

A TOOLKIT FOR 21<sup>ST</sup> CENTURY TEACHING AND LEARNING

by

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## ABSTRACT

*A Toolkit for 21<sup>st</sup> Century Teaching and Learning* is a product dissertation developed through an iterative process that involved combining scholarly inquiry with two decades of teaching experience. This study identified the role of the faculty-student relationship in developing a student's sense of competent membership in the institution, the need for relevant learning outcomes to be contextualized to student fields of study, and the need for instructional materials to support faculty work. The resulting product is an e-book that is both a primer to acquaint community college instructors with the challenges being brought to bear on today's learners and the competencies required to face them, as well as a collection of materials designed to engage students in achieving these needed competencies. The toolkit presents a learner-centered approach and a representative sampling of activities and assignments that can be contextualized to a variety of disciplines and learning situations.

KEY WORDS: 21<sup>st</sup> century skills, contextualized teaching and learning, learner-centered

## DEDICATION

This dissertation is dedicated to my sister, Katie, my mom, Dana, my husband, Jeff, and our three kids, Sarah, Ethan, and Aidan.

Katie, when I fell, you picked me up and carried me. I would not have finished without you. You expected and encouraged great things. Thank you for being the best big sister, always.

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## CHAPTER ONE: INTRODUCTION

### INTRODUCTION

Thus far, the 21<sup>st</sup> century has brought about a recession, changing patterns of migration and employment, significant political upheaval, and a global pandemic creating systematic disruption across the world. With these geopolitical forces at play recently, little attention has been paid to the rapidly evolving technologies that are dramatically reshaping the American workforce and economy. On the one hand, as technological advances have increased worker productivity, growth has been achieved in certain industries. On the other hand, the path to economic stability has not been evenly accessible to all Americans. With each technological breakthrough, those who are unable to adapt get left behind.

Klaus Schwab, the Founder and Executive Chairperson of the World Economic Forum, has warned that we are in the midst of a Fourth Industrial Revolution, a phenomenon that is changing the reality of our daily lives in profound ways (2016). The Fourth Industrial Revolution (alternatively known as Industry 4.0 in Europe and Smart Industry in the U.S.) is being built upon the Third Industrial Revolution, which brought information and automation. The preceding Second Industrial Revolution brought electricity and mass production, while the first brought steam power and mechanization.

Because the world has experienced previous industrial revolutions that have transformed the way people work and live, some may believe that this phenomenon is simply



an extension of the past or that communities and educational institutions can continue with business as usual. However, the Fourth Industrial Revolution is distinct from previous industrial revolutions in three ways: velocity, scope, and systems impact (Schwab, 2016). Schwab stated, “The speed of current breakthroughs has no historical precedent. When compared with previous industrial revolutions, the Fourth is evolving at an exponential rather than a linear pace” (para. 3). Key to understanding the rate of change is this “exponential” component: new technologies are being combined, or built on top of one another, to bring to life technologies that only recently were considered the domain of science fiction writers.

One example can be found in flying cars. While many Americans grew up seeing images of flying cars on screen in feature films and cartoons, most have not considered that they may one day ride in or even own such a machine. However, Dubai already instituted flying taxis in 2020 and the race is on to bring this technology to major cities across the United States (Hornyak, 2020). Other transformative or disruptive technologies include “artificial intelligence, robotics, the Internet of Things, autonomous vehicles, 3-D printing, nanotechnology, biotechnology, materials science, energy storage, and quantum computing” (Schwab, 2016, para. 4).

Many communities in America are struggling to respond to a world that is transforming itself at such a breathtaking rate of speed when they haven’t yet recovered from the 2008 economic recession. While some areas of the United States have rebounded well, others have found economic recovery elusive, leaving the overall US poverty rate at 14.7% by 2015 (Bishaw & Glassman, 2016, pp. 2-3). Two particular types of communities were dealt severe

blows: urban areas with economies based primarily in manufacturing and rural communities with economies based largely on extractive industries or agriculture.

The decline of manufacturing centers brought economic devastation to certain urban areas. This phenomenon is perhaps best illustrated by the case of inner-city Detroit, where population declined by 61% between 1950 and 2012. Furthermore, the residents of inner-city Detroit face a high school drop-out rate that is nearly twice that of the state-wide average and they experience the highest unemployment rates of any large city in the nation (Myran & Ivery, 2013). Rural communities have likewise been dealt a severe blow as they have been unable to recover from 21st century job disruptions. According to Greenblatt, “[T]wo out of three rural counties have experienced a net loss in their total number of businesses since 2010, after the recession had technically ended” (2016, para. 5). The loss of manufacturing jobs, closing mines and paper mills, declining demand for lumber, and automation of the agricultural industry are some of the forces that are stressing these economies, causing job losses, shrinking tax bases, and community decline. Compounding the difficulties caused by massive unemployment, even the most isolated places in America feel the effects of the opioid epidemic, community mental health crises, increased crime, severe weather events, and most recently, the global Coronavirus pandemic. Rural communities have few regional resources to cope with these challenges.

A key part of the mission of America’s community colleges is to drive social mobility for low-income and underrepresented populations, and community colleges are facing a critical juncture. They can drive a better future for those being left behind or they can continue to ignore the swiftly changing modern landscape. Students need dynamic, engaging instruction

that prepares them for productive participation in the 21<sup>st</sup> century economy, yet recent reform efforts have not prioritized student learning. Often, faculty have been left out of the conversation altogether, yet their role on campus is crucial to driving both student learning and retention. The goals of this project are to highlight the importance of the faculty role, provide an instructional primer on 21st century learning outcomes, and give faculty resources to create challenging and engaging learning activities to empower students to meet the challenges of a rapidly changing world.

### **THE INCOME GAP AND THE ROLE OF THE COMMUNITY COLLEGE**

There is a significant income gap in the United States between low-skilled and high-skilled workers. This income gap is perpetuated by a well-documented skills gap, which developed largely due to rapid changes in technology and in part due to the inability of higher education to keep up with this transformation (Myran & Ivery, 2013, Carlson, 2017). The American Association of Community College (AACC) has articulated this well: “The United States has been under-producing graduates with postsecondary skills since at least 1980, in the process contributing substantially to income inequity. Unless the nation turns this around, up to 60 million Americans are at risk of being locked into predominantly low-wage jobs that cannot support a family” (2012, p. 6).

Compounding this problem, many Americans have lost confidence in institutions of higher education; the idea that higher education is a waste of time and money has garnered much press attention in recent years. Consider the 2018 Gallup poll (as cited in Jones, 2018), which found that only 48% of Americans expressed “a great deal” or “quite a lot” of confidence

in higher education. These numbers were nine points down from 2015, when 57% of the American public expressed a “great deal” of confidence. Gallup also found that those who had positive experiences in college that led to rewarding and meaningful careers expressed the most confidence in higher education institutions.

While Americans have been losing confidence in higher education, multiple sources have documented that employers have simultaneously increased their expectations of graduates. According to Gardner and Estry (2017), employers are seeking “differently educated and prepared college graduates who can quickly adapt to innovation and rapid change in the workplace” (p. 1). This signifies a need for colleges to provide learning opportunities that are responsive to the changing workforce and the swiftly evolving challenges of the 21<sup>st</sup> century. To successfully navigate today’s landscape, students need complex and interdisciplinary skillsets that allow them to become increasingly nimble and adept. According to Hora (2017),

The National Research Council’s (NRC) 21st century competency framework, the NACE Career Readiness initiative, the O\*NET occupational categorization system, and researchers in labor economics such as the Nobel Laureate James Heckman have all emphasized the fact that the skills needed to thrive in life, school, and work span a variety of distinct competencies. For instance, the NRC’s widely cited taxonomy focuses on cognitive skills, such as technical expertise and critical thinking; interpersonal competencies, including teamwork; and intra-personal aptitudes, such as self-regulated learning. (para. 15)

Unfortunately, higher education has a poor record of embracing change. However, the growing gap between high skilled and low skilled workers and the accompanying income gap demonstrate that higher education has a social responsibility to retool itself to better respond to the swiftly changing economic and social landscapes. This puts America’s community

colleges in a pivotal position, providing them the opportunity to be a catalyst for change to greatly improve the lives of those struggling to gain an economic foothold.

