literacy instruction. More importantly, students need to have the skills to be successful; which include: reading, writing, speaking and listening. For this reason the Common Core ELA anchor standards call for incorporating literacy into the content areas.

The college and career readiness standard 4 calls for students to be able to “Interpret words and phrases as they are used in a text, including determining technical connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone” (NGA&CCSSO, 2010).

One way to provide students with literacy instruction in the content areas is for teachers to focus on scaffolding vocabulary lessons as a springboard into disciplinary practices. An illustration of this practice would be prior to the class activity/discussion. For instance, the teacher would highlight the key vocabulary necessary for the lesson (i.e. frontloading or pre-teaching), in social studies words such as: reactionary, deliberate, and progressive. At first, the teacher encourages students to make sense of these words and adopt their own definitions rather than the dictionary definitions (Boyd, Sullivan, Popp & Hughes, 2012). After students have shared their definitions out loud, the teacher makes connections to the context of the lesson; one example is the Progressive Movement in US history. The reason this method of vocabulary instruction is effective is that the teacher ensures “students have a basic concept of a particular words, and then (she) shifted to using these words in a historical context for disciplinary purposes” (Boyd, Sullivan, Popp & Hughes, 2012, p.19). Pre-teaching has long been an accepted way to provide vocabulary instruction and has proven very successful.

As demonstrated by The Journal of Adolescent & Adult Literacy (2012), a second method of teaching vocabulary is embedded within disciplinary instruction. Unlike the aforementioned method, embedded instruction relies more heavily on activating prior knowledge, concept development, and higher level thinking skills. An illustration of this strategy in practice would be in a biology class when students are learning about cells, osmosis and diffusion. Prior to this lesson, the teacher discusses the affixes hyper- meaning “over” or “above” and hypo- meaning

“low” in regards to the solutions for osmosis (Boyd, Sullivan, Popp & Hughes, 2012). During the lesson, the teacher completed a check for understanding in regards to the vocabulary. This lesson required general knowledge of science, knowledge of suffixes and as a result some prior knowledge from ELA. The condition that students have some prior knowledge of ELA will provide them with support. “The class was engaged in disciplinary discourse that involved both understanding and describing a scientific process” as well as vocabulary knowledge (Boyd, Sullivan, Popp & Hughes, 2012, p. 19).

Regardless of the subject area, it is required that students have the capacity to succeed. All students need to have the ability to read and write. Many subject areas require students to have knowledge of demanding vocabulary and reading skills. As a result, vocabulary and literacy instruction provides the students with the skills necessary to be successful in all content areas. Content area literacy is essential to student achievement and also puts them well on their way to college and career readiness.

## DIGITAL LITERACY

The modern world is one of rapid communication and exchange of information. In order to be competent in the language of the global economy, individuals need to understand and be fluent in multimodal literacies. Digital literacy is defined as “the ability to communicate with an ever-expanding community to discuss issues, gather information, and seek help” (McAdams & Gentry, 2014, p.246). Many of the skills students need to acquire in order to be successful in college and careers are referred to as 21<sup>st</sup> century academic skills. As a result, students should be able to “use technology, including the internet, to produce and publish writing and to interact and collaborate with others” (NGA&CCSSO, 2010). The Common Core State Standards Initiative,

places an increased focus on the importance of students being digitally literate in order to be considered college and career ready. Digital literacy and 21<sup>st</sup> century skills are by nature interdisciplinary and cross curricular (Education Week, 2012).

The Common Core State Standards state that, “The Internet has accelerated the speed at which connections between speaking, listening reading, and writing can be made, requiring that students be ready to use these modalities nearly simultaneously. Technology itself is changing quickly, creating a new urgency for students to be adapted in response to change” (NGA&CCSSO, 2010). Considering that there is an increased availability of information, it is the responsibility of educators to provide meaningful opportunities for incorporating technology into lesson plans.

