

**Investigating the Impact of School Curricula on
Student's College and Career Readiness: A Study
among Seniors and Freshmen in a Private School in
Sharjah**

دراسة أثر المناهج المدرسية على جاهزية الطالب للتعليم العالي ومدى
استعداده الوظيفي: دراسة بين طلاب الثاني عشر وخريجي مدرسة خاصة
في الشارقة

by

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of the requirements for the degree of
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ABSTRACT

Schools should be a transitional and preparatory stage for college; thus, its curriculum must be one that paves the way for a student to be fully prepared for college requirements in any major chosen. Today's competitive and ever-changing socio-economic environment calls for adopting future-oriented learning and teaching techniques that can better prepare students for college and the workplace. However, curriculum content in schools is geared towards tests, not real-world applicability, or interest from students. Most schools still adopt a flawed system that was designed decades ago and is no longer able to meet the demands of a fast-moving society that is both technologically and culturally different than before. Policies like "Race to the Top" and common core have pressured schools and teachers to "teach the test" with little to no regard to the relevance of the content or whether it ever measures anything worth measuring. With UAE's National Agenda and its vision of 2021, there is emphasis not only on "No Child left Behind Act but also on college-and-career-readiness. One of the main parameters of the Agenda's success is that Sheikh Mohammed Bin Rashid Al-Maktoum accentuated on is that no senior should do foundation year in college. As a result, many high schools adopted an academically rigorous curriculum and stringent accountability measures in hopes of increasing the likelihood of students graduating from high school college-readiness. Nevertheless, such core curriculums and one-size-fits-all standardized tests did not prove to be the right solution for students to be college-ready. In response to this situation, this research examines the issue of college-readiness as it relates to the concept of academic – preparedness. The study used a mixed approach and is complemented with an exploratory research design. The population for the study was a high school as well as 2 universities in Sharjah. The data collected and analyzed revealed several interesting findings that ensure the plethora of previous studies that college-readiness literature has shed light on.

ملخص البحث

ينبغي أن تكون المدارس مرحلة انتقالية وتحضيرية للكلية؛ وبالتالي، يجب أن يكون منهجها الدراسي واحدًا يمهد الطريق للطالب ليكون مستعدًا تمامًا لمتطلبات الكلية في أي تخصص يتم اختياره. وتدعو البيئة الاجتماعية والاقتصادية التنافسية والمتغيرة باستمرار اليوم إلى اعتماد تقنيات تعليمية موجهة نحو المستقبل يمكن أن تعد الطلاب بشكل أفضل للكلية وأماكن العمل. ومع ذلك، فإن محتوى المناهج الدراسية في المدارس موجه نحو الاختبارات، وليس التطبيق في العالم الحقيقي أو اهتمامات الطلاب. لا تزال معظم المدارس تعتمد نظامًا معيّنًا تم تصميمه منذ عقود ولم يعد قادرًا على تلبية متطلبات مجتمع سريع الحركة يختلف من الناحية التكنولوجية والثقافية عن ذي قبل. وقد ضغطت سياسات مثل "السباق إلى القمة" على المدارس والمعلمين "التعليم الاختبار" دون اعتبار يذكر لأهمية المحتوى أو ما إذا كان يقيس أي شيء يستحق القياس. مع الأجندة الوطنية لدولة الإمارات العربية المتحدة ورؤيتها لعام 2021، هناك تركيز ليس فقط على "لا يوجد طفل خلف الركب" ولكن أيضًا على الاستعداد للكلية والحياة المهنية. ومن أهم معايير نجاح الأجندة أن الشيخ محمد بن راشد آل مكتوم ركز على أنه لا ينبغي على أي من خريجي الثانويات أن يقوم بسنة تأسيسية في الكلية. ونتيجة لذلك، اعتمدت العديد من المدارس الثانوية منهاجًا دراسيًا صارمًا من الناحية الأكاديمية وتدابير مساءلة صارمة على أمل زيادة احتمال تخرج الطلاب من المدارس الثانوية استعدادًا للكليات. ومع ذلك، فإن مثل هذه المناهج الدراسية الأساسية والاختبارات الموحدة لا يمكن اعتبارها مقياسًا واحدًا يناسب الجميع ولم تثبت أنها الحل الصحيح للطلاب ليكونوا جاهزين للكلية. واستجابة لهذا الوضع، يعالج هذا البحث مسألة الاستعداد للكلية من حيث صلتها بمفهوم التأهب الأكاديمي. واستخدمت الدراسة نهجًا مختلطًا بتصميم بحثي استكشافي. الدراسة شملت مدرسة ثانوية بالإضافة إلى جامعتين في الشارقة. البيانات التي تم جمعها وتحليلها كشفت العديد من النتائج المثيرة للاهتمام التي تم تناولها في عدد كبير من الدراسات السابقة التي ألفت الضوء على استعداد الطالب للكلية.

DEDICATION

To my soul mate, my strong pillar, my bright sparkle, my source of inspiration and without whom this would not have been accomplished.

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To begin with, uncountable thanks to Allah Almighty for blessing me so much that I cannot thank him enough, even if I try every day.

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Investigating the Impact of School Curricula on Student's Readiness for Higher Education: A Study among School Leaving Students in a Private School in Sharjah

Chapter One: Introduction

1.1 Background of the Study

The disconnect between eligibility and college readiness has prompted a push to identify ways to close the discrepancy between high school achievement and post-secondary expectations.

(Conley,2007). The concept of college “readiness” is a new one for most high schools. Educators at all levels are realizing their needs to a stronger alignment between what high schools teach and the skills and knowledge universities expect students to have mastered.

College readiness according to Conley (2006) is much more than just eligibility, it has to do with setting the concept of “habits of mind” that would prepare a student to be ready to participate in the academic community with the needed skills. The 2005 National Education Summit on High schools termed this problem the “preparation gap”. (Conley, April 2009).

According to Brown and Conley (2007), few high school teachers appear to have the time or interaction to develop students' thinking skills. As a result, entering college students lack major skills and have little cognitive development, a phenomenon termed "Fragile Knowledge Syndrome" (Perkins & Salomon, 1989).

Being a teacher and administrator in the UAE educational system for the past seven years, I encountered multiple cases of dropout or the need for a foundational year which is contrary to the national agenda requirements and parameters. The ministry of education as well as other educational institutions introduced several means and policies to enrich the school curriculum and prepare students to be ready for college, however, these policies and strategies prepared students to succeed in standardized tests or prescribed tasks that require little cognitive engagement but not to be college ready. This study is shedding light on this achievement gap and providing solutions that might be a way to bridge and assure a smooth transition towards college.

1.2 Research Problem

According to a recent study done in 2018, almost 43% of Arab youth in high school do not feel sufficiently prepared for university. These students have high confidence in their academic skills and abilities which shows a clear gap between student perception and reality which is most likely rooted in a lack of alignment between expectations for high school graduation and expectations for college and career readiness.

One of the UAE's highest priorities has always been education. As president His Highness Sheikh Zayed Bin Sultan Al Nahyan, founder of the UAE, noted, "The greatest use that can be made of wealth is to invest it in creating generations of educated and trained people". New

initiatives are being launched at all educational levels specially to ensure that UAE students are fully prepared to attend universities around the world and compete in the global marketplace.

“Educational institutions in the UAE are no like how grandpa describes it.” A statement that Anon(2020) mentioned in his article in Al -Khaleej times where he clearly accentuated on the challenges faced by stakeholders in the education sector regardless of all the activities launched to provide high quality education and bridge the gap in the Arab World. The UAE’s (MOE) has developed an Education 2020 strategy, to bring significant quantitative improvement in the education system, especially in the way teachers teach and students learn. Schools have a major part to play in making a student employable. Thus, schools of today should focus on personalized learning pathways where more focus should be on “Future Fluencies”, “21st century skills”, “problem solving skills” and “Higher cognitive abilities”.

1.3 Purpose of the Study and Research Objectives

The purpose of this study is to prove the need of an alternative, high school curriculum and counselling program designed to guide students through their college preparation journey: a program that increase students’ college readiness and decreases this stage’s anxiety. The main aim of this program is to reduce the “Sink or Swim” dilemma, of students left without guidance, resulting from the absence of college and career counsellors and property designed curriculum.

It is a single site case study designed to explore the effect of the absence of a counselling program and a college preparatory curriculum on the college readiness level of seniors as well as freshmen who graduated from the same high school where college benchmark assessment and a counselling program were never not available for them to be ready for college and less anxious about their choices.

The objectives of the study are:

- 1) To evaluate the need of a college readiness benchmark test, prepared by researcher.
- 2) To measure the effect of the absence of an effective counselling programme and a college-readiness curriculum on the performance of seniors and freshmen.
- 3) To examine the significance of a counselling programme and a new approach towards the curriculum on the motivation of seniors and undergraduates.
- 4) To compare the drop-out and anxiety levels of the students with and without a college-readiness programme.
- 5) To determine the challenges of establishing a college-readiness curriculum in high schools.

1.4 Research Questions

- 1) What is the motive for establishing a college-readiness curriculum in high school?
- 2) What are the major considerations involving such a curriculum?
- 3) What are the benefits students gain from the existence of such a curriculum along with a counselling program on seniors and freshmen?
- 4) What are the benefits high school and universities gain from the existence of such a curriculum?
- 5) To which extent will a college readiness benchmark test help educator better modify their curricular needs?
- 6) How far can such a program/curriculum motivate students not top drop-out from college and to decrease their anxiety level?

1.5 Scope of the Study

The study essentially focuses on identifying major problems associated with the absence of properly designed college readiness curriculum and a counselling program for senior classes and freshmen. The study will thus seek to ascertain how the existence of such a programme and curriculum can impact the future college and career life of those students.

It's important to emphasize that this research focuses on the impact of the curriculum absence on three important stakeholders: students, parents and teachers simply because the reliability of a teacher's information affect students' academic development which will ultimately impact their college readiness levels during the journey of preparing for colleges. This puts the need for a counselling programme and a college-readiness curriculum in high school as a top priority for it directly influences the percentage of college dropouts as well as the future of careers. It's then the job of the ministry of education, school administration and the teachers to mentally prepare the students for the challenges they would meet in college or the work field as cognitive engagement in education is very difficult to observe.