## **EMERGING INDUSTRIES AND DEWEY'S PHILOSOPHY OF VOCATIONALISM**

Just as the Internet fundamentally changed the nature of work beginning in the 1990s, dramatic technological breakthroughs will continue to impact industry on a large scale throughout the first half of the 21<sup>st</sup> century. Perhaps the most hazardous to low-skilled workers are the changes that come with introducing more automation and artificial intelligence into the workplace. In the short term, jobs that are highly routine will be the most impacted by automation. The pressures that advanced manufacturing, automation, artificial intelligence, robotics, and other scientific breakthroughs are bringing to bear on employment are real and must be taken seriously. However, while these pressures are significant, the good news is that these advances will also boost productivity, which could bring tremendous potential for job growth. According to the World Economic Forum (2016), there are two potential scenarios:

Recent discussions about the employment impact of disruptive change have often been polarized between those who foresee limitless opportunities in newly emerging job categories and prospects that improve workers' productivity and liberate them from routine work, and those that foresee massive labour substitution and displacement of jobs. Both are possible. It is our actions today that will determine whether we head towards massive displacement of workers or the emergence of new opportunities.  
(para. 1)

Community colleges must choose to create the desired outcome and act with intentionality.

While awareness of industry needs is crucial for directing students into immediate earning opportunities, this approach should be balanced by understanding the long-term employment

potential for each career path and by preparing students to become the lifelong learners that continued participation in the 21<sup>st</sup> century economy will require.

One source of tension in the landscape of higher education is that some find the concept of “workforce training” to be antithetical to the mission of higher education. Many faculty members do not see themselves in service of industry but instead in service of a search for knowledge, an avenue for the development of agency among citizens, and a means to support students’ growth toward the leading of meaningful lives. Unfortunately, all too often, those who see higher education as job training and those who see higher education serving a higher purpose perceive this tension as an either-or proposition, as if satisfying one goal is automatically at odds with the other goal. However, these goals are not inherently contradictory. While the changing landscape of employment is one concern that colleges should be preparing students to navigate, there are many other challenges today’s students are facing as they look to the future world they will inhabit.

Clearly, to face and solve these challenges, today’s students will need to draw upon a wide range of skills, competencies, and knowledge. John Dewey, writing in the early 1900s, believed that successful vocational education must encompass all, that vocation implies one’s life’s work, and should not mean simply training students to satisfy the demands of their employers. Dewey believed that the development of skilled craftsmanship was a means to find satisfaction in one’s life and developing an understanding of history and one’s place in the world. Dewey believed this type of training should encompass learning that today is associated with a liberal arts curriculum.

## **SHIFT FROM BASIC TO FUTURE-FACING SKILLS**

Many people assume that 21<sup>st</sup> century skills consist solely of advanced technological skills, such as coding, robotics, and cybersecurity. And, in terms of employability, such skills are and certainly will be in high demand. However, “the fastest-growing category of employment in advanced economies like the US are ‘interaction’ jobs, meaning jobs that require complex interactions and require deep knowledge, and independent judgment” (Lorenzo, 2013, p. 8), outcomes traditionally associated with general education-or liberal arts courses. With the rise of Smart Industry, some community colleges have been incorporating traditional general education competencies into occupational programs.

Much of the academic content of these integrated curriculums has focused on basic skills rather than occupationally contextualized critical thinking, problem solving, and other higher order cognitive tasks. One example can be found in Washington State’s I-BEST model, which was developed in the early 2000s. I-BEST integrated basic general education skills instruction into occupational coursework. The I-BEST model has been studied fairly extensively and has been the model for the development of similar programs, such as the Regional Industry Skills Education (RISE) initiative in Wisconsin, which seeks “to develop ‘career pathway bridges’ for low-income adults” (Wachen, Jenkins, & Van Noy, 2011, p. 139). In 2012, the Shifting Gears program, funded by The Joyce Foundation, committed to expanding adult education bridge programs to increase the number of students entering postsecondary education in Illinois, Minnesota, Indiana, and Wisconsin. These programs were also designed to integrate basic skills with occupational programming to increase workforce preparedness in selected key industries (Roberts and Price, 2015).

While basic academic skills and literacies are crucial abilities, successful navigation of the challenges of modern life and of an economy that is based upon advanced technologies requires higher level cognitive functioning: according to the American Association of Community Colleges, a forward- looking, integrated, and multi-faceted approach is required to maintain sustainability for both students *and* community colleges themselves (2012). Future-facing skills are in demand not only by employers of today, but also those of tomorrow, and many of these competencies are also needed for productive civic participation and meaningful living. According to the National Association of Colleges and Employers (NACE), the top desired skills that employers are seeking in recent graduates are as follows:

- problem-solving skills,
- ability to work in a team,
- communication skills (written),
- leadership,
- a strong work ethic,
- analytical/quantitative skills, and
- communication skills (verbal) (NACE, 2018)

Furthermore, when asked to identify the qualities of the ideal hire, companies across Wisconsin “envisioned a hard-working individual with appropriate technical training (knowledge as well as the ability to apply technical information), solid problem-solving skills, and the abilities to communicate well, work in teams, and to continually learn new things; 100% of employers rated critical thinking and problem solving as absolutely essential in new hires” (Hora, 2017, para. 14).



A comprehensive review of the outcomes desired by both industry and academic circles reveals that the best skill set is one that goes beyond occupation specific or technical skills. An emerging phrase to describe a graduate who holds this desirable skill set is the “T-professional.” The T-professional can be illustrated with the capital letter T, which Gardner and Estry defined as one who embodies depth, “defined in terms of disciplinary knowledge and the ability to understand how individuals with that knowledge function and interact,” and breadth, “the professional abilities that allow someone with profound disciplinary knowledge to interact meaningfully with others who possess different disciplinary knowledge in order to affect an outcome that might not otherwise be possible” (2017, p. 1). Learning for the 21<sup>st</sup> century goes beyond the traditionally dichotomizing notion of STEM or liberal arts: the most sought after and highly paid employees will have hard and soft skills, an integration of liberal arts competencies with STEM or occupationally specific skills. Sorrel, with The World Economic Forum, has categorized the desirable learning outcomes into three categories: foundational literacies, competencies, and character qualities (2016).

### **Foundational Literacies**

Employers are finding recent graduates inadequately prepared to meet the communication needs of the workplace; for example, they are lacking in rhetorical decision-making abilities. In other words, they choose inappropriate mediums such as texting when dealing with a serious company issue (Carlson, 2017, p. 24). Other types of literacies are also essential. These include numeracy, scientific literacy, ICT (digital information literacy), financial literacy, and cultural and civic consciousness (Soffel, 2016).

## **Competencies**

Beyond these foundational literacies and beyond simply “knowing” things, students need to develop the ability to “do” certain things. These are termed competencies, and the most desired among tomorrow’s graduates are critical thinking, problem solving, creativity, communication, and collaboration (Soffel, 2016). According to the World Economic Forum’s Future of Jobs Report for 2018, these competencies will be the skills growing in demand by 2022, with “analytical thinking and innovation” topping the list, closely followed by “active learning” and “active learning strategies.”

## **Character Qualities**

Future employers will be looking for the personal traits of curiosity, initiative, persistence, grit, adaptability, leadership, and social and cultural awareness (Soffel, 2016). The increasing demand for these attributes highlights a need for institutions to place greater focus on character education.

## **PLACING TEACHING AND LEARNING AT THE HEART OF REFORM EFFORTS**

Community colleges are especially well situated to leverage curriculum development to effectively close attainment gaps for low-income and underrepresented students. Nearly half of black and Hispanic students begin their pursuit of postsecondary credentials in community colleges, yet their success rates have been disproportionately low. Among all populations, African American men have faced the most alarming deficiency in completion: fewer than 25% of black men beginning at community colleges eventually complete a certificate or degree

(Shapiro et al., 2017, p. 22). The inequities in America will only widen unless we can successfully turn things around for those being left behind.