There is a plethora of ways to integrate 21<sup>st</sup> century skills into the classroom. However, in order to best maximize learning outcomes, interdisciplinary or team teaching proves to be effective for incorporating technology. Meaningful collaborations amongst educational professionals should surpass content areas in order to best aid students. For instance, “preparing students for the future means giving them the skills they need to operate successfully in a multi-faceted universe” (Vance, 2010, p.22). In accordance with Common Core standards: communicating, collaborating, and teamwork are all essential skills for students to master in order to be considered college and career ready. Vance (2010) demonstrates how meaningful collaboration and embedded instruction enhance student understanding of subject matter and 21<sup>st</sup> century academic skills.

Collaboration is not just for teachers; students are going to be required to work together post-secondary. As stated in, the Common Core State Standard writing grade 8, students must be able to “use technology, including the Internet, to produce and publish writing and present the

relationships between information and ideas efficiently as well as to interact and collaborate with others” (NGA&CCSSO, 2010 ). In order for students to be considered digitally literate, they should be able to create, share, and comprehend text in its dynamic forms. For example, one way to incorporate technology and give students an opportunity to publish their writing is through the use of blogs in the classroom. The use for blogs in education is based on educational theorist Lev Vygotsky who believed that learning was a social process, which occurred through social interaction and blogs can help aid that process (Hashemi& Najafi, 2011, p.600). When students are given the opportunity to publish their writing online this gives it value.

In accordance with college and career readiness (CCR) anchor standards for speaking and listening, the ability to communicate and use digital media is crucial. The Common Core explicitly outlines that students need to master new ways of reading and writing in order to be successful in secondary education. It is clear that, “changes in technology and culture are leading to changing demands in the workplace” (Education Week, 2012, p. 10). Consequently, it is imperative that students are provided with the supports necessary to be successful prior to graduation. Currently it is the case that approximately 40 percent of post-secondary students are required to take at least one remedial course upon entering college and thus the dropout rate for those students increases significantly (Rothman, 2012, p.12). In view of the aforementioned facts, the current education system is failing to prepare students for life post-secondary.

Transformations in culture have offset expectations for academics. Therefore, incorporating digital literacies is essential in the classroom for two reasons. Firstly, “multimodality is now deeply ingrained in how our society communicates” (Sewell&Denton, 2011, p. 61). For that reason, when teaching (digital) literacy it is essential to educate students in multiple modes of communication and expression, with the intention of providing them with the

necessary tools to express themselves in various domains. Secondly, not all students have equal access to technology nor are they equally knowledgeable in multimodality. The less experienced students will benefit most from an increased technology instruction giving them a greater chance at being college and career ready. Given these points, all students can benefit from “training as well as access to technology to become competitive in the workforce” upon graduation from high school (Sewell & Denton, 2011, p. 61).

In order to be digitally literate and participate in a multimodal world, it is imperative that “students are able to navigate new ways of reading and writing” (Kist, 2013, p.39). There are numerous ways to make certain that students develop these skills. Some ways to utilize different media formats are by incorporating different modes of instruction in the classroom. Some examples may include: print or digital text, video, audio, voicethread, imovie, Powerpoint, and Prezi. The Common Core Reading standard for literature standard 7 grade 7 requires students to “Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium” (NGA&CCSSO, 2010). According to author William Kist, the Common Core recognizes a wide variety of new literacies; hence students need to master multiple texts. Students will need to learn to read new mediums, including but not limited to digital text, video, and multimedia. As stated in *New Literacies and the Common Core*, close reading non-print text is similar to reading print text (Kist, 2013).

## INTERDISCIPLINARY LEARNING

At this time, “in secondary educational institutions, in particular, the atmosphere or culture is often divisive rather than collaborative” (Vance, 2010, p. 20). According to provided

statistics, this curriculum is inadequately preparing students for success and it appears there is room for change. Using Common Core as the basis, school districts and educators should shift towards incorporating interdisciplinary instruction and team teaching to best meet the changing standards. Integrated projects and thematic units can help meet literacy standards and cross content collaboration.

Thematic units allow for experiential learning opportunities, account for multicultural education, and interdisciplinary instruction. For example, there is a perfect opportunity for experiential learning in social studies while teaching about world cultures. Social studies teachers can work collaboratively with other content area teachers to incorporate a variety of ‘texts’ to teach about a specific culture. As part of the Common Core primary sources, informational texts, audio, and visuals should be the basis for the unit. To incorporate an experiential learning opportunity, students could take a field trip to a museum. The hands on experience provide the chance to examine cultural artifacts, music, sample food, and play games (Reidel&Draper, 2013). This access to a variety of print and non-print resources helps students gain a better interdisciplinary understanding of world cultures.