1.6 Significance of the Study

This study is essential and significant within the context of UAE since one of the national agenda requirements for 2021 is that no student should do a foundation year in college; thus, a proper counselling program and a well-designed college readiness curriculum must be provided in high school. Additionally, the study provides a contextual overview of the issue of college readiness in both high schools and universities. Thirdly, the implications and findings of this study will provide insight to high school administrators and university professors, as well as ministry of education on how such a curriculum can benefit students in the first hand and prepare them to college.

Because it is very hard to fill in the work positions with a great number of highly qualified people who are well-equipped for the work field, it is crucial to bridge the gap and prepare for CCR to preserve the economy. (Kochan, Fine gold, & Osterman, 2012) (Allegheny conference on community development, Burning Glass and the council for Adult and Experiential Learning, 2016).

Chapter Two: Literature Review

2.0 Introduction

This chapter presents a conceptual and empirical discussion of literature pertaining to college and career readiness along with the conceptual framework of Conley's (2014) Four Keys to College and Career Readiness, and social cognitive career theory.

This chapter states the problem of narrow CCR focus in secondary educational institutions, where academic knowledge and skills overshadow the support for building and assessing broader CCR skills and knowledge such as problem solving, college and career pathway knowledge, self-efficacy, learning techniques, and transitional skills such as financial literacy and understanding cultural and procedural norms in postsecondary environments. It also discusses how seniors and freshmen suffer depression and anxiety resulting from the challenges they face due to the absence of proper counselling programs.

Through this review of literature, I will define what CCR skills and understandings are, and how they are acquired. I also seek to understand the gaps in CCR skills, understandings, and

behaviors in the workplace and postsecondary institutions of learning. Finally, I will point at some solutions that might assist all educational institutions to shift practices and focus on a broader aspect of college and career readiness.

2.1 Conceptual Framework

The conceptual framework guiding this study is David Conley's (2014) Four Keys to College and Career Readiness Model. Conley argues that multiple measures are needed to better assess college and career readiness. Conley's definition for college and career readiness takes individual student abilities, interests, and goals into consideration, rather the one-size-fits all definition many other organizations and states have. He defines readiness as, "a function of the ability to continue to learn beyond high school, and particularly in postsecondary courses relevant to students' goals and interests, as represented by their choice of major or certificate program" (Conley, cited in Bissell 2017).

Conley (2014) believes that the two educational systems, k-12 and postsecondary, were not connected in any of the ways necessary for K-12 students to develop the skills they would need in postsecondary system. He concludes that in the future success will not be measured by what students have learned but with what they are capable of learning. Creating lifelong learners, a cliché that has been neglected so long will now be a critical goal of education. ‘The diploma is no more a measure of a student’s’ readiness but the knowledge and the skills to keep learning beyond secondary school.’ (Conley, 2014: 25)

Table 1. Components of the Four Keys to CCR (Conley, 2014)

Key Cognitive Strategies	Key Content Knowledge	Key Learning Skills and Techniques	Key Transition Knowledge and Skills
Problem formulation <ul style="list-style-type: none"> • Hypothesize • Strategize Research <ul style="list-style-type: none"> • Identify • Collect Interpretation <ul style="list-style-type: none"> • Analyze • Evaluate Communication <ul style="list-style-type: none"> • Organize • Construct Precision and accuracy <ul style="list-style-type: none"> • Monitor • Confirm 	Structure of knowledge <ul style="list-style-type: none"> • Key terms and terminology • Factual information • Linking ideas • Organizing concepts Technical knowledge and skills <ul style="list-style-type: none"> • Challenge level • Value • Attribution • Effort 	Ownership of Learning <ul style="list-style-type: none"> • Goal Setting • Persistence • Self-awareness • Motivation • Help seeking • Progress monitoring • Self-efficacy Learning techniques <ul style="list-style-type: none"> • Time management • Study skills • Test-taking skills • Note-taking skills • Memorization/recall • Strategic reading • Collaborative learning • Technology 	Contextual <ul style="list-style-type: none"> • Aspirations • Norms/culture Procedural <ul style="list-style-type: none"> • Institution choice • Admission Process Financial <ul style="list-style-type: none"> • Tuition • Financial Aid Cultural <ul style="list-style-type: none"> • Postsecondary norms Personal <ul style="list-style-type: none"> • Self-advocacy in an institutional context

2.1.1 Key Cognitive Strategies

Institutions of higher education and workforce leaders place great emphasis on an individual’s ability to think creatively, solve problems, and analyse situations independently for success in their environments (Bangser, cited in Bissell 2017). Likewise, employers look for employees to be problem identifiers as well as problem solvers to move their businesses forward (Fleming, cited in Bissell 2017).

Research conducted over the past fifteen years has yielded remarkable findings which mainly accentuate on the fact that secondary schools must help students develop a set of cognitive strategies that they can apply to varied learning situations in which the learner selects from among various options the most effective and efficient way to address the challenges that any particular problem might pose. With near- universal agreement, they assert that most students, even those with good high school grades, arrive unprepared for the intellectual demands and expectations of college. In most high schools, one-and-done is all too often the way students approach assignments. This approach should involve a complete change on behalf of teachers because developing cognitive strategies requires considerable practice over time with increasingly complex assignments.

2.1.2 Key Content Knowledge

Technology has made informational content much more accessible today, as long as the technology is available to the individual. What students learned in schools used to be a valued component of our education system. However, today's school system should focus on why students learn what they learn, and how students apply what they learn to new and unforeseen situations (Schwan & McGarvey, cited in Bissell 2017). The Key content knowledge students need to know derives from research on college readiness content knowledge that is students need to gain insight on how the pieces they are learning fit into a whole. According to Conley (2014), it is difficult for learners to retain facts in the absence of any connections to larger structures in the brain. As students learn the big ideas, key terminology, and information, they need organizing concepts and linking ideas to serve as intermediate structures for grouping information. It is not enough simply to have students learn the content knowledge, but also understand how and why they learn it. Success at learning content is a function of effort much more than aptitude.

Interestingly, research suggests that students with aptitude-based approach of their success tend to be more concerned about failing than those who view effort as more important. Content knowledge given to students in secondary schools must follow the Goldilocks rule: not so challenging that students cannot hope to succeed, not so easy that they do not have to struggle. The same as what Lev Vygotsky labels as the *Zone of Proximal development*, which refers to the need to stretch students in order to get them to engage but not to overreach and ask them to do things they are legitimately incapable of doing yet. Thus, there is a need for school systems to align curriculum content to the content necessary for post high school environments of work and education (Camara, 2013).

2.1.3 Key Learning Skills and Techniques

Learning skills and techniques, as they are identified by Conley, are often called soft skills. However, Fleming (2016) states that we should get away from the term soft skills and call them employability or professional skills. (Bissell, 2017) The key learning skills and techniques comprise a series of elements that specify how students can take greater ownership of their learning and another set of teachable skills that enable students to learn more efficiently and effectively. They prepare students on what to do after high school to learn successfully in a wide range of settings; thus, to become lifelong learners.

Students should take ownership of their learning as this is the most important factor for their success. They should learn how to set all goals and learn challenges however these should be crafted to reward persistence, not create additional barriers. In addition to assuming ownership of learning, students need a set of techniques to succeed in challenging and demanding learning

situations generally to reach the college- and career- ready level of the Common Core Standards specifically. All these skills that students should learn are actionable but can't be checked off the list once completed since these require years to be incorporated fully to the point that they make a real difference for learners. Time management, study skills, note taking and other skills cannot be taught as solely separate subjects but should be integrated into regular instruction on an ongoing and sustained basis. Schools should value proficiency in learning skills and techniques as highly as content knowledge since this is one way of closing the achievement gap and enabling students to learn the Common Core Standards in ways that make them college and career ready.

A study of 631 high school students in grades 10-12 demonstrated that students with higher measures of self-efficacy and planning skills were more likely to follow through with career planning events to increase their chances following through with their plans for success after high school (Rogers & Creed, cited in Bissell 2017). Another study looked into the correlation between self-efficacy and self-concept and student career awareness. The study, involving 165 12-year old students, revealed a strong positive correlation between student self-efficacy, self-concept, and career awareness. The study indicated that students with higher self-concept have a more positive outlook on school and learning (Nasir & Lin, cited in Bissell 2017). Although learning skills and techniques seem to indicate individual characteristics, there is evidence that school system characteristics can contribute to individual ownership of learning and the development of learning techniques (Johnson, cited in Bissell 2017).

2.1.4 Key Transition Knowledge and Skills

The argument for key transition knowledge and skills is grounded in the theory belief that students who do not understand how to navigate the postsecondary landscape, including understanding financial, procedural, and cultural norms, will struggle in transitioning to the different setting.

Students without the understanding of collegiate landscapes, cultural norms, and other areas of college knowledge run a greater risk of failure when transitioning from high school to college (Hooker & Brand, cited in Bissell 2017). It is not enough for students to acquire content knowledge and comply with the demand of the instructor and school. Schools must focus on college and career knowledge and understandings such as financial literacy, cultural norms, and independent living for students to successfully transition from high school college (Hooker & Brand, cited in Bissell 2017).

High schools and even some middle schools do pay a great deal of attention to the classes students need to take to be college eligible. In fact, in many cases, a school's entire transition program consists of encouraging students to take the courses they need to be eligible to apply to local state public and private colleges and universities. Conley (2014) believes that school personnel cannot be blamed too much for this because research on college success has focused on the relationship between high school courses taken and grades received in entry-level college courses. Students should do more than enrol in a set of college-prep courses. They must attend to the development of key cognitive strategies, the acquisition of key content knowledge, and the cultivation and mastery of key learning skills and techniques. 'Students who know what they want to do with their future are better able to make the decisions to arrive at the point of being fully prepared for college courses by the time they leave high school.' (Conley, 2014: 89)

Beyond the procedural aspects of applying are the actual accomplishments and life experiences that most secondary schools should focus on teaching students so that they can develop these and document them. These will include much more demanding and competitive admission processes

beyond high school grade point average and an admission test. Such processes include enlisting participations in extracurricular activities, volunteering for service projects, working in meaningful jobs, traveling, developing expertise and demonstrating excellence in areas outside the academic subjects which will help them be ready no matter which postsecondary path they choose to pursue. Secondary schools should be more creative about how they help students and parents prepare for the sticker shock of postsecondary education.