In order to provide equitable pathways to family-supporting jobs, community colleges need to dramatically improve student success. Many community colleges have long recognized this and have been intensively focused on reform efforts. However, these efforts have largely focused on revising advising and wrap-around supports, while little attention in community college reform efforts has been paid to student learning (Tinto, 2012; Bailey, Jaggars, & Jenkins, 2015). Yet there is plentiful and rich evidence indicating that quality instruction and connection with faculty are essential components of student success. Tinto's interactionalist model predicted that a student's sense of academic competence was at least as important a predictor of persistence and departure decisions as was social integration: "[O]ther things being equal, the lower the degree of one's social and intellectual integration into the academic and social communities of the college, the greater the likelihood of departure" (as cited in Barnett, 2011, p. 195). While Liu and Liu's (1999) research confirmed Tinto's findings that the most significant factor influencing student retention is academic and social integration, the term integration itself remained loosely defined. To provide clarity, Barnett applied Tinto's use of the phrase "competent membership" to define and measure integration. Barnett explained: "This term is used by Tinto to connote both a sense of possessing the knowledge and skills needed for success in the college environment (competence) as well as sense of belonging or being a part of the college community (membership)" (Barnett, 2011, p. 200). Barnett's research in applying Tinto's model added emphasis to the important influence of faculty relationships on students' departure decisions (2011). Barnett found that when students experienced validation by faculty

(and to a lesser extent, by their peers), they were more likely to persist due to a heightened sense of competent membership. In *Completing College: Rethinking Institutional Action*, Tinto (2012) argued that community colleges have tended to focus reform efforts on “the margins of students’ educational life” (p. 5), despite the obvious fact that the classroom is students’ primary (and sometimes sole) regularly occurring connection with the institution. Tinto proposed that colleges design their reform actions around four conditions: expectations, support, assessment and feedback, and involvement. Each of the conditions emphasizes quality, highly engaging academic experiences. Tinto’s proposed framework places student learning at the center of institutional intentionality.

Among scholars, there is wide agreement that certain instructional strategies that are particularly effective for fostering the conditions of expectations, support, assessment and feedback, and involvement (Tinto, 2012). These are known as High Impact Practices (HIPS). Vaz (2019) described HIPs thus: “They promote active engagement, requiring students to spend considerable time on task. They involve collaboration, both in and out of classroom settings. Students are asked to take responsibility for their learning, while faculty members assume coaching and mentoring roles” (para. 4). Student engagement has been convincingly connected to student retention and graduation. Drawing from extensive research, the Center for Community College Student Engagement emphasized that “promoting student engagement is the overarching feature of successful program design, and all other features support it. In design and implementation of the collegiate experience, colleges must make engagement inescapable for their students” (CCCSE, 2013, p. 5).

When Texas A&M, San Antonio, recently underwent a major transformation from solely serving junior and senior level students, the university intentionally incorporated HIPs in the redesign to ensure the highest level of success possible for first- and second-year students (AACU, 2017). These practices have been widely tested and have shown demonstrable results in improving student engagement and learning outcomes. HIPs include the following strategies (AACU, 2017):

- First-Year Experiences
- Common Intellectual Experiences
- Learning Communities
- Writing-Intensive Courses
- Collaborative Assignments and Projects
- Undergraduate Research
- Diversity/Global Learning
- Service Learning, Community-Based Learning
- Internships
- Capstone Courses and Projects

Vaz (2019) argued that, in this time of great social challenges and public loss of confidence in higher education, HIPs should play a primary role in today's classroom because they are the key to not only preparing students for tomorrow's careers but to prepare them to lead satisfying, meaningful lives.

## PROJECT FOCUS AND PURPOSE

It is now common in the community college landscape to see institutions undertaking large-scale reform efforts aimed at improving student success. Recently, the most widely emulated model has been the Guided Pathways approach put forward by Bailey, Jaggars, and Jenkins in their now canonical 2015 book, *Redesigning America's Community Colleges: A Clearer Path to Student Success*. Bailey, Jaggars, and Jenkins recommend coordinating all areas of the college to create a seamless, integrated learning experience for students. While these efforts are laudable, instructional practice remains a key component of student success, a point that is also made by Bailey, Jaggars, and Jenkins. Community college faculty wield enormous influence and potentially transformative power in student lives. Teachers can do much to bolster student confidence, competence, and success by fostering the development of future-facing skills. By putting students at the center of the learning experience, instructors can empower students to attain the future-facing foundational literacies, competencies, and character qualities that they need for long-term participation in the 21<sup>st</sup> century economy.

In order to do so, however, instructors must first learn to see themselves as more than simply conveyors of academic knowledge but rather as facilitators of learning. Unfortunately, many instructors don't know how to transition into this role or even where to begin. According to Bailey, Jaggars, and Jenkins "most need help finding preexisting assignments and materials that can be adapted to their own students and learning goals" (p. 108). Some organizations and individuals have already risen to fill this need. For example, the Reading Apprenticeship Model by WestEd (2021) provides both face-to-face and online workshops courses developed specifically to help disciplinary faculty learn to promote reading and communicative fluency in

discipline-specific courses. And the California Acceleration Project, with Katie Hern at the helm, is an organization devoted to supporting faculty to develop critical thinking learning outcomes in co-requisite composition courses. The California Acceleration Project has developed a repository of resources, including a packet of instructor-developed calendars, assignments, and activities for theme-based reading and writing courses. Several resources in this product were derived from or inspired by the California Acceleration Project and Katie Hern's materials (Hern, n.d., Hern, 2016). Another body of resources has been developed by the University of Texas at Austin Charles A. Dana Center (2021) to promote the development of future-facing learning outcomes through contextualized instruction in mathematics pathways.

While scholarship in the field of teaching and learning is well established, many faculty members are so busy with the heavy teaching load that is typically required in community colleges that they do not have much time for contemplating the research and creating high-quality materials. Additionally, while many excellent instructional resources exist, many community college instructors are unfamiliar with them. Thus, there is often a disconnect between scholars and practitioners concerning what works to improve student learning and their sense of belonging in the academic community. A toolkit for *21st century teaching and learning* was created to help fulfill this need, to give teachers both a primer on 21st century learning outcomes and tools ready for immediate implementation. Faculty may adapt them, or they may simply serve as inspiration for the creation of new learning materials better suited to meet the needs of students in their particular learning contexts.

## **SUMMARY**

The world is changing at an unprecedented rate, outpacing previous technological revolutions at a breath-taking speed. The combined forces of new technologies, along with economic, political, and environmental upheavals, have created a challenging social and employment landscape that many of today's community college students have been inadequately prepared to face. Serving the highest proportion of low-income and underrepresented students in the United States, a cornerstone of the community college mission is that of social mobility. Community colleges that fail to evolve will find their students being left behind in this world; however, those that successfully adapt their instruction to meet these needs can build pathways to prosperity for their students while supporting their pursuit of meaningful lives and productive citizenship. The skill sets students need to navigate these landscapes are complex and interdisciplinary, and many community college instructors may find themselves at a loss when faced with the question of how to achieve these dynamic learning goals. This purpose of this project is to provide community college faculty members with an understanding of future-facing skills and to give them tools and strategies for developing these critical learning outcomes.



## CHAPTER TWO: LITERATURE REVIEW

### INTRODUCTION

Debate surrounding the purpose of public education has a long history in the United States, pre-dating the 20th century. Generally, this debate has proceeded along two sides. On the one side have been those who believed the purpose of education was to train students to serve employer needs and provide avenues to economic mobility. On the other side of this debate were those who believed the purpose of education was the pursuit of knowledge and meaning. The noted scholar and educational pioneer, John Dewey, understood that these two sides need not be terminally opposed to one another, that education could satisfy both purposes, simultaneously providing occupational training while including personal meaning and better citizenry for the nation. For Dewey, the phrase “vocational education” meant preparation for one’s “life work.”

Dewey’s holistic view of vocational education did not achieve widespread acceptance during the 20<sup>th</sup> century, with many institutions separating occupational training from academic, or liberal arts, curriculums. However, many educators continued Dewey’s conception of holistic vocationalism and kept this philosophy alive in learning movements throughout the 20<sup>th</sup> century, and in this early part of the 21<sup>st</sup> century, Dewey’s holistic conception of vocational education is gaining momentum as labor-market and economic experts call for students to be better prepared with appropriate skill sets to meet the challenges of the rapidly transforming

modern workplace and world. Additionally, researchers have concluded that traditional methods for educating students have not achieved these desired results. On the other hand, research suggests that students will achieve learning gains when they are exposed to dynamic, student-centered learning activities that are contextualized within their fields of study.