For the most part, in the classic secondary education model in the United States, “a specialist covers each subject, with expertise in one particular area” (Vance, 2010, p. 20). In order to best meet the growing needs of students in a multimodal world, conventional instruction is no longer adequate specifically when it comes to meeting the standards of the Common Core. With this in mind, in order to meet the growing needs of students and guarantee their competency in college and careers, it is advantageous and in the best interest of all parties involved to use interdisciplinary instruction.

In order to best meet the Common Core standards including literacy shifts and college and career readiness anchor standards educators should collaborate and teach cross disciplinary. According to supporters of this method, the interdisciplinary approach accounts for teaching the whole student while making relevant links between subject areas, rather than a disconnected educational experience. Educators can accommodate for multiple intelligences, student engagement, and meet the Common Core standards using the interdisciplinary approach.

#### IV. Conclusions and Recommendations

##### CONCLUSIONS

Throughout education there have been many attempts at legislation and reform to improve achievement amongst students. Some of these reforms include: the Elementary and Secondary Education Act 1965 (ESEA), the No Child Left Behind 2001 (NCLB), and the Individuals with Disabilities Education Act (IDEA). As previously discussed, these regulations did little to improve achievement amongst all students. While learning standards define what students should be able to do by a certain age or grade level, the Common Core has high hopes of increasing academic merit and equality.

The newest educational proposal entitled the Common Core State Standard Initiative differs from previous programs. For one, it attempts to create a universal set of standards for students, teachers, and educators across the nation. Secondly, it addresses the preparation of students for post-secondary education. Thirdly, there is an intensive focus on interdisciplinary literacy instruction. The standards raise the bar for student achievement, rigor, and helps prepare students for the future. The Common Core establishes a goal of college and career readiness for all students regardless of gender, race, or socioeconomic status. By setting a single set of standards, “for the first time, nearly all students in the United States will be expected to learn (it), regardless of where they live” (Rothman, 2012, p. 57).

Currently, a large number of students are graduating without the fundamental skills to be successful in the global economy. This goes to show that educators are not providing students with the necessary basic skills at the secondary level. Professors and students alike are finding that students are ill prepared to meet the demands of a post-secondary education. Consequently,

students are finding themselves unprepared for both college and careers leading to record high unemployment and an ever increasing college dropout rate.

Fortunately, there is great potential for improvement. The Common Core has the capacity to increase student achievement and help prepare students for post-secondary. The Common Core State Standards have just started being implemented in schools across the nation. At the current time, there are not standards for all the content areas in place. The PARCC assessments will not begin being administered until the 2014-2015 school year. For the aforementioned reasons, the methods through which the standards are put into practice are of vast importance. After all, it is the students who are most vulnerable. If educators fail to implement another educational initiative effectively, the impact is going to continue to have a negative effect on student achievement.

The Common Core provides a well-defined framework of goals for knowledge and skills that students are expected to meet. These standards are well defined in ELA, math and at each grade level in order for students to be considered college and career ready (NGA&CCSSO, 2010). While the core dictates what skills students must learn, they do not establish how teachers must teach. Therefore, it is still at the discretion of educators to devise their own lessons, mode of instruction, and curriculums. However, it is expected that each teacher, regardless of the subject in which they specialize, adequately integrate as much technology as possible. This will help ensure that all students are able to compete in the job market and in the global economy after completion of their formal education.

Be that as it may, the Common Core does not explicitly demand teachers to make any adaptations to their current teaching practices. However, in order to successfully meet the new standards, the “Common Core will require states, districts, and schools to make a slew of

complementary changes to curriculum, tests, teacher training, and the like” (Hess & Mcshane, 2013, p.62). Given the fact that dropout rates continue to increase and that more students are taking remedial courses post-secondary, it is impractical to continue to educate students in the same manner and expect different results. Keeping this in mind, as well as the overwhelming evidence for interdisciplinary instruction, the most compelling argument is for modifying instruction in order to accommodate the changing standards.