The four keys help to illustrate how the Common Core State Standards fit into a larger framework of readiness, one that schools can address in all subject areas and across multiple grade levels. The four keys serve as the scaffold on which an overall program of college and career readiness Common Core implementation can be constructed.

2.2 Educational Shift

In his book *Where Good Ideas From*, Steven Johnson (2010, cited in Collins, 2017: 54) tells the story: ‘Sometime in the late 1870s, a Parisian obstetrician named Stephanie Tarnier took a day off from his work at Maternité de Paris, the lying-in hospital for the city’s poor women, and paid a visit to the nearby Paris Zoo.... Tarnier stumbled across an exhibit of chicken incubators. Seeing the hatchings stumble about in the incubator’s warm enclosure triggered an association in his head, and before long he had hired Odile Martin, the Zoo’s poultry raiser, to construct a device that would perform a similar function for human new-born’s’. Johnson argues that this the way new ideas are hatched. This is the kind of new creativity in solving problems that is becoming central to success in the modern workplace. And yet, the traditional school provides little incentive or opportunity for cultivating such creativity. Most teachers value students who do what they are told and don’t ask questions that challenge the way things are done.

As technology has invaded the workplace, the demand for workers who can do routine jobs has decreased and the demand for workers who can think creatively has increased. For example, economists find that the percentage of the workforce engaged in routine jobs has fallen by about 8% since 2001, and the nonroutine jobs have increased by about 23% over the same period. Robots are increasingly doing many of the industrial jobs that workers once had to carry out. Sophisticated systems can read through masses of documents to find information needed for some purpose, such as finding relevant legal cases and making medical diagnoses.

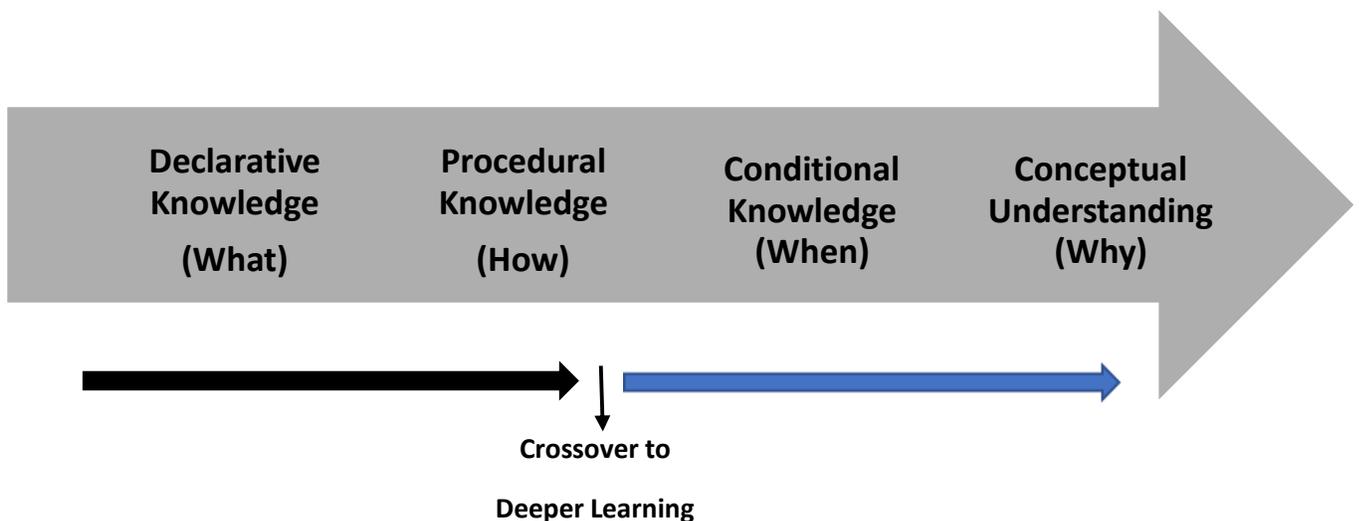
For students to thrive in the workplace of the future-the future that is happening now-they must learn to be creative and critical thinkers. They must also master vital workplace skills, such as managing their time and resources and working effectively in teams with people from different cultures. We can design schools to teach these new skills if we challenge kids to accomplish meaningful tasks, like designing new products and finding solutions to societal problems. Schools should train and prepare students to a world where technology is changing at an ever-faster rate. Many of the best jobs in the future will involve a variety of skills that schools nowadays are barely touching upon. As Tom Friedman (2004) dramatizes with his metaphor of a 'flat world' where it will not be enough for schools to have an education based on Shakespeare, the quadratic formula, plate tectonics, and the industrial revolution. Students will need to learn all the skills to earn a living in a hypercompetitive world.

Throughout most of the twentieth century, what is now called career readiness was labelled *vocational education* or *job training* and took the form of specific programs designed to prepare students for an entry-level job in an area of work, a job they can then theoretically do without change for their entire working lives. Most schools started what is referred to as vocational education, a model that worked well in part because students could be taught skills that were

generalizable across many work settings, even if they were specific to a certain occupation. By the early 1960s, a model commonly referred to as the ‘Comprehensive high school’ had become dominant. Often referred to as the ‘Shopping mall’ model, these schools attempted to meet students need by offering different programs based on student aspirations. This model, with its assumptions about the separation of college and work preparation, remained strongly rooted through the end of the century in many high schools and has only recently begun to be seriously questioned. Other career and technical education programs started to be present in schools to allow students to gain an orientation to the world of work- what is called ‘work readiness’.

2.2.1 Knowledge Complexity Progression

Deeper learning needed by students can happen once they become actively engaged in their learning; one way of doing so is through identifying the cognitive level at which students are processing what they are learning. This processing can be thought of as occurring along a continuum consisting of four levels.



This model was introduced in the mid-1980s by educational researchers Ann L. Brown and Annemarie Panlincsar and has been used and adapted in many forms since then by educators, cognitive psychologists, and others. All four levels are critically important because as students move through each one, their retention of everything they learned at previous levels solidifies.

A true learning progression will consist of more than a sequencing of the content to be learned.

One of the true advantages of the Common Core State Standards and their culmination at a college and career readiness level is that content can be introduced, developed, and extended across grade levels until students are able to process the content at more complex cognitive levels, as specified in this four-level knowledge complexity progression. As Conley (2014) concluded, while different subjects and courses call for different proportions of each, students in general should have opportunities to process content at all four of these levels on a regular basis in all subject areas.

2.2.2 What is Deeper Learning?

In U.S. education, **deeper learning** is a set of student educational outcomes including acquisition of robust core academic content, higher-order thinking skills, and learning dispositions. Deeper learning is based on the premise that the nature of work, civic, and everyday life is changing and therefore increasingly requires that formal education provides young people with mastery of skills like analytic reasoning, complex problem solving, and teamwork.

Deeper learning is associated with a growing movement in U.S. education that places special emphasis on the ability to apply knowledge to real-world circumstances and to solve novel problems. While the term "deeper learning" is relatively new, the notion of enabling students to

develop skills that empower them to apply learning and to adapt to and thrive in post-secondary education as well as career and life is not. In the 1990s, skills-based education saw a resurgence with the advent of the "21st Century Skills" movements and the "Partnership for 21st Century skills". In 2012 the National Research Council of the National Academies issued *Education for Life and Work: Developing Transferable Knowledge and Skill in the 21st Century*, a report on deeper learning re-elevating the issue and summarizing research evidence on its outcomes to date.

According to labor economists Frank Levy of MIT and Richard Murnane of Harvard's Graduate School of Education, since 1970, with the economic changes brought about by technology and globalization, employers' demands for workers with routine, repetitive skills—whether manual or cognitive—have dropped steeply, while demand for those with deeper learning competencies like complex thinking and communications skills has soared. "Deeper learning" was described by the William and Flora Hewlett Foundation in 2010 specifying a set of educational outcomes: mastery of rigorous academic content, development of critical thinking and problem-solving skills, the ability to work collaboratively, effective oral and written communication, learning how to learn and developing and maintaining an academic mindset.

By the turn of the twentieth century, John Dewey and others were promoting a philosophy of education that came to be known as progressivism, which also emphasized the active role of learners in the learning process. They saw experience as the foundation of learning. Constructivist notion of learning- the idea that learners must take an active role in constructing the meaning of what they are learning-extended progressivism and strengthened the notion of the learner as the arbiter of learning. Conley (2014) believes that deeper learning is a key, not only as a vehicle by which students integrate the content knowledge they will be learning in the Common Core

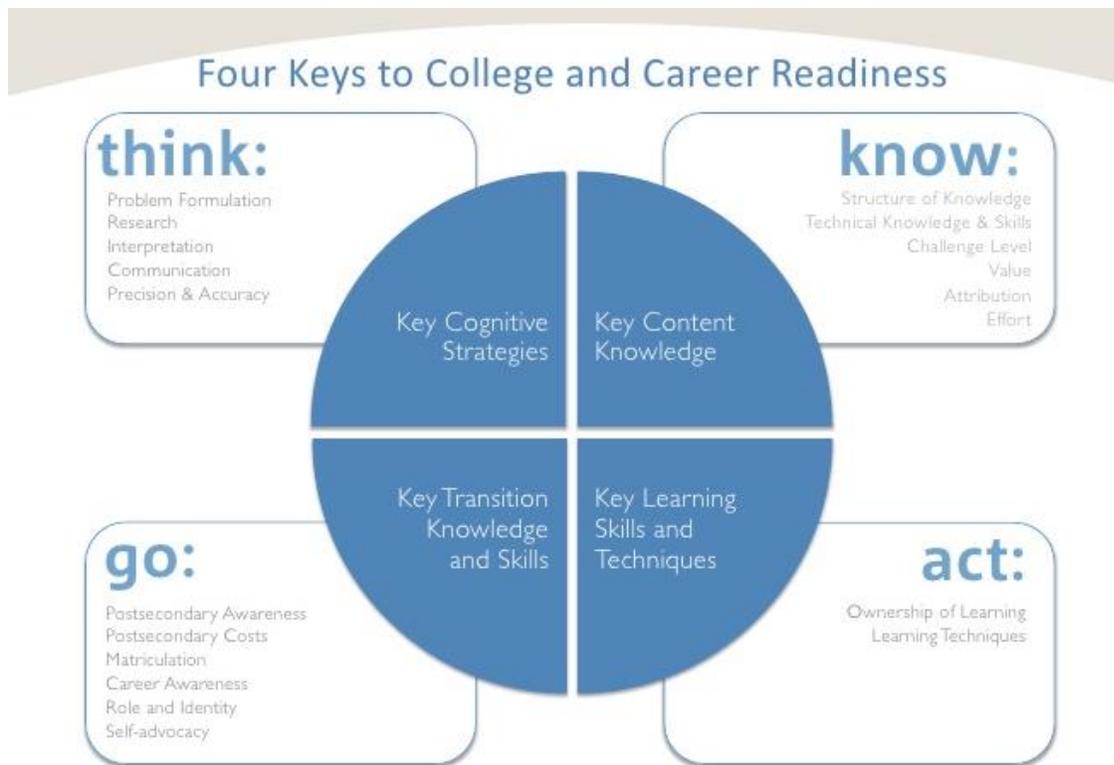
Standards but also as the means by which US schools maintain their distinctive leadership role in the world.