### **BEHAVIORISM, CONSTRUCTIONISM, AND VOCATIONAL EDUCATION: A BRIEF HISTORY**

According to Berns and Erickson (2001), the history of career and technical education [CTE] in the United States dates back to the early twentieth century, when David Snedden and Charles Prosser proposed that the purpose of public schools was to serve the needs of society, which was interpreted by many to mean that public education should train students to become efficient workers to further the goals of capitalism. This philosophical strain converged with the proposal of E.L. Thorndike's behaviorist theory of education: that learning was based on the interaction between stimuli and response and, therefore, students would learn correct work and moral behavior through teachers' application of a reward system.

At about the same time, John Dewey developed an alternative approach to what he termed "vocational" education. John Dewey also believed that public education should serve the public good; however, Dewey focused on the development of a democratic society, which required literacy and critical thinking of its citizenry. Dewey saw the development of occupational skills as a part of a larger purpose: that of educating students to lead satisfying and meaningful lives. Dewey recognized that quality occupational education would provide the paths for students to upward social mobility through increased opportunities in the labor market. Further, Dewey's approach, while recognizing and responding to the needs of

employers, was characterized by a commitment to occupational instruction consisting of the following components:

the full intellectual and social meaning of a vocation . . . [and] include instruction in the historic background of present conditions; training in science to give intelligence and initiative in dealing with material and agencies of production; and study of economics, civics and politics, to bring the future worker into touch with the problems of the day and the various methods proposed for its improvement. Above all, it would train power of readaptation to changing conditions so that future workers would not become blindly subject to a fate imposed upon them. (Dewey, 2012, p. 328)

For Dewey, vocational education meant a philosophy of helping students to find their vocation, or life's work, or "occupations as careers rather than mere jobs, employment that provides personal meaning, economic benefits, continued development of the course of a life, social status, and connections to the greater society" (Grubb & Lazerson, 2004, p. 3).

Dewey's educational theories became the basis for a school of thought that took a different approach to that of behaviorism. This school of thought became known as constructionism, which was characterized by a focus on students as learners who actively construct their own knowledge. According to this model, students learn best when they are given opportunities to apply knowledge to new situations and can therefore integrate "new knowledge gained with pre-existing intellectual constructs" (Berns & Erickson, 2001, p. 2). Constructivists believe that "placing students in inert roles in abstract contexts are unlikely to advance the development of non-traditional learners ...because learners create meaning in relationship to experience, every learner's version of the world is unique, even when concepts are shared" (Baker, Hope, & Karandjeff, 2009, p. 10). According to a constructivist approach to

learning, the instructor's role is primarily one of creating conditions to promote learner engagement in the learning process.

According to Berns and Erickson (2001), rather than constructivism, behaviorist educational models dominated CTE models throughout the 20th century, yet a demand for students who were able to demonstrate the broader competencies that characterize the educational objectives of the constructivist approach was a recurring theme throughout the 20th century. In the early 1900s, with the advent of electricity, the automobile, aviation, skyscrapers, and other breakthroughs, technological change was sweeping America at a rapid pace. Educators and industrialists alike called for a different kind of education, not one that was singularly dominated by academic subjects, or liberal arts, but one that combined higher order thinking skills and "industrial intelligence" (Grubb & Lazerson, 2004, p. 8). Calls were made for education to be extended to all and for educators to promote the concept of lifelong learning. Paul Douglas, who would go on to become a US Senator, described the needed education as one that was "at once broader and narrower: broader in that it should include more training in industrial life, in hygiene, civics, and so forth; narrower in that trade training in the specific trade processes need not be so prolonged" (as cited in Grubb & Lazerson, 2004, p. 9).

### **ACADEMIC AND OCCUPATIONAL INTEGRATION IN THE 1990S**

Popular at the dawn of the 20th century, the concept of a broader education for vocational students experienced a resurgence in the 1990s, this time in a form known as academic and occupational integration [AOI]. The 1990s was a time of intense activity surrounding the concept of AOI and was sometimes referred to as a "new vocationalism"

reminiscent of Dewey. Prentice (2001) authored a comprehensive review of literature of the 1990s that addressed AOI; it described the then burgeoning interest in AOI as a reaction to the 1983 report, "A Nation at Risk," which criticized vocational education for "focusing too narrowly on entry-level, low-skill jobs" (Prentice, 2001, p. 80). Subsequent reports by multiple entities throughout the remainder of the 1980s and into the early 1990s called for a meaningful integration of academic content with vocational coursework (Prentice, 2001). In her review of the 1990s literature examining community college progress with AOI, Prentice found that AOI was being implemented sporadically and in isolation at various sites nationwide, though in both Michigan and Illinois, attempts were made to create statewide collaboration frameworks. Regarding the Michigan project, Prentice cited Teahen (1996), who described three structures for successful pilots, which featured various curricular designs: a learning community in which faculty instructing in the general education courses collaborated with those instructing the occupational courses to design integrated projects; a physics course featuring modules framed within occupation-specific scenarios; and hybrid courses blending both occupational and academic content.

Community colleges in other states also made significant attempts to bridge the academic and occupational divide: most of these attempts showed promising results, with faculty reporting increased motivation and tangible benefits for student learning. However, most of these projects did not lead to permanent implementation. Prentice found that most institutions failed to sustain AOI projects largely because of the "unwillingness of institutions to commit time and resources to develop integration" (2001, p. 88). Barriers Prentice found included faculty resistance, transferability of courses, lack of uniformity, lack of training for

instructors, lack of funding and release time for faculty, and perceptions of course quality.

Prentice concluded “rarely has AOI become more than a pilot project because its implementation demands time, money, and faculty dedication” (2001, p. 90). Prentice also noted that, up to that time, there was a lack of quantitative research regarding measurable student learning outcomes associated with AOI.

### **THE EDUCATION GOSPEL: AN ARGUMENT FOR INTEGRATION**

Grubb conducted significant research on academic and occupational integration throughout the 1990s, resulting in a cumulative book with co-author Lazerson, published in 2004. In this work, Grubb and Lazerson brought together findings from this decade of research to make key points about what they consider the dominant historical and current narrative surrounding vocational education in the United States, coining the phrase “The Education Gospel” to describe the major tenets of this narrative in American society. Grubb and Lazerson described these tenets as follows:

1. Similar to the narrative surrounding the previous century’s technological revolution, broad claims are being made about the changing nature of work and the need for workers to obtain higher order thinking skills than in previous generations (p. 1-2).
2. Due to the nature of this changing technological landscape, many of today’s jobs are growing obsolete, calling for workers to embrace the challenge of becoming lifelong learners (p. 2).
3. Obtaining these skills and jobs is key to individuals achieving upward mobility, or “The American Dream” (p. 3).
4. Industry, politicians, and the public, similar to what was happening at the turn of the last century, have grown critical of the results of public education, while at the same time stressing its importance (p. 3).
5. The most pressing challenge today is that academia is not innovating quickly enough to keep up with the pace of change (p. 6).

Additional variations of “The Education Gospel” that harken back to the turn of the 20th century include an understanding of education as the tool to “democratize” the nation (p. 11) by providing the keys for involved and ethical citizenship while at the same time providing equity of opportunity for marginalized populations.

Grubb and Lazerson critiqued this “gospel” by pointing out its limitations: in practice, vocationalism has often led to a “dominance of private goals over public purposes” (p. 14) by placing the needs of the employer over the needs of students and social good. Furthermore, Grubb and Lazerson pointed to Dewey, who foresaw that proponents of narrow vocationalism “who believe in the continued separate existence of what they are pleased to call the ‘lower classes’ or the ‘laboring classes’ would naturally rejoice to have schools in which these classes would be separated... All others should be united against every proposition, in whatever form advanced, to separate training of employees from training for citizenship, training of intelligence and character from training for narrow industrial efficiency” (qtd. in Grubb & Lazerson, 2004, p. 17).

Whether or not vocational education has promoted or hurt marginalized communities is a subject for “careful empirical analysis” but claims as to the speed of technological change requiring widespread vocational education have “indeed been exaggerated” (Grubb & Lazerson, 2004, p. 17-18). According to Grubb and Lazerson (2004), by “2000, only 28.8% of jobs were filled by individuals with education beyond the high school diploma” (p. 18). By 2004, traditional vocational areas only compromised 12% of all postsecondary enrollments (p. 97). On the other hand, by 2004, the highest growth rate of educational occupational category was in jobs requiring an associate degree (p. 19). Additionally, modernized occupations that “include a

great deal of academic content in math, sciences, reading and writing—we might even call them knowledge-based occupations” (p. 97) lead to higher economic returns than either traditional vocational or academic programs.