The Common Core calls for students to meet challenging standards that will prepare them to do the kinds of things they will need to do in the in college and subsequently in their careers. Therefore, the Common Cores success may depend on “whether states and school districts can make transformations in instructional practice the standards suggest” (Rothman, 2012, p. 58).

The new standards require a series of literacy shifts including: increased text complexity, more informational texts, and texts with rigorous vocabulary. All teachers need to integrate the use of these skills in the curriculum.

One significant variation from current educational practices the Common Core stresses is incorporating increased literacy instruction in all content areas. Literacy is expected to be a shared responsibility throughout the learning community. The basis for this literacy shift is that it is essential that students have the ability to read and comprehend complex texts in order to be considered college and career ready. For example, the “complexity of materials used in entry-level college classes and the workplace had increased in recent years” but data showed the materials being used in secondary education had actually decreased in complexity (Rothman, 2012, p.59). Consequently, there was a definitive basis for why students were entering post-secondary ill-prepared.

According to the Common Core, college and career readiness standards are “general, cross disciplinary literary expectations that must be met for students to enter college and workforce training programs ready to succeed” (NGA&CCSSO, 2010). They are presented as year to year benchmarks that must be met prior to graduation in order for students to be considered ready to compete successfully in the global economy.

## RECOMMENDATIONS

In order to meet the Common Core State Standards, it is essential that they are implemented successfully and in a manner that best meets the needs of all students. The Interdisciplinary approach to education has proven to be an effective method for doing so. The interdisciplinary approach gives teachers the option to make meaningful connections between multiple content areas. This approach to learning also gives students a more relevant, less fragmented, and stimulated experience (Jacobs, 1989). The purpose of using the interdisciplinary approach to teaching the Common Core standards is to increase student learning across the curriculum regardless of imaginary confines between disciplines.

As was previously stated, the Common Core places an increased emphasis on literacy instruction, digital literacy, and vocabulary instruction. These instructional shifts are suitable to be taught using interdisciplinary instruction. Integrating literacy instruction in the content areas can be taught effectively using meaningful collaborations and team teaching methods. For example, colleagues are powerful resources when integrating multiple subject areas to create a thematic project or unit. This is also a beneficial way to meet multiple standards and make meaningful cross-disciplinary connections. It also provides students with many more opportunities to make associations between and within the disciplines involved.

In accordance with the Common Core, literacy instruction and college and career readiness standards are intended to be implemented across the content areas. For this reason, the best proposed method of instruction by nature is the interdisciplinary approach to education. This approach allows for teachers to meet the cross disciplinary expectations of the Common Core state standards. Above all, this approach allows for educators to meet the needs of all students by providing collaborations between teachers and making meaningful connections between disciplines.

The means through which the Common Core State Standards are put into practice are vital; specifically because these standards differ from any previous state standards. This initiative has the capacity to be very beneficial if carried out in an effective manner. The Common Core has the potential to help shrink the achievement gap amongst students. The fact that the Common Core establishes a unified set of standards across the states is immense, although it will undoubtedly propose many shifts to the way instruction is delivered and introduce challenges to teachers and students alike.

#### SUGGESTIONS FOR FUTURE RESEARCH

Seeing as the Common Core State Standards are in the early stages of implementation, it would be beneficial to research how states are assessing students on the new Common Core Standards. Currently the PARCC assessments are what the majority of the 18 states that are presently participating have adopted as their Common Core aligned tests.

Additionally, it would be beneficial to research textbooks, teaching materials, and professional development in order to see if they are sufficient in meeting these new standards.

Seeing as the majority of states have adopted the same set of standards, they will be expected to

meet the same grade level benchmarks. Although in accordance with the Common Core they do not have to teach them in the same way. Will there be a shift to a unified curriculum? If all students across the nation are going to be expected to take and pass the same set of tests, would it for would it not be beneficial to have them learning the same materials in the same way? (Hess & McShane, 2013). Is this in fact the beginning of a national curriculum where the government will have an increasingly greater role in penning curriculum, standardized tests and teaching methods? Will the states have less influence over what is to be taught in schools? Since the Common Core State Standards are still in the infancy stage, only time will tell.

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