2.2.3 Four Models of Deeper Learning

1. Hewlett Deeper Learning Model: this framework consists of six major areas, each with several subareas that mainly focus on skills needed by students such as those of critical thinking, problem-solving, learning how to learn, mastering core academic content, Communicating effectively and working collaboratively.

2. National Research Council Education for Life and Work Model: A second model for deeper learning was presented in a report undertaken by the National Research Council (NRC). Entitled *Education for Life and Work* and published in 2012, the report describes deeper learning in terms of the ability of learners to transfer what they learn in one context to an unfamiliar context.

3. The Four Keys to College and Career Readiness Model:



4. Partnership for 21st Century Skills Model: The partnership for 21st century skills, an amalgam of national organizations and school districts, has developed its own framework that lays out the range of knowledge and skills students will need for success in the future.

It is worth noting the strong similarities among the conceptual organization of the models. Recognizing that all four of the models share a common vision of students engaging deeply with meaningful and challenging content, as well as specific components related to the learning process and students' intellectual and social development, helps reinforce the conclusion that the definition for deeper learning, while not exactly the same among all groups examining the phenomenon, has large and substantive elements of overlap and commonality. In all four models, learning occurs as a function of interaction with others as well as a result of sustained individual effort. Thus, for learning to be deeper, it must be active, engaging, social, self-monitored, and self-aware.

2.3 Defining College and Career Readiness

For quite some time the skills, understandings, and behaviors necessary for college readiness were viewed as being different than the skills, understandings, and behaviors necessary for career readiness. However, as economies shifted from low skill labour and manufacturing to a more technical and service-related market, the skills, understandings, and behaviors necessary for both college and career success started to come together (Conley & McCaughey, cited in Bissell 2017). Only recently have scholars, politicians, and business leaders started to define the skills, understandings, and behaviors, necessary for both college and career success (Conley, cited in Bissell 2017). Although there is no single definition for college and career readiness, practitioners, educational institutions, and political bodies share common themes and descriptors for CCR.

2.3.1 College and Career Readiness Definition: The College Board

The College Board currently defines a student as being college and career ready if the student meets both the math and evidenced-based reading and writing benchmarks on the SAT Exam (The College Board, cited in Bissell 2017). The current benchmarks for grade 11 students are scores of 460 out of 800 for the evidenced-based reading and writing, and 510 out of 800 for math. The College Board does not recognize any other measures for college and career readiness. Although the College Board's definition and measure of CCR has been considered a solid indicator of postsecondary preparation for many years, the focus is clearly on academic knowledge, and does not consider other keys such as learning techniques and transitional skills. (Bissell,2017)

2.3.2 College and Career Readiness Definition: ACT

Defined by ACT (2007), college readiness is: the level of preparation a student needs to be ready to enrol and succeed without remediation-in a credit- bearing course at a two- year or four- year

institution, trade school, or technical school...we have evidence that college readiness also means workforce readiness. According to Dohm and Shniper (2007), 73% of the fastest growing career options projected between 2006 and 2016 will require some form of training beyond high school (e.g., apprenticeship, trade school, or college).

ACT research confirms that the same level of academic achievement is needed for success in college or a career. It also establishes that students need to begin planning for college and career early, by taking rigorous courses and monitoring their progress toward college and career readiness. It supports the use of curriculum-based longitudinal assessments and curriculum and educational practice improvements that meet rigorous course standards. The research also shows what skills colleges expect incoming first-year students to possess and what skills employers want employees to have before they enter the workforce. ACT has more than five decades of research data to support the use of ACT's assessments and solutions to help you prepare all of your students for the demands of college and work. ACT knows exactly what happens to high school graduates once they get to college or to work and how to maximize their success.

Although there is indication that multiple measures of student performance and behaviors will define college and career readiness, the majority of the measure from the ACT continue to be traditional academic measures from standardized tests, and they do not take into account key transitional knowledge and skills. (Bissell, 2017)

2.3.3 College and Career Readiness: Political Influence

The reliance on traditional academic measure for defining college and career readiness is seen by many to be too narrow. Wally Barnes and John Slate (2013) argue that political rhetoric is concerned with education systems creating more college and career ready students; but, the

measures of accountability are too reliant on traditional measures of academic ability more closely tied to college readiness alone (Barnes & Slate, 2013). They argue that the increased political push and associated academic centred accountability systems are leading schools into deeper one-size-fits-all academic success systems in a time where postsecondary academic needs are diverse (Barnes & Slate, 2013). Saying that systems are being developed to address college and career readiness, while only measuring traditional academic measures long associated with college readiness, does not fully address how all students will be prepared for various postsecondary environments (Bangser, 2008). Academic measures are important measures for postsecondary success, however additional measures beyond traditional academics must be taken into consideration to more effectively measure student readiness for college and career (Engberg & Wolniak, 2010). Some states are beginning to look at multiple measures to determine if schools are effective in helping students become college and career ready, as well as providing guidelines for what college and career students look like. However, like the ACT and College Board, many states have not addressed the need to address key transitional knowledge and skills (Conley, 2014).

2.3.4 College and Career Readiness Vs. Academic Preparedness

Most policy makers, administrators, advocates, researchers, and practitioners agree that rigorous academic preparation is essential for today's young people to meet the demands of the 21st century global society (Wally Barnes & John R. Slate, 2013). However, with the one-size-fits-all agenda that has evolved as a result of the high-stakes testing and punitive accountability measures mandated by the NCLB Act at the federal, state, and local levels, the present reality is that far too many students falter at various stages of their academically rigorous journey from middle and high school through college without much understanding of how and why this life-changing

phenomenon occurred (Rosenbaum et al., 2010; Savitz-Romer, Jager-Hyman, & Coles, cited in Barnes & Slate 2013).

Another dilemma created by the one-size-fits-all college-readiness agenda is that all students are placed on the same rigorous academic track. College- and career ready may be the new buzz words or catch phrase of the 21st century, but with the political, economic, and educational focus and society's bandwagon mentality, the emphasis is clearly on college-ready (i.e., a 4-year baccalaureate degree) (Asch, 2010; Rosenbaum et al., 2010; Savitz-Romer et al., 2009; Symonds et al., 2011; Zhao, 2009a, 2009b). Although college- and career readiness is the 21st century mantra, "the word college is used as a synonym for bachelor's degree" (Rosenbaum et al., cited in Barnes & Slate 2013). Presently, with the only measure of college-readiness primarily being standardized tests, college readiness may be more aptly defined as academic preparedness (Barnes & Slate, 2010, 2011). According to Rosenbaum et al. (2010), 89% of all high school graduates in 2004 planned to earn a bachelor's degree regardless of preparation and academic achievement. Although large numbers of students aspire to go to college, only 30% of young adults who attend college earn a bachelor's degree by their mid-twenties (Symonds et al., 2011). Today's one-size-fits-all college readiness agenda has been promoted by business and economic leaders and perpetuated with political acumen to an American society that is willing to embrace the ideas of education and prosperity for their children, which is somewhat misleading.

At the beginning of the new century, high school reform received intense attention by local, state, and national legislators, philanthropic individuals and foundations, and school district administrators who discovered that high school course enrollment statistics were disappointing, and actually worse than imagined (Clark, 2007). According to Balfanz (2009: 31), “reformers must also create a system of academic and social supports for students who enter high school with inadequate academic skills and declining levels of school engagement.”

2.4 College and Career Readiness Gaps

Nearly 90 percent of all jobs in today’s workforce require some form of postsecondary training, technical skills, and the adaptability to learn and keep up with the fast-paced changes of the economy (Fleming, cited in Bissell 2017). With many Baby Boomers seeking retirement, the job market will be open for students graduating high school and college who are looking for a career. Along with business and industry, institutions of higher learning also report too many students are not prepared for the learning requirements of higher education. A 2009 report from the American Youth Policy Forum indicates 42 percent of all community college freshman, and 20 percent of all four-year collegiate freshman need academic remediation upon acceptance (Brand & American Youth Policy Forum, cited in Bissell 2017). The disconnect between the demands of the workplace and higher education must be addressed in secondary education to start closing the gap in readiness for college and career for today’s high school student (Bangser, cited in Bissell 2017).

2.4.1 Workforce College and Career Readiness Gaps

The National Centre for College and Career Transitions (NC3T) indicates a number of issues with educational systems and their ability to prepare young citizens for the current and future workforce. NC3T notices the importance of postsecondary education, but states that many secondary and

postsecondary institutions are not matching credentials to the needs of the workplace (National Centre for College and Career Transitions, cited in Bissell 2017). There are also issues with student access to career counselling and career awareness aligned with the future workplace. The suggested student to counsellor ratio is 250:1, while the current average ratio in United States schools is 479:1 (National Centre for College and Career Transitions, cited in Bissell 2017). Even if students have access to counselling services, there is also a concern that those counsellors have not received adequate professional development on workforce and higher education demands, workforce trends, and comprehensive CCR (Bangser, cited in Bissell 2017).