Grubb and Lazerson (2004) laid out six specific recommendations for community colleges to capitalize on this trend and bring about economic and personal benefits for their students (p.102-106):

1. Community Colleges should focus their efforts on improving the teaching that takes place within their institutions. They should pride themselves on teaching well by strengthening the “mechanisms that support high-quality teaching” (p.103).
2. Build bridges between all areas of the college to improve compatibility of programs and levels of education and streamline the experiences for students with effective advising and a limiting of student options.
3. Dedicate themselves to the goals of occupational education by providing adequate funding for equipment, small class sizes, and effective teacher training, as well as sufficiently linking preparation between academic and occupational disciplinary content.
4. Balance occupation specific skills and employer needs with students’ long-term needs. Be in tune with local and wider labor market trends to target sustainable occupations with solid earnings potential that provide opportunities for growth and advancement for students over the course of their careers. Foster better relationships with local employers to provide work-based opportunities for students, while at the same time, refrain from such over-specialization as to lead to soon-to-become obsolete skill sets.
5. Reframe the narrative surrounding occupational education so as to remove its second-class status. Promote the understanding that occupational associate degrees often lead to higher economic returns than traditional academic paths.
6. Promote high levels of general education for occupational students in order to develop both their intellect as well as their marketability: “integrate academic, intellectual, and critical concerns with the knowledge and materials of occupational education” (p.105).



Grubb and Lazerson described their vision for the implementation of their recommendations as a benefit to all: “If we as a nation decided to make community colleges all they could be, they would offer a synthesis of broad occupational preparation and general education, reflect a commitment to excellence in their own terms and to equity in both access and completion, and become comprehensive institutions serving many purposes with bridges between them” (2004, p. 106).

### **CONTEXTUALIZED TEACHING AND LEARNING: DEFINITION, FRAMEWORK, AND RESEARCH**

One method of academic and occupational integration that shows promise is that of contextualized teaching and learning, a model that draws heavily from the constructivist approach to CTE and holds potential for helping students achieve the broad and narrow objectives of a Deweyan 21st century skill set. CTL has been defined by Berns and Erickson (2001) as a “conception of teaching and learning that helps teachers relate subject matter content to real-world situations and motivates students to make connections between knowledge and its applications to their lives as family members, citizens, and workers” (p. 2).

Research concerning contextualized teaching and learning in CTE has focused primarily on contextualized teaching and learning in secondary education. Research was conducted by the National Research Center for Career and Technical Education (NRCCTE) “to determine if core academics when integrated effectively into CTE courses could move the needle of student achievement” (Park, Pearson, & Richardson, 2017, p. 193). The NRCCTE funded three studies for this purpose: Math-in-CTE, Literacy-in-CTE, and Science-in-CTE (2010). All of these studies were conducted in high school settings. These studies and results are described as follows.

## **Math-in-CTE**

The Math-in-CTE study researcher hypothesized that “mathematics learning and transferability of skills would improve when CTE teachers used the math utilized by a particular occupation as a springboard for more advanced mathematics instruction” (Park, Pearson, & Richardson, 2017, p. 194). This was an experimental research study which consisted of a treatment group and a control group. In the treatment group, CTE and math faculty members collaborated to identify math concepts embedded in CTE curriculum, instruct students in relation to the CTE applications first, and then transition students toward an understanding of the broader mathematics concepts embodied within the CTE applications. In the control group, the instructor provided instruction as usual. After participating in one year of instruction that included math contextualization, the treatment group in the study was significantly positively affected by the treatment as measured by traditional and college placement math tests, and the treatment group experienced no decline in technical skill or CTE content knowledge due to their participation in contextualized instruction, as measured by occupational tests (Stone, Alfeld, & Pearson, 2008, p. 787). The sample size was 136 classrooms (57 experimental and 79 control group classrooms), consisting of more than 3000 students. Additional research conducted by Lewis and Pearson (2009) into the sustainability of the Math-in-CTE approach found that, after the first year in which faculty received funding to participate in professional development and curriculum revision, 73% of the CTE faculty and 66% of the math faculty continued to use the contextualization process and pedagogy to make improvements to their teaching (as cited in Park, Pearson, & Richardson, 2017, p. 194).

## **Literacy-in-CTE**

The Literacy-in-CTE study sought to determine if contextualization of literacy strategies within a CTE framework would enhance students' reading comprehension and vocabulary. In this experimental study, CTE instructors for the treatment group participated in extensive professional development, learning to implement the MAX framework [Motivate, Acquire, eXtend] or the Ash framework (a reading strategy consisting of six elements) for embedding reading and writing across the CTE curriculum. Teachers were randomly assigned to treatment or control groups during the pilot phase of the study, and those who received professional development during the pilot study were invited to continue to participate in the full study. The researchers found that both MAX and Ash treatment groups received significantly higher post-test vocabulary, comprehension, and total GMRT (Gates-MacGinitie Reading test) post-test scores (Park, Pearson, & Richardson, 2017, p. 196).

## **Science-in-CTE**

Similar to the math and literacy studies, the Science-in-CTE study examined the effects on student science knowledge and abilities when exposed to science instruction contextualized with a CTE-curriculum. However, the Science-in-CTE study also sought to examine the experience of teachers who participate in the curriculum integration process. In this study, similar to the Math-in-CTE study, CTE instructors partnered with science instructors to collaborate on curriculum development. Interestingly, this study found that students who scored in the 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> quartile for science achievement as scored on the pre-test benefited from the contextualized approach, which had a positive impact on their science

achievement scores as measured by the post-test; however, students in the 1<sup>st</sup> quartile on the pre-test did not show that the intervention brought about significant improvement (Park, Pearson, & Richardson, 2017, p. 198). Furthermore, the intervention did not show any impact on white students; however, non-white students' post-test scores improved by an average of 1.42 units, a moderately positive effect (Park, Pearson, & Richardson, 2017, p. 199).

Additionally, the study found that both CTE and science instructors experienced positive benefits from the collaboration, including an assuagement of the feelings of isolation that often accompany teaching, deeper respect for faculty within other disciplines, and re-thinking their teaching approaches. The study also found that "issues of time and timing posed the greatest obstacles to teachers' ability to implement the model" (Park, Pearson, & Richardson, 2017, p. 200). These findings hearken back to Prentice's earlier findings that time was one of the biggest barriers to sustainable AOI in community colleges (2001).

### **Risks of Contextualized Teaching and Learning in Career and Technical Education**

Some concerns have been raised that the academic and occupational integration could dilute the strength of student proficiency in program technical learning outcomes; however, so far, research has not borne this out. Parr, Edwards, and Leising (2008) conducted a study in 2004 that implemented the same Math-in-CTE model developed and studied by the NRCCTE. However, the focus of this study was the effect of contextualization on student technical competence rather than mathematics achievement. The researchers investigated whether the integration of academic content into vocational curriculum would harm students' technical skills related to agricultural power and technology compared to students enrolled in a program

featuring traditional instructional methods. The researchers employed an experimental multiple group post-test only design featuring random assignment to examine students' technical competence after completion of traditional and integrated vocational curriculums. The experimental group received the integrated curriculum, and the control group received the pre-existing, traditional curriculum. Student technical competence was measured by a post-test, the National Occupational Competency Testing Institute [NOCTI] Agricultural Mechanics Examination. The teachers in the experimental group were partnered with math faculty who worked with them to develop a math-enhanced curriculum contextualized within the agricultural power and mechanics curriculum. The pairs identified mathematical concepts in the existing agricultural curriculum that aligned with mathematics standards. The teachers then developed a series of integrated lessons to facilitate student learning of these mathematical constructs. According to Parr, Edwards, and Leising (2008), "The results of this study indicated that the math-enhanced lessons delivered through the context of agricultural power and technology did not significantly diminish students' acquisition of technical competence ( $p = .883$ ). These findings suggest that the intervention described in this manuscript may be a viable way of increasing student math achievement (Parr, 2004; Parr et al., 2006) without decreasing the acquisition of technical knowledge and skill" (p. 67-68).