For well over four decades, education and political leaders have stated the need for making more students college and career ready upon graduation. Changes in standards, testing and accountability systems, and other reform movements have taken place in an attempt to build more CCR graduates (Barnes & Slate, 2013). However, a significant gap in the CCR skills necessary for postsecondary success remains (Balestreri, Sambolt, Duhon, Smerdon, & Harris, 2014). How schools help students engage in CCR knowledge and skill development is critical for workforce development and the future success of individual citizens (Kochan et al., 2012). In order to do this, school systems must establish systems and measures that encourage multiple measures of student achievement of CCR skills and abilities, rather than a traditional focus on narrow academic standards and measures (Pennsylvania Department of Education, cited in Bissell 2017).

With a growing need for highly skilled, motivated, and adaptable learners in the workforce, it is important to understand how educational systems can support the development of such individuals. It is also important to understand the factors that contribute to student engagement in CCR skills and understandings. The more we understand why students become engaged, the better we can

design systems for supporting that engagement and preparing all learners for postsecondary work and education.

2.4.2 Postsecondary Education College and Career Readiness Gaps

It has been mainly stated clearly that more than 50% of students joining traditional schools are not prepared to start in the work field and are in need of seminars and remedial courses. The financial costs of remediation are coupled with the fact that less than 50% of remedial students complete their remedial courses, and less than 25% of community college remedial students complete a certificate or degree program within 8 years (National Conference of State Legislatures, cited in Bissell 2017).

2.5 A Closer Look at the Common Core Standards

The Common Core Standards were designed to address a need and achieve a goal. Understanding the need and goal leads to implementation that goes beyond mechanical compliance and results in changes the standards were intended to achieve in the first place. The CCS are in many respects the culmination of twenty years of standard- based education dating back to the early 1990s. States undertook the development of content standards voluntarily and optionally, at least until the 2001 passage of No Child Left Behind mandated states to adopt standards. While most schools offer what happens to be broadly comparable content, studies of curriculum have yielded evidence of considerable variation across states in terms of the subject matter taught and the challenge level at which it is taught, in addition to how content is sequenced and the specific courses students are required to take. Based on Conley (2014), the strategy of increasing graduation requirements seems like a relatively straightforward way to improve academic performance and still honour local governance principles. However, after a decade during which graduation requirements increased significantly in many states, vast differences in student performance remains.

As conceived of by the standards writers, the CCSS were to be foundational learning tools that would be used to facilitate learning in other subject areas, as well as within the disciplines of English and mathematics. This is not to say that experts in these subject areas weren't consulted. All of this led to some controversy among teachers about who was responsible to teach what.

2.5.1 Implementing the Common Core Standards to Improve College and Career Readiness

Policymakers and educators are optimistic about the potential of the CCSS to improve college and career readiness, yet there is initiative fatigue, confusion about how to integrate the many college and career readiness-focused reform efforts underway in California, and a lack of clear guidance about how to implement the CCSS. Interviewed high school educators expressed a desire for more clarity about such issues as: 1) the expectations of the state's postsecondary systems for their various degree and certificate programs, 2) how to connect those expectations to teaching and learning in high schools, and 3) instructional strategies that will support the intent of the CCSS with regard to college and career readiness.

While many policymakers and experts see potential for the CCSS to significantly improve post-high school outcomes over the long term, it is important to understand that the CCSS are a set of learning goals in ELA and math; they do not prescribe curricula or pedagogical approaches. For this reform effort to be successful, teachers will need to adopt new instructional strategies. In addition, the CCSS do not include any guidance about the nonacademic components of college and career readiness (such as learning how to apply for college or financial aid), or about whether and how high schools should connect to colleges, universities, and workplaces.

Policymakers consistently reported that they expect students' critical thinking skills—such as problem solving, analysis, and synthesis, in addition to other skills that enhance learning, such as

communication and collaboration— to improve as a result of implementing the CCSS, and to support college and career readiness. As one legislative staff member said, “[implementation of the CCSS is] a moment in time to highlight the process skills that are related to being successful in college and career.” The new English and mathematics standards demand the development of skills that will serve students well in higher education and in the workplace. The English standards require students to read multiple, sophisticated sources, from informational and non-fiction text to literature, and synthesize what they read to develop critical-thinking skills. The literacy standards apply not only to English but to reading and writing expectations in history, social studies, and the sciences.” The new math standards require students to demonstrate deeper knowledge than previous state standards by asking them to perform accurate calculations and understand and “apply mathematical concepts to solve real-world problems.”

Recent research conducted by the Educational Policy Improvement Center (EPIC) examined the knowledge and skills contained in the Common Core State Standards and the extent to which these standards are important and directly applicable to college and career readiness. A survey of nearly 2,000 college instructors found they believe the standards to be a valid indicator of college and career readiness. That is, “students who are generally proficient in the Common Core standards will likely be ready for a wide range of postsecondary courses. “The survey also found that the greater the number of standards in which students are proficient, the more likely they will be prepared for postsecondary courses.

2.6 Social Cognitive Career Theory

Much of the existing theory and research on college and career readiness is grounded in Albert Bandura’s (1986) social cognitive theory, where the focal point is self-efficacy and how cognitive, behavioural, and environmental factors play a role in influencing human behavior (Bandura, cited

in Bissell 2017). Social cognitive career theory (SCCT) evolved from social cognitive theory and pertains to human career development through the lens of three distinct aspects of career development: the formation and elaboration of career relevant interests, the selection of academic and career choice options, and the performance and persistence in educational and occupational pursuits (Lent, Brown, & Hackett, cited in Bissell 2017). Much of the focus on SCCT centres on how content development and attainment contribute to individual career interests and pathways; and how individuals manage career related tasks and navigate the landscape of career awareness and obtainment (Lent & Brown, cited in Bissell 2017). Individual career decision making and exploration, job searching, career advancement, negotiation of work transitions and understanding the educational landscape necessary for advancement in a career field are now central to SCCT (Lent & Brown, cited in Bissell 2017).

SCCT carries a belief that all factors, including the individual student, are influential in the development of career identity, self-efficacy, and individual transitions into post high school pathways for success. Lent and Brown's (2013) model of career self-management indicates several variables supporting individual career development and is grounded in the beliefs of SCCT. They indicate personal attributes such as gender and race have an influence on an individual's development of career identity, goals, and outcome; and these attributes are not able to be controlled by the individual or their environment (Lent & Brown, cited in Bissell 2017). However Lent and Brown (2013) highlight two environmental factors that have a large influence on individual development of career identity, goals, and outcomes, which can be controlled or changed. School can simply change their learning systems and prepare students to better find their career identities based on their capabilities and interests.

2.7 What Will ‘Ready’ Mean?

As high school commencement time rolls around, states are working to ensure that their graduates are “ready” for life after high school. Despite all the activity, there is still plenty of confusion about precisely what it means to be “college” or “career” ready. Do Americans expect all students to be ready for college *and* work—or just for one or the other? And if they’re saying all students should be ready for both, does that mean every teenager must have the same preparation in high school? It is a definition that does not consider institutional variation in the nature and challenge level of entry-level courses or in the range of potential student interests. Readiness expresses well the need for alignment between high school preparation programs and college expectations. It does not, though, go so far as to suggest that students need dramatically different knowledge and skill sets for each of the thousands of programs of study available in postsecondary institutions. It does mean that readiness can be better defined and assessed, and then aligned with college and program types. Research on college readiness is beginning to provide much more detailed profiles and description of readiness at the level of programs of study.

A challenging program of study is key for all students to develop a strong core knowledge and skill set. Given the opportunity to learn the Common Core, some students will excel in one or more areas and perhaps not fare quite as well in others. These students should be allowed to begin their postsecondary education without penalty if their areas of strength align with their career aspirations and the postsecondary programs they are entering. Readiness in the future is likely to be much more data driven. Pretty much every other area in the economy and the society is using more data to make decisions. While the ways in which data are collected and used certainly raise a host of issues, these practices are likely here to stay. Much can be learned about how data are used in other sectors to better meet individual needs and achieve organizational goals simultaneously.

If it is possible to know so much about people's shopping habits, why isn't it possible to know more about what students know, how they learn, and what they're interested in? The field of education is moving in this direction, but slowly, in fits and starts. The reality is that for all the information schools collect about students currently, teachers know very little about what each individual student knows and doesn't know and how best to get all students to learn more. Students will not prepare for 'college'. Instead, they will give more thought earlier to their interests and goal, and they will have much more information about the postsecondary options that align with those interests and goals. The danger, of course, is that schools will prescribe futures for groups of students based on assumptions of what they can do or achieve. The fact is that the changing reality of the US economy and its need for more highly skilled workers should give schools far fewer incentives or excuses in the future to group students inappropriately or encourage some students to adopt lower goals than others. The introduction of adaptive systems to determine readiness need not result in the perpetuation of the worst aspects of the institutionalized social stratification that has been the legacy of tracking, poor counseling, and notions of ability.

2.8 Conclusion

The conceptual framework of the Four Keys to College and Career Readiness serves as a definition and comprehensive approach for identifying and benchmarking skills, knowledge, and behaviors which prepare students for post-high school transitions. Gaps in cognitive strategies, content knowledge, learning skills and techniques, and transition knowledge and skills is leading to increased remedial needs at colleges and universities and a less skilled labour force for the workplace. Closing those gaps will require understanding of the current situations in local contexts and understanding how all stakeholders can contribute to the growth of CCR skills and behaviors. Social cognitive career theory provides a theory for how individuals develop their career interests,

choice making, and persistence in their career identity and growth. Understanding what hard and soft skills are necessary for postsecondary success, and the processes that lead to the acquisition of such skills are central to this study. (Bissell, 2017)

Chapter Three: Methodology

3.1 Chapter Overview

This chapter discusses the research methods used in the conduct of this research. Gray (2013) stresses that research methodology is a crucial part of research as it embodies the systematic process researchers go through in designing and completing a research project. Strong research methodology is essential in any examination since it distinguishes strategies and methods that guide tackling an exploration efficiently. It, likewise, provides a work-plan that depicts how to carry on an investigation, Rajasekar, Philominathan, and Chinnathambi (2013). This table below therefore presents the methodological framework of the study including the research design, participation and instrument used. The chapter also presents information related to data gathering and analysis.

Table 3.1- Methodology Overview: main description of the research approach, setting, participants, and instruments with regards to the research question.

Research Question	Are school curricula assisting in student's readiness to College?
Specific research questions	<ol style="list-style-type: none">1) What is the motive for establishing a college-readiness curriculum in high school?2) What are the major considerations involving such a curriculum?3) What are the benefits students gain from the existence of such a curriculum along with a counselling program on seniors and freshmen?4) What are the benefits high school and universities gain from the existence of such a curriculum?

	<p>5) To which extent will a college readiness benchmark test help educator better modify their curricular needs?</p> <p>6) How far can such a program/curriculum motivate students not to drop-out from college and to decrease their anxiety level?</p>
Approach: (Qualitative+ Quantitative)	<p>Qualitative (interview with 3 main stakeholders: teachers- parents- students)</p> <p>Quantitative (Test results- Survey results)</p>
Setting	(A school and a university in Sharjah)
Participants	<p>5 Grade 12 classrooms- 139 students</p> <p>Teachers- Alumni</p>
Instruments	<p>a- College Readiness Assessment</p> <p>b- College Readiness Survey</p> <p>c- Teacher and student surveys prepared by the researcher</p>

3.2 Research Approach

The study considered the various research approaches stated in literature; qualitative, quantitative and mixed methods research (Burns & Bush, 2006; Malhotra, 2008; Creswell & Creswell, 2017); however, its nature required a combination of qualitative and quantitative approaches so as to reach best results. Creswell (2017) explained that the mixed methods approach is the combination of qualitative and quantitative research approaches with the intent of gathering data from various sources and triangulating them to obtain deeper insight and meaning. The overall purpose and central premise of mixed methods studies is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems and complex phenomena than either approach alone (Creswell & Plano Clark, 2007). In this study, it was vital to use both methods as it is very important to build outcomes on facts and percentages resulting

from actual exams and surveys in the quantitative approach while discussing satisfaction and motivation levels in the qualitative approach.

3.3 Research Design

Scholars like Saunders et al. (2009) and Kent (2007) discuss research designs and classify them under exploratory, descriptive and causal research design. Exploratory research design has been defined as research design tailored to suit research that seeks to gain in-depth insight into a phenomenon (Burns & Bush, 2006). Exploratory studies are mostly qualitative in nature and make use of interviews as the major data collection strategy (Malhotra, 2008). Descriptive research design refers to the research design that involves describing elements of the population being studied. As its name suggests, descriptive research is usually conducted to provide a comprehensive summary of the research objects (Lambert & Lambert, 2012; Williams, 2007). The third research design that is prominent in literature is the causal research design, also known as explanatory research design (Kent, 2007; Saunders et al., 2009). Causal research designs are used when researchers seek to investigate patterns of relationships and causal effects amongst variables in a research framework (Malhotra, Shaw & Oppenheim, 2006; Malhotra & Birks, 2007).

For the purpose of this research investigation on college readiness of high school students, an exploratory research design was chosen. This choice was motivated by the need to gain insight into fundamental factors preventing students from being college ready and capable to cope with all the changes and needs of college, and the impact that this has on their college and career future decisions. An exploratory research design facilitated the design of an interview guide and an assessment which was used to conduct in-depth interviews with key respondents in the sampled school.

3.4 Research Context and Setting

The study was conducted in a school in Sharjah. Respondents were selected from five different Grade 12 classes in one school in Sharjah and a group from of freshmen from the same university who suffered from the same problems that a group of freshmen and seniors suffer from in the majority of the schools and universities in UAE.

This school was chosen as a research setting for being the researcher's place of work where she can easily get approvals from administration personnel and from students. The researcher could easily rearrange class divisions and freely use all school resources and premises. The choice of this school perfectly suits the purpose of the study as the absence of a college and career counselor this year left the students lost in terms of what to do. College and career standards were added to the curriculum however their implementation is not effective in all subjects.

3.5 Research Population and Sample

Population has been described as elements within a large group from which a sample is selected for research purposes (Malhotra & Birks, 2007; Kent, 2007). The study was carried out in an International American School in Sharjah. Hundred students from Grade 12 classrooms were chosen to serve the study context. Students from research group were asked to reply on the survey sent to them via a link using the school portal; a group of them were interviewed by the researcher and all of them were given a test to do and the results were shared with their teachers. The primary data was collected through test analysis. The secondary data was collected through surveys. The tertiary data was collected through interview analysis.

Sampling is described as the process of selecting units from a population for the purpose of further research investigation (Kent, 2007). According to Bell and Waters (2014), the choice of members

is decided upon their presence and willingness while Gorard (2010) believes that the choice must depend on the prior clear knowledge of participants and finally Ritchie et al. (2013) stated that the choice should depend on gender and accommodation of participants. In this study, the purposive sampling technique was used in selection, whilst convenience sampling was used to select the staff and parents of this school who were willing to participate in the study. Purposive sampling is defined as the non-probability sampling method where the research relies on personal judgement based on the needs and objectives of a research to select respondents whose characteristics match the requirements of the research (Tongco, 2007; Barratt & Lenton, 2015). This research required the application of purposive sampling given that the nature of the topic needed specific grade levels. When it came to selecting staff from this school to participate in the study, another sampling technique was required. This was because the researcher found out that not all teachers and parents were willing to participate in the study.

3.6 Data Collection Instruments

The study utilized an interview guide as well as a test in the collection of data. This study was mixed in nature and adopted an exploratory research design to achieve the objectives of the study which was mainly to determine the impact of the absence of a college and career curriculum on senior and freshmen. To achieve these objectives, data was collected through a test that was given to a sampled group, a survey sent to the students and interviews which were facilitated using an interview guide. The interview guide was designed based on the objectives of the study and literature.

The protocol for this study was divided into two parts. Protocol 1 was designed to elicit conversation and reflection about the freshmen's experiences in and after high school as they related to college and career readiness and decision making. Protocol 2 was designed to promote

conversation related to their satisfaction with their college and career decisions. Overall, the questions were structured to elicit a broad view of college and career readiness experiences. The protocol questions were crafted with Conley's (2014) Four Keys to CCR in mind.

Seniors from the class of 2020 were given a test and a survey to determine how engaged in college and career readiness skills, understandings, and behaviors they are. Freshmen chosen needed to be from the same school where the study was conducted as they had almost received the same kind of instruction and support through the counselling program introduced to them in school. The tests and surveys results were checked and analysed by the researcher and the newly appointed college and career counsellor in the chosen school.

3.6.1 Validity of Instrument

Some researchers have asserted that in the conduct of research, some ethical principles must be adhered to in order to validate the findings of the research and to ensure respondents are not violated in any way by the questions being asked of them either through a survey or interviews (Crow, Wiles, Heath and Charles, 2006). Bell and Waters (2014) stated that getting verbal and written consent forms from participants authorizes the researcher's means of data collection. To this end, the researcher ensured that consent was obtained from respondents before the research was conducted. Additionally, the researcher sent a copy of the interview guide in advance so that respondents could familiarize themselves with the questions and indicate if there were any questions in the instrument that they would not be able to answer or would not feel comfortable with. None of the respondents raised any issues with regards to the instrument and the questions.

3.7 Data Collection and Analysis Plan

The aim of this study was to explore the impact of the absence of a proper counseling program and a college and career readiness curriculum on the future decisions and readiness levels of seniors and freshmen. Since the design of the study is a mix between quantitative and qualitative approaches, so a mix of deductive and inductive approaches were needed to analyze the collected data.

For the quantitative approach, the study used a test and a survey adapted by the researcher to measure students' levels with CCR skills, knowledge, and behaviors, as outlined by the Four Keys to College and Career Readiness (Conley, 2014). The four chosen classes were asked to sit for the same exam and to answer the surveys sent to them via the school portal. The results of the exam were collected and analyzed by the researcher and the college and career counsellor in the school using a deductive approach (Gilgun, 2011) where graduate responses to the test were organized into a spreadsheet with four columns, one for each of the Four Keys of College and Career Readiness (Conley, 2014). Each graduate's survey results were organized on a separate spreadsheet. Statements could be organized into multiple key areas of the spreadsheet as long as the statement referenced skills, knowledge, or understandings related to the key area.

The second section followed a qualitative approach analyzing results of the interview done with 6 freshmen, 4 parents who have their children in junior or senior classes and 4 lead teachers who teach the senior classes and who are part of the curriculum planning. The interview focused on the degree of college and career readiness and preparedness.

3.8 Ethical Responsibility of the Researcher

Scholars have consistently advocated the need for researchers to be ethical in their quest to obtain new knowledge (Crow et al., 2006; Kent, 2007; Saunders et al., 2009). Ethics in research refers to the process and way the researcher interacts with respondents and processes data that is collected. In the conduct of this research, the ethical principles of full disclosure, confidentiality and respect were practiced. Respondents were informed about the purpose of this research prior to the interviews, and the staff that participated in the research were assured of confidentiality. Again, total respect was maintained during the interviews. This research complied with the standard ethical practices required from researchers. Sarniak (2015) stated that researchers know that bias can find a way into any research process and that it is illogic to assume that any study can be 100 % free from it. To reduce bias, the researcher made sure that the qualitative approach was handled in a neutral way which is neither too formal nor too friendly.

Chapter Four: Data Analysis and Findings

4.1 Introduction

Data analysis is an important component of research (Malhotra, 2008; Hair et al., 2014). This section presents information pertaining to the data collected from respondents. This data is analyzed according to the major themes inherent in the objectives of the study. The major objectives of the study were:

- 1) To evaluate the need of a college readiness benchmark test, prepared by researcher.
- 2) To measure the effect of the absence of an effective counselling programme and a college-readiness curriculum on the performance of seniors and freshmen.
- 3) To examine the significance of a counselling programme and a new approach towards the curriculum on the motivation of seniors and undergraduates.
- 4) To compare the drop-out and anxiety levels of the students with and without a college-readiness programme.
- 5) To determine the challenges of establishing a college-readiness curriculum in high schools.