Parr, Edwards, and Leising (2008) concluded that the infusion of enhanced mathematics lessons integrated with the occupational curriculum did not negatively affect students' technical competence; therefore, the findings suggest that use of the intervention described in the study shows promise for increasing student mathematics proficiency without damaging

occupation specific skills. The authors suggested that further research is needed regarding curriculum integration efforts in other academic areas.

Young (2006) extended the Parr, Edwards, and Leising study (a pilot lasting only one semester) to a full academic year. Young also investigated the potential negative consequences of contextualization on student technical skills and additionally investigated the effects of contextualization on student math achievement. Young's study confirmed Parr, Edward's, and Leising's findings that contextualization did not harm student technical competency. Young also investigated the impact of contextualization on student math achievement and found no significant difference between groups in mathematics competency or student ability to transfer mathematical concepts to new situations.

Clearly, contextualized teaching and learning has potential for bolstering student learning in high school CTE programs and in community college developmental education programs. Research also suggests that contextualized teaching and learning shows promise for improving student learning in occupational programs with few drawbacks. Several community and technical college systems have adopted this approach to improve remedial, or developmental, education outcomes for students within occupation programs. However, little attention has been paid to CTL of college level academic outcomes and little research has been conducted. After conducting an extensive review of literature concerning contextualized teaching and learning for occupational programs, Perin (2011) concluded: "No studies of integrated instruction at the college level were identified" (p. 274).

## **WHY CONTEXTUALIZED TEACHING AND LEARNING IN GENERAL EDUCATION?**

Clearly, contextualized teaching and learning has potential for bolstering student learning in high school CTE programs and in community college developmental education programs. Research also suggests that contextualized teaching and learning shows promise for improving student learning in occupational programs with few drawbacks. Several community and technical college systems have adopted this approach to improve remedial, or developmental, education outcomes for students within occupation programs. However, little attention has been paid to CTL of college level academic outcomes and little research has been conducted. After conducting an extensive review of literature concerning contextualized teaching and learning for occupational programs, Perin (2011) concluded: “No studies of integrated instruction at the college level were identified” (p. 274).

### **21<sup>st</sup> Century Skills are General Educational Learning Outcomes**

Demand for students to meet broad educational goals has arisen once again with today’s demand for 21st century skills by employers, and many of these skills are also needed to achieve the same Deweyan ideals of an engaged citizenry prepared for productive civic participation and meaningful living. One of the newest terms for the current version of industry need is the T-Professional: according to Gardner and Estry (2017), employers are seeking “differently educated and prepared college graduates who can quickly adapt to innovation and rapid change in the workplace,” which can be illustrated with the capital letter T. In other words, employers are looking for those who embody the characteristics of depth, “defined in terms of disciplinary knowledge and the ability to understand how individuals with that

knowledge function and interact,” and breadth, defined as “the professional abilities that allow someone with profound disciplinary knowledge to interact meaningfully with others who possess different disciplinary knowledge in order to affect an outcome that might not otherwise be possible” (Gardner & Estry, 2017, p. 1). Furthermore, according to the American Association of Community Colleges, college graduates must be “not just globally competitive, but also globally competent, understanding their roles as citizens and workers in an international context” (2012, p. viii). DeCamillis (2015) confirmed that employers in Michigan desire these competencies among new hires, and Soffel (2016), with The World Economic Forum, further categorized the needed skills into three categories: foundational literacies, competencies, and character qualities.

Employers are finding recent graduates inadequately prepared with the foundational literacies to meet the needs for writing in the workplace. Not only are students largely unable to write competently, but they are also lacking in rhetorical decision-making abilities. In other words, they choose inappropriate mediums such as texting when dealing with a serious company issue (Carlson, 2017, p. 24). Other types of literacies are also essential. These include numeracy, scientific literacy, ICT (digital information literacy), financial literacy, and cultural and civic consciousness (Soffel, 2016). Beyond these foundational literacies, students need to develop the ability to “do” certain things. These are termed competencies, and the most desired among tomorrow’s graduates are critical thinking or problem solving, creativity, communication, and collaboration (Soffel). Current and future employers will be looking for the character qualities of curiosity, initiative, persistence or grit, adaptability, leadership, and social and cultural awareness (Soffel).



While there will be a strong demand for graduates with the foundational literacies, competencies, and character qualities that are traditionally associated with a liberal arts curriculum, the most desirable 21st century skill set goes beyond the traditionally dichotomizing notion of STEM *or* liberal arts; the most sought after and highly paid employees will have skill sets that include hard and soft skills, or an integration of liberal arts/general education competencies with STEM or occupationally specific skills (Carlson, 2017, p. 4). According to Lorenzo, “The fastest-growing category of employment in advanced economies like the US are ‘interaction’ jobs, meaning jobs that require complex interactions and require deep knowledge, and independent judgment” (2013, p. 8). In order for community colleges to achieve these complex learning goals for students, faculty in fields traditionally associated with general education or “transfer” courses are being called upon to re-envision both their disciplinary function and how discipline-centric instruction can support the needs of students in all majors while preparing them to meet the challenges of the 21<sup>st</sup> century. At the same time, CTE or vocational instructors are being called upon to consider how to broaden their instructional plans to promote the development of broader skill sets.

### **General Education Outcomes are Discipline-specific**

Hoffman Beyer, Gillmore, and Fisher (2007) conducted an extensive, four-year, mixed-methods *Study of Undergraduate Learning at the University of Washington* [UW-SOUL] concerning six general education learning outcomes:

- Personal growth: the extent students changed during undergraduate study, including how their sense of themselves evolved over time

- Understanding and appreciating diversity: the extent students' attitudes about cultural and ethnic diversity changed over the course of their education
- Critical thinking and problem solving: the ability to defined and solve problems, and the ability to analyze written information
- Writing: the ability to use writing as thinking and as a means of communicating thought
- Quantitative reasoning: the ability to use numbers to justify products and policies, and to extend the use of quantitative reasoning into other areas of thinking
- Information technology and literacy: "locating information needed to help make decisions or solve problems" (p. 44)

Of the six general education learning outcomes studied in the UW-SOUL, only personal growth was found not to be discipline-specific. The remaining five learning outcomes appeared highly differentiated according to a student's field of study.

Regarding the outcome "understanding and appreciating diversity," Hoffman Beyer, Gillmore, and Fisher (2007) concluded that "the curriculum of major affects one's attitude about the value of diversity's contribution to learning" (p. 123). Engineering students valued the contribution of diversity to their learning consistently lowly across all four years, whereas humanities majors increased their value of diversity's contribution to their learning. Excepting business, students in other majors demonstrated that their valuing of diversity decreased by the fourth year of undergraduate education (Hoffman Beyer, Gillmore, & Fisher, p. 122).

Furthermore, when responding to a seven-category survey asking students to report on their learning about diversity, the researchers found statistically significant differences in means between disciplines for all categories except one: "communicating effectively with people from other groups" (Hoffman Beyer, Gillmore, & Fisher, p. 132). The researchers also found that majors in humanities, business, the arts, and social sciences learned more about diversity than

those in engineering and the sciences. Based on these findings, the UW-SOUL researchers recommended that departments “determine what their majors should know and experience regarding diversity and assess whether their majors are learning those things” (Hoffman Beyer, Gillmore, & Fisher, p. 142). Furthermore, the researchers contend that “institutions need to build structures for interaction that cross disciplines and ethnicity” (Hoffman Beyer, Gillmore, & Fisher, p. 142).

The critical thinking and problem-solving outcome was so discipline-specific that the UW-SOUL research team concluded that “generic definitions” of critical thinking and problem solving “ignored the ways disciplines shade, shape, and bind what students do when they are thinking critically or solving problems” (Hoffman Beyer, Gillmore, & Fisher, 2007, p.146). Hoffman Beyer, Gillmore, and Fisher argued that the tasks typically included under this heading, including recognizing and defining problems, identifying stakeholders, gathering information that relates to the problem under consideration, choosing the best alternative after weighing related evidence, and testing the argument” are so specific to student field of study as to be “context bound” (p. 147). The UW-SOUL researchers discovered that the general terms “critical thinking” and “problem solving” were not applied by faculty in several fields that have their own terminology. For example, in Architecture and Urban Planning, “design thinking” was the more specific cognitive processes required in the field (Hoffman Beyer, Gillmore, & Fisher, p. 160), and in Art, faculty engaged students in “problem-seeking” rather than in problem solving (Hoffman Beyer, Gillmore, & Fisher, p. 164). The authors concluded that their findings have significant implications for the improvement of student learning. They suggest that, early in their postsecondary careers, students should be made more aware of the differences between

fields in “intellectual values, approaches, and goals,” that institutions should consider moving away from the term “critical thinking” to “disciplinary thinking,” and that faculty should “be explicit in teaching their students how to do the kinds of thinking” required in the field (Hoffman Beyer, Gillmore, & Fisher, p. 197). The authors believed that a heightened awareness of disciplinary differences could help faculty to “better understand their own blind spots” and allow them to better help students navigate the “intellectual maze” of the institution (Hoffman Beyer, Gillmore, & Fisher, p. 198).