The aim of this study is to measure the degree of college and career readiness of seniors and freshmen. To measure this, two different strategies were used. First, a quantitative approach in which a target exam and surveys were given to the seniors of 2020 taking into consideration Conley's four keys of CCR. Second, a qualitative approach in which interviews were made with a group of stakeholders (Students- Teachers- Parents). Results were then collected and compared for final analysis.

4.1.1 Response Rate

In the first approach, the researcher examined seniors from three classes and in the second approach, the researcher interviewed samples of the three stakeholders: 6 freshmen students, 4 parents and 4 lead teachers for the senior classes. Data was collected through researcher personal interaction with stakeholders. Out of the 100 students recruited for the quantitative approach, only few were reluctant to contribute even though, they had shown an initial positive attitude. Thus, the response rate was not completely as expected, but was still adequate for this study.

4.2 Quantitative Approach: Data Analysis

In part one of the data analysis, the exam resulted will be analysed. In part two of the data analysis, the survey results will be analysed. In part three, results of interviewing the two group samples will be discussed and compared. All the results will be compared taking the demographic analysis, which is only gender differences in this research, into consideration.

Grade 12 senior classes (104 students) in 6 different classrooms took the same test within the same conditions. They got 20 mins. to solve it and were given instructions as well as information about the main aim of the test. The (Yes) results were calculated for each individual and then multiplied by the no. of students (104) divided by the total number of answers for the skills (520) answers which was then multiplied by 100 for the calculation of the foundation skill percentile.

Table 4.1 Results of Students in CCR Assessment in 5 Cognitive Foundation Skills

Foundation Area	Indications	Score
Academic Skills	A student must be able to read and write with a high level of independence.	40%
Self-Understanding	A student must be aware of his or her strengths and challenges in learning.	40%
Self-Advocacy	A student must independently ask for and at times even fight for services and support.	80%
Executive Function	A student must be able to keep track of assignments, organize books/materials and manage time independently.	20%
Motivation and Confidence	A student must have clear set goals and believe that he or she can succeed.	60%

Grade 12 senior classes along with the freshmen were sent a link to a survey to fill in. The survey's aim was to measure whether the chosen school had prepared them to be successful in college as well as in pursuing their career. The survey results were collected, the 100 statements in the survey were thematically categorized and finally the total scores were analysed.

4.2.1 CCR Assessment Descriptive Statistics (Analysis)

The results collected from the assessment done showed that the range of (Yes) answers amongst the (104) students was (3). (2) (yes) answers is the mode obtained as it is the most common value collected from most students.

The percentage of each foundation skill based on the (Yes) answers of 104 students was as follows:

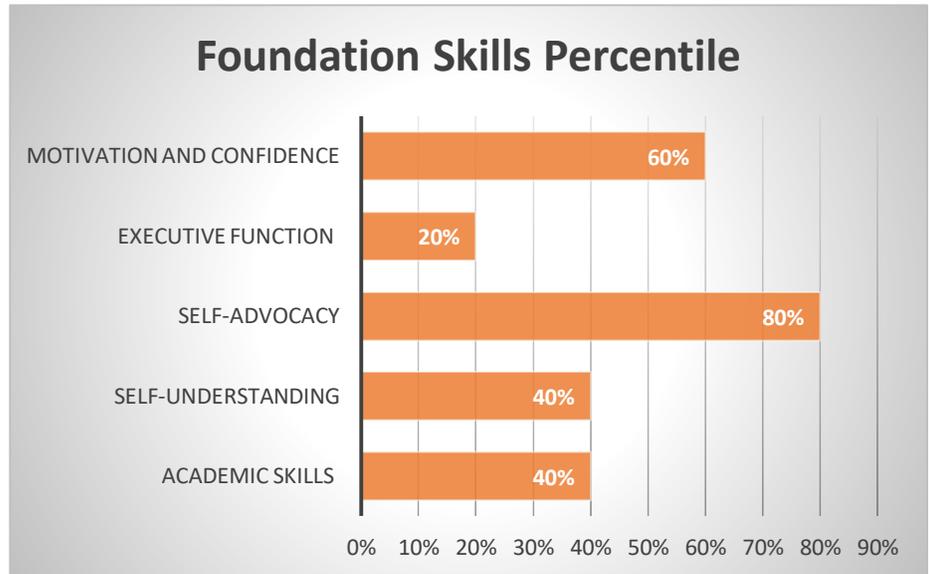


Figure4.2.1 Histogram that shows the percentage of each of the foundation skills of 104 students.

When the percentile of each foundation skill was calculated, it showed similar percentages amongst all the variables as the values were almost close except for self-advocacy which was higher than the rest with an average of (80%). These results indicate that the majority of the seniors tested in the chosen school had a problem in their CCR and the majority still lack a lot of the foundation skills needed to be ready for college and career life especially ‘Executive Function’ as it requires high level of preparation. Academic skills and self- understanding (40%) each showed a variation between boys and girls with girls scoring better than boys mainly on their academic preparedness skills. Motivation and confidence (60%) depended mainly on the personality and attitude of the students based on their social, emotional and financial background. The highest on the list was self-advocacy with (80%).

4.2.2 Student Survey: Descriptive Analysis

Around 84 students (seniors and freshmen) out of the 150 whom we sent the link of the survey to complete the work. 66 weren't interested; thus, the researcher didn't receive any results. Although cooperation wasn't as expected, the results collected were enough to reach the conclusions needed:

-Overall, less than half (44.8%) of students feel positively about their college and career readiness.

-Students are more likely to agree that their schools have helped them prepare for college than that their schools have helped prepare them for the careers that they want.

-59.6% of students agree that their school has helped them develop the skills/knowledge they will need for college-level classes.

-55.5% of students agree that their school has helped them understand the steps they will need to take in order to apply to college.

-45.7% of students agree that their school has helped them figure out which careers match their interests/abilities.

-48.7% of students agree that their school has helped them understand the steps they will need to take in order to have the career they want.

- 86.9% of students want to go to college, whereas only 2.8% do not. However, when asked what they expect to do after high school, only 70.9% of students expect to attend either a two-year or four-year college.

-Students were asked whether they participated in support services for future goals, and if so, how helpful they were.

-41.7% used college entrance exam preparation. (Seniors: 52.1% / Freshmen:54.9%)

-35.5% used counseling about future career possibilities. (Seniors: 37 % / Freshmen: 47.7%)

-33.7% used counseling about college admissions requirements. (Seniors: 35.5 % /

Freshmen: 56.3 %)

-32.4% used counseling about how to apply for college. (Seniors: 32.4 % / Freshmen: 59.9%)

-23% used counseling about how to pay for college. (Seniors: 22.5 % / Freshmen: 43.7%)

4.3 Qualitative Approach: Interview Data Analysis

This section followed a qualitative approach interviewing 10 seniors as well as 10 freshmen and 6 teachers including the newly appointed college and career counsellor. The choice of students was made based on two criteria: firstly, the availability of the freshmen and seniors during a time that doesn't conflict with their classes and secondly on the approval of the students to be interviewed. The main aim of the interview was to measure the students' motivation level and confidence in their college choices and the degree to which they feel the school is helping them to prepare for university. The teachers' interviews aimed at measuring their degree of preparedness in terms of the implementation and integration of the college and career readiness standards in their subjects' curriculum mapping. The interviews are for two groups:

- Division 1 was meant for seniors and freshmen examining their degree of satisfaction and their opinion of the degree to which their schools have prepared them for college and career life.
- Division 2 examined the teachers' knowledge and expertise in college and career readiness standards needed by their students and the degree of satisfaction they had towards the curriculum implemented to prepare these students.

4.3.1 Student Interview Data Analysis

A group of 10 seniors and 10 freshmen were interviewed. The chosen students at the beginning considered that they must answer in a perfect manner not reflecting the actual reality, but when the researcher explained the whole matter answers portrayed the reality of the whole situation.

4.3.1 Student Interviews regarding their level of CCR and preparedness.

Interview Sections	Responses
<p><u>Section 1:</u> A group of questions about critical thinking and problem solving.</p>	<p>50% of the students interviewed agreed that they always have difficulty when they mainly want to solve problems on their own or come up with creative solutions.</p>
<p><u>Section 2:</u> A set of questions based on oral and written communication.</p>	<p>76% of students don't have a problem with oral communication; however, boys claimed that formal written communication is a major problem for them.</p>
<p><u>Section 3:</u> A set of questions focused on teamwork and collaboration.</p>	<p>54% of students consider that they're better when working in a team, but some claimed that they still need to develop social skills that'll lead them to tolerate and collaborate with all the people and not just friends.</p>
<p><u>Section 4:</u> A set of questions focused on Leadership</p>	<p>26% of all students when asked about this section replied that they are not yet fully prepared to take the lead and the initiative in most of their work projects or even teams.</p>

4.3.2 Teachers' Interview Data Analysis

This section mainly focuses on interviews done with teachers of the seniors who are involved in the preparation of the curriculum maps to check their level of knowledge and preparedness of their students' CCR.

4.3.2 Teacher Interviews regarding their level of CCR and preparedness.

Interview Sections	Responses
<p><u>Section 1:</u> Related to school readiness to help students get prepared for college.</p>	<p>56% of teachers assured that the school tries its best to support students and parents during their journey to join college.</p>
<p><u>Section:2</u> Related to content readiness of students and the curriculum given.</p>	<p>70% of teachers claimed that the curriculum needs to be implemented more efficiently to cover all the CCR standards and that the main problem is that the academic focus is much more than the focus on lifelong skills.</p>
<p><u>Section: 3</u> Related to teachers' input in the curriculum and the extent of freedom they have to teach the extra needed skills.</p>	<p>40% of teachers said that they don't abide by the curriculum restrictions set by the administration and that they integrate some extra skills that they believe students need later in college and in real life.</p>
<p><u>Section: 4</u> Related to teachers' preparation and knowledge of CCR standards and their integration into the curriculum.</p>	<p>30% of teachers confirmed that they're done private training to improve their knowledge about the topic; however, 70% ensured that the school hasn't given adequate training in this regard.</p>

Chapter Five: Conclusion and Recommendations

5.1 Summary of the Study

This study focuses on understanding how students engage in acquiring the cognitive strategies, content knowledge, learning skills, and transition knowledge associated with CCR; and uncovering what skills students struggle with upon transitioning from high school to postsecondary settings of work or school. The aim of the study was thus to prove the need of an alternative, high school curriculum and counselling program designed to guide students through their college preparation journey: a program that increases students' college readiness and decreases this stage's anxiety. The study applied a mixed research approach, with an exploratory research design. Primary data was collected from a CCR assessment administered to the seniors and freshmen of an International American School in Sharjah. Interviews were conducted with staff of this school and the data obtained was analyzed using thematic analysis, a qualitative data analysis method as well as statistical analysis, a quantitative data analysis method.

It is very important to point at the importance of adult guidance in shaping students' future identities. What adults say and how they guide students can significantly influence their self-awareness, career identity, and decisions related to the development of such a career (Keller & Whiston, 2008; Schultheiss et al., cited in Bissell 2017). Literature also ensures that a person's past learning experience impacts future decisions and career paths. How an individual is engaged with learning is important to the connections that individual makes with what they are learning, and how that influences their future interactions with similar content or tasks (Almarode, cited in Bissell 2017).

5.2 Key Findings of the Study

The study collected data from 104 seniors in an American International School in Sharjah. The data was primary in nature and obtained through a CCR assessment, a survey, and a set of interviews with selected staff of this school.

In the quantitative approach, the descriptive analysis of the test and the survey showed the following results:

- More than 50% of students had problems in basic cognitive skills mainly critical thinking, problem solving, executive function, certain academic skills, and self- understanding.
- Around 70% of students revealed that the school prepares them for college mainly in terms of content and academia, but they still lack a lot of life and career skills.
- Less than 50% of students feel confident of their college decisions and ready to face college and career challenges.

It was pointed out by the students in the study that their decisions were mainly influenced either by their parents, counsellors, teachers they confide in or other adults who have myriad experience in the fields they've chosen. This helps them build self-efficacy skills that will set their career goals and outcomes.

In the interviews, students pointed at gaps in transitional skills and knowledge once they graduate from high school. They listed a lot of struggles that they face even if the school has already prepared them through a career counselling program. Many graduates were comfortable with their academic transition but struggled with making connections to their career identity. A more effective college and career ready program would ensure adult mentors are knowledgeable in

career pathways and outcomes, and that learning experiences that provide reflection on career pathways and outcomes should be carried out across the educational system and curriculum (Haase, Poulin, & Heckhausen, cited in Bissell 2017).

The key findings obtained in the study are as follows:

- (1) Encounters with parents or teachers influence how students develop CCR-associated cognitive strategies, awareness of content, learning styles and transfer skills.
- (2) Helping students develop self-efficacy and career goals is linked to learning experiences related to professional identification and practical practice.
- (3) Transition knowledge and skills are considered to be the weak areas for the majority of the students more than any of the other three keys to CCR.

5.2.1 Implications, Limitations and Recommendations of the Study

The study was conducted in one school and one university in Sharjah. This limited the number of responses that could be obtained and the perspectives that were gained as a result. Future studies can consider a larger sample size and take it a step further by including more high school classes, freshmen, and graduates as well as for example selecting more schools and universities in different countries. Another limitation of the study was the inability to interview more stakeholders to gain their perspective and responses with regards to the degree and level of college and career readiness in universities and postsecondary institutions.

Based on the evidence found in this study and in the literature, three recommendations have emerged. The first recommendation is for educator, parent, and community career awareness programs to be put in place to connect all stakeholders to changes in economic and workforce demands, as well as options for postsecondary pathways that would lead to realistic career

opportunities based on workforce needs. The second recommendation is to build workforce connections into the general education curriculum so that students can reflect on individual interests and abilities as they relate to content material and its connection to workforce needs. The third recommendation is for secondary schools to provide college and career exploration opportunities for all children so that every child can build a better understanding of postsecondary pathways and transitional knowledge.

5.3 Scope for Further Study

As per the limitations, the future areas of the study can focus on:

- 1) Educators part in ongoing discussions and professional development focused on local economic and workforce needs, as well as postsecondary pathways that contribute to those workforce needs.
- 2) Parental support groups such as parent teacher associations and parent teacher organizations that should be provided with similar learning opportunities as educators.
- 3) Developing high-quality syllabi in all courses that regularly undergoes external review and development process and that contains all the content needed by students mainly CCR knowledge and skills.
- 4) Developing educators own understanding of how the old system must change, and how their conversations with children and other community members must change to support a new economy.
- 5) Aligning high school curriculum and instruction with college expectations and working on integrating the CCR standards within the context of CCSS.

5.4 Conclusion

This study set out to investigate the impact of the absence of CCR transitional skills from high school institutions' curriculum and specifically sought to determine its reasons, considerations, and the benefits of implementing it on seniors and freshmen. An exploratory research design was adopted to aid the mixed research approach chosen. Primary data was collected through test, surveys and interviews with students and staff of an American International school in Sharjah. Detailed stories of each freshman current life situation, reflections on scholastic and extracurricular events, and struggles they have encountered since leaving high school, provided data which was analysed and compared with literature on CCR acquisition and development. From the analysis of each interview and inquiry question, four conclusions were made: 1) interactions with trusting adults shape how students acquire cognitive strategies, content knowledge, learning styles, and transitions skills associated with CCR; 2) learning experiences connected to career identity and hands-on practice, help students build self-efficacy and career goals; 3) students struggle with transition knowledge and skills more than any of the other three keys to CCR; and 4) emerging themes across the data indicate a need for further study and understanding of how individuals acquire college and career readiness skills, understandings, and behaviors. Overall, the study concludes that all children deserve an education that prepares them for their future, in the workforce of their time. To do that, adults need to be knowledgeable of the economic and workforce landscape, and available pathways to learning to be successful within that economy and workforce.

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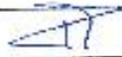
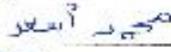
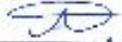
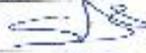
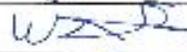
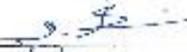
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Appendices

Appendix 1 (Interview students' consent form)

Appendix 2

Interview consent form:

Name	Signature
1- Mubarrat Naji	
2- Fahat Al Swardi	
3- Mohamed Asaad	
4- Abd Alrahman Al Fursan	
5- Salem Al Muzuni	
6- Saad Ahmed	
7- Ahmed Wahby	
8- Zeina Maher	
9- Naww Al Swardi	
10- Fatima Ahmed	

Appendix (2) CCR Assessment

College Readiness Assessment

Name _____

DIRECTIONS

For each of the foundation areas, you will find five questions. Mark the "yes" box adjacent to the question with a check (✓). Count the number in each foundation area and record the total for each area.

Academic Skills	YES
1. Can you read up to 200 pages in a week?	
2. Writing essays and papers is relatively easy for me.	
3. Do you have a system for taking notes?	
4. Do you have a system for preparing for tests and exams?	
5. I'm usually good at prioritizing my time to get my studying done.	
TOTAL	

Self-Understanding	YES
1. Do you know your academic strengths?	
2. Do you know which academic tasks give you the most difficulty?	
3. Can you identify the academic supports you need to be successful?	
4. Most of the time I feel others understand me.	
5. I never worry about what others think of me and don't let that determine my actions.	
TOTAL	

Self-Advocacy	YES
1. I often participate in class discussions.	
2. If I don't understand something in class, I typically feel comfortable asking my teacher a question.	
3. I enjoy learning things on my own (and not just for a class).	
4. I'm not afraid to take a position with which others will disagree.	
5. I am comfortable making some decisions without my parents' input.	
TOTAL	

Executive Function	YES
1. Are you able to ignore difficulties and focus on the task at hand?	
2. Are you able to complete all the steps of a project in a timely manner?	
3. Do you have a strategy for completing tasks that you find boring?	
4. I would still like school even if my friends weren't there.	
5. I think about the consequences before I act.	
TOTAL	

Motivation and Confidence	YES
1. Do you know what you want to get out of your first year of college?	
2. I usually go beyond class requirements, not because I have to, but because I'm interested in what I'm learning.	
3. If I want to do something on a Saturday afternoon, I usually don't need my friends to do it with me.	
4. I would be willing to give up my extracurricular interest to make excellent grades.	
5. Do you know that you can succeed?	
TOTAL	

Appendix (3) CCR Interview

Interview Questions for Career Readiness Competencies

Section 1: CRITICAL THINKING/PROBLEM SOLVING

1. Tell me about a time you had to make a decision with incomplete information. What did you do?
2. Describe a time when you had to convince your parent/ friend to try a different approach to solve a problem.
3. Give an example of a time you identified and fixed a problem before it became urgent.
4. How do you know when to solve a problem on your own or to ask for help? Are you an innovator? Why?
5. Describe a situation in which you found a creative way to overcome an obstacle.

Section: 2 ORAL/WRITTEN COMMUNICATION

1. Do you prefer to communicate via email, phone or in-person? Why?
2. If you're presenting your ideas during a meeting and your audience seems disengaged, what would you do to get their attention?
3. Have you ever worked with someone you struggled to communicate with? If so, what was the obstacle and how did you handle it?
4. Tell me about a time when you had to assert yourself to make a point.

Section: 3 TEAMWORK/COLLABORATION

1. Some people work best as part of a group - others prefer the role of an individual contributor. How would you describe yourself?
2. Tell me about a work experience where you had to work closely with others. How did it go? How did you overcome any difficulties?
3. Tell me about a rewarding team experience.
4. Give me an example of how you have dealt with a difficult team member.

Section: 4 LEADERSHIP

1. Give an example of your ability to build motivation in your classmates, or on a volunteer committee.
2. Have you ever had difficulty getting others to accept your ideas? What was your approach? Did it work?
3. Have you ever been a member of a group where two of the members did not work well together? What did you do to get them to do so?
4. What qualities make a good leader?
5. Tell me about a time that you took the lead on a difficult project.