Two areas in which there is relatively widespread understanding of the discipline-specific nature of general education outcomes are reading and writing. The concept of disciplinary contextualized reading instruction dates back to the 1960s in the United States with the work of pioneer in the field of reading instruction, Harold Herber. Herber’s work was central to the development of the “reading-in-the-content-areas” movement. This movement called for schools to provide professional development and in-service opportunities for collaborative partnerships between reading and disciplinary faculty. Herber advocated that “research findings need to be made practical and translated into classroom practice” (1967, p. 6).

The writing-across-the curriculum movement also has a lengthy history. According to Russel, discussion and debate surrounding this issue reaches back to the 1870s, when educators began seriously wrestling with “the conflict between pressure to increase specialization of knowledge and of professional work (upholding disciplinary standards) and pressure to integrate more fully an ever-widening number of citizens into intellectually meaningful activity within mass society (promoting social equity)” (1991, p. 23). By the turn of

the 20th century, Dewey and his contemporaries sought to bridge this divide, perceiving progressive public education, as Russel described it, as an opportunity to “weave together the interests of the learner with the structures and activities of the disciplines through increasingly more sophisticated uses of language, balancing in a range of discourse the personal and private experience of the student and the public and impersonal knowledge of the community” (p. 27). Throughout the first half of the 20th century, social and economic changes impacted the currents of educational movements, with the humanistic ideals of the constructivist approach that embraced contextualized learning largely giving way to the behaviorist approach of discreet skills to be taught in isolation. However, pockets of interdisciplinary collaboration persisted and gave rise to the founding of the Conference on College Composition and Communication (CCCC) in 1949. CCCC developed into a community of practice for teachers of college writing and became an organization that promoted research and research-based classroom practice. Similar to the history of the reading-in-the-content-areas movement, the work of researchers in the 1960s led to an increased understanding of the need for contextualized writing instruction, and experimental approaches began to crop up. By the mid-1970s, the movement had coalesced into a true Writing Across the Curriculum (WAC) movement. By 2012, The National Council of the Teachers of English had published a “Framework for Success in Postsecondary Writing,” which laid out desired outcomes for writing curriculum, a list that resembled the learning outcomes embraced by both colleges and employers and described as 21<sup>st</sup> century skills. These outcomes included the following:

- Curiosity - the desire to know more about the world.
- Openness - the willingness to consider new ways of being and thinking in the world.

- Engagement - a sense of investment and involvement in learning.
- Creativity - the ability to use novel approaches for generating, investigating, and representing ideas.
- Persistence - the ability to sustain interest in and attention to short- and long-term projects.
- Responsibility - the ability to take ownership of one's actions and understand the consequences of those actions for oneself and others.
- Flexibility - the ability to adapt to situations, expectations, or demands.
- Metacognition - the ability to reflect on one's own thinking as well as on the individual and cultural processes used to structure knowledge. (NCTE, 2012, p. 525)

The NCTE framework also described a need to prepare students for “the writing challenges in the full spectrum of academic courses and later in their careers” (2012, p. 526).

While movements toward contextualized instruction have been established since the 1970s and have taken root in many liberal arts colleges and universities, these approaches gained spotty traction in community colleges. For example, in 1987, a survey of members of the American Association of Community and Junior Colleges found that only 1/3 of respondents reported an active WAC movement (Stout & Magnotto, 1991). Recently, however, broad understanding of the need for contextualization has once again been gaining ground, in part due to the efforts of organizations such as WestEd and the University of Texas at Austin’s Charles A. Dana Center. WestEd’s Reading Apprenticeship Model provides both faculty professional development to promote reading and communicative fluency in discipline-specific courses; further, contextualization of mathematics instruction has been widely promoted by the work of the Charles A. Dana Center.

## **Research Regarding Discipline-Specific Contextualization in Academic Courses**

In most research studies regarding contextualized teaching and learning [CTL], academic content has been integrated within occupational or discipline-based courses, such as the NRCCTE funded Math-in-CTE, Literacy-in-CTE, and Science-in-CTE studies discussed previously in this chapter (2010). However, an alternative approach was taken by Lau (2015) at a midwestern community college. In this study, developmental reading courses were contextualized by connecting reading strategies to content in students' fields of study (health professions, criminal justice, business, automotive technology, or diesel-powered technology). This experimental study used a pre-test, post-test multiple group design. Lau found that CTL shows promise for improvement of academic learning outcomes and emphasized that academic improvement is but one of the benefits. Research also indicates that CTL may provide students with other benefits including a "heightened sense of belonging and integration within the institution" (Scrivener et al, 2008, as cited in Lau, 2015).

## **THE ELEMENTS AND IMPORTANCE OF EFFECTIVE INSTRUCTIONAL DESIGN**

The role of faculty and instruction is crucial to student success. As discussed in Chapter One, faculty are highly influential in students' establishment of a sense of "competent membership" in college—a sense of possessing the knowledge and skills required to be successful and of being included in the college community (Barnett, 2011, p. 200). As previously noted, Barnett's research added emphasis to the importance of faculty relationships on students' departure decisions in Tinto's model (2011).

Student sense of connection to faculty is clearly one important component of student success. The faculty role is central to the learning and growth that students experience while enrolled in college. Today's most effective instructors understand that they best serve students when they approach the instructional task in the role of *facilitator* of student learning and therefore emphasize active student learning in their teaching plans, rather than students passively listening and viewing an instructor's teaching presentation. In other words, teachers who create learner-centered instructional activities find that student experience more growth in several areas: research shows that the act of granting students more control in their learning, providing them with greater levels of autonomy, improves not only their motivation and engagement but also heightens the achievement of learning outcomes and improves students' ability to transfer their learning to novel situations (Wilengea-Meijer et al., 2011). Weimer (2013) conducted an extensive review of the research surrounding learner-centered teaching. Based upon this review, she distilled five underlying principles of effective learner-centered teaching practice:

1. Teachers let students do more learning tasks
2. Teachers do less telling so that students can do more discovering
3. Teachers do instructional design work more carefully
4. Faculty more explicitly model how experts learn
5. Faculty engage student to learn from and with each other.

Another area of research that has strong implications for teachers in college classrooms is around the concept of mindset. Those who hold a fixed mindset tend toward the notion that intelligence is fixed; whereas those that hold a growth mindset understand that there is growth



potential in all human beings and that intellectual capacity can be developed. Research suggests that teachers can intervene to close learning gaps and boost student learning and success among at-risk students by intentionally fostering the development of a growth mindsets in their students (Claro, Paunesku, & Dweck, 2016).

As discussed in Chapter One, research has indicated that faculty who leverage certain instructional strategies, known as high impact practices (HIPs), are correlated to student success. HIPS include the following strategies (AACU, 2017):

- First-Year Experiences
- Common Intellectual Experiences
- Learning Communities
- Writing-Intensive Courses
- Collaborative Assignments and Projects
- Undergraduate Research
- Diversity/Global Learning
- Service Learning, Community-Based Learning
- Internships
- Capstone Courses and Projects

Researchers Bonet and Walters (2016) conducted a pilot study regarding the effect of high impact practices in the context of a learning communities approach at Kingsborough Community College. In the study, students were grouped into cohorts taking a structured blocked program of study including developmental English, a student skills course, and a social or behavioral science course. Of note, in Bonet and Walters' Kingsborough study, participating faculty members were also required to complete certification in Writing-Across-the-Curriculum

instruction. Bonet and Walters found that students participating in the learning communities/ high-impact practices pilot were less likely to be absent and had higher levels of engagement, better grades, and improved course completion rates. Bonet and Walters' study was an extension of research conducted in an earlier four-year follow up study of six community college learning communities programs which indicated that the learning community approach had both positive impacts on student persistence and graduation rates (Weiss et al., 2012, as cited in Bonet and Walters, 2016). Bonet and Walters' study confirmed the earlier findings.

## **SUMMARY**

A close examination of publications by today's economic and labor-market forecasters reveals that many are calling for today's students to be better prepared with what are known as 21st century learning outcomes. Due to significant changes brought on by artificial intelligence and automation, experts describe a need for students to be more adaptable, better at problem-solving and critical thinking, more creative, better at collaborating, globally and culturally literate, and highly effective in communicating, among other expectations.

There has been historical debate about whether the purpose of higher education is to meet labor market demands or if the purpose is something more aspirational, to create enlightened human beings ideally suited to be excellent citizens who are well-equipped to participate in democracy. The tension surrounding the purpose of higher education has typically put those favoring the purpose of employment preparation on one side of this debate, with those who favor the purposes of meaningful enlightenment on the other side. However, as early as the beginning of the 20th century, Dewey and his followers imagined that these two

sides need not be terminally opposed to each other. Dewey saw a person's educational journey as one which could and should hold all of these possibilities simultaneously, that education could provide opportunity for economic mobility, while also adding personal meaning to one's life and better citizenry for the nation. Many educators have agreed with Dewey and kept this philosophy alive through a variety of learning movements over the years, including the movement of academic and occupational integration of the 1990s and the reading and writing across-the-curriculum movements.

Recently, similar ideas have been taking hold in higher education as research has provided a growing understanding of the discipline-specific nature of general education outcomes and the value of contextualizing these outcomes within student fields of study. Perhaps not surprisingly, these general education learning outcomes are nearly identical to the 21st century learning outcomes that experts claim that students need. By engaging students in learning activities that promote their attainment of relevant learning outcomes in the contexts of their fields of study, faculty can simultaneously help their students to be successful in the job market and participate meaningfully in all aspects of life in the modern world.

## CHAPTER THREE: METHODOLOGY

### **INTRODUCTION**

*A Toolkit for 21<sup>st</sup> Century Teaching and Learning* (see Chapter 4) was developed with an audience of community college faculty in mind. It introduces instructors to the shifting needs of today's learners and includes a collection of relevant, ready to use teaching materials that are supported by brief discussions of corroborating research. This toolkit grew out of the convergence of my Ferris State Doctorate of Community College Leadership coursework with my experiences as a community college instructor. This product is not intended to be a definitive work but rather a relatively short, user-friendly handbook. It begins with an introduction to the changing workplace and society's emerging challenges. The introductory chapter describes a student-centered approach to learning and high impact practices in teaching. The subsequent three chapters provide concrete examples that illustrate the principles of this approach. The goal is two-fold: to emphasize the dynamic nature of today's learning landscape and to provide faculty with the theoretical underpinnings and resources to support active learning that adequately prepares students with relevant, future-facing skills.

### **NEED FOR THE PRODUCT**

Unfortunately, despite growing awareness of the need for an updated approach to instructional design, most community colleges continue to funnel resources into initiatives that focus primarily on the student experience outside of the classroom, such as wrap-around

supports like academic advising and career counseling, rather than on initiatives aimed at improving students' academic engagement. This approach ignores the central function of a college, that of student learning. A key problem with this approach is the lack of pedagogical training of many community college faculty members who are frequently hired for their field expertise, rather than their teaching experience or preparation as an educator. Therefore, many new instructors rely on the memory of their student experience to shape their approach to teaching. On the other hand, there are community college faculty members with years of experience in teaching who have experienced extensive professional development through formal educator preparation programs or an amalgam of conferences, workshops, and trainings. Even for these highly experienced educators, it can be difficult to juggle the full-time teaching load typical in a community college setting while keeping up with labor-market trends and simultaneously creating new, engaging, relevant, and challenging learning experiences.

According to multiple sources, including economic, workforce, and academically focused organizations, the path to success in the 21<sup>st</sup> century economy includes obtaining not only field-specific knowledge but also “a broader set of general problem-solving and critical-thinking skills to perform new tasks” (Carnevale, Strohl, Ridley, & Gulish, 2018, p. 7). Rapid improvements in automation and artificial intelligence are making repetitive and even many analytical capabilities redundant; “These new realities of work require new sets of soft skills, including teamwork and leadership, to facilitate collaboration” (Carnevale, Strohl, Ridley, & Gulish, p. 7). To obtain such complex skill sets, students need to experience instruction that develops these capabilities. Extensive research by Hoffman Beyer, Gillmore, and Fisher (2007) demonstrates that such skills are best developed through contextualized instruction.

The understanding of the need for contextualized instruction has been embraced and promoted through the on-going efforts of many organizations through which instructors can find resources, support, and training. For example, the University of Texas at Austin Charles A. Dana Center provides resources and courses to promote the development of contextualized instruction through Mathematics Pathways. Furthermore, the Reading Apprenticeship Model by WestEd provides both face-to-face and online courses developed specifically to help disciplinary faculty learn to provide contextualized reading instruction, while the California Acceleration Project supports faculty to develop critical thinking learning outcomes in co-requisite composition courses. Several resources in this product were derived from or inspired by California Acceleration Project and WestEd materials.

Of course, there are many sources of instructional materials and inspiring ideas available to teachers. For example, [teacherspayteachers.com](http://teacherspayteachers.com) includes more than three million lesson plans and other resources created by educators, for educators, with many resources that are free or require a minimal payment of less than \$5. Teachers Pay Teachers is an online marketplace for instructional materials; however, it focuses primarily on discipline-specific instruction in K-12 schools. As of July 2020, the site also included more than 600 resources related to higher education and some specifically for community college educators. Resources in the higher education category fell mostly in one of two categories: 1) nontransferable, discipline-specific resources, and 2) college success strategies such as study skills or accessing resources.

*A Toolkit for 21<sup>st</sup> Century Teaching and Learning* was conceived of to be a unique addition to the materials that are already available to teachers. The purpose is to provide

community college teachers with both the background information to help them understand the need for contextualized instruction in 21<sup>st</sup>-century skills, concepts, and habits of mind and a selection of materials ready for use in their classrooms.

## **PROCESS OF RESEARCH AND PRODUCT DEVELOPMENT**

This project had its origins in a class that was part of the coursework in Ferris State University's Doctorate of Community College Leadership (DCCL) program: "Critical Trends and Issues in the Community College." While taking the "Critical Trends" class, I was exposed to the workforce development function of the community college, and I became acquainted with research regarding changing labor markets. Despite having a career that spanned nearly twenty years in higher education, I had never received professional development or taken coursework that included a discussion of the relationship between general education learning outcomes and a graduate's employability. According to my experiences as an English instructor, the sole concern of community college liberal arts and general education programs seemed to be preparing students for successful transfer to university programs; further, it had been my perception that the sole concern of the "occupational" side of the college was to prepare students for employment. The experience in this class sowed the seeds of interest, and I began exploring the connections between the general education functions of the college and the external demands for employability of graduates.

The instructional materials in this product were developed through an iterative process that truly began in the Fall of 2000, when I taught my first College Composition course at Northern Michigan University in Marquette, Michigan, and began laying the foundation for my

subsequent development as a teacher. However, the materials I have selected for inclusion in this product work primarily grew out a two-year period of intense experimentation of incorporating various fields of research into my practice as a community college English teacher. I began revising existing learning activities and even redesigned entire classes. For example, the creation of a theme-based composition class grew out of research connecting the work of Peter Adams' Accelerated Learning Project, the California Acceleration Project, and reports by the World Economic Forum. I reviewed learning materials and repeatedly revised them to improve student engagement and learning; the project grew into what came to be a collection of resources to effectively facilitate dynamic learning.

#### **DESCRIPTION OF THE PRODUCT**

*A Toolkit for 21<sup>st</sup> Century Teaching and Learning* is an e-book that is both a primer to acquaint community college instructors with the need for developing updated learning outcomes and a collection of materials for engaging students to support their achievement of these learning outcomes. This toolkit was not intended to be an exhaustive resource but rather a representative sampling of activities, assignments, and approaches to student learning that are readily adaptable for use and easily contextualized within a variety of disciplines and learning situations, including both general education and occupationally focused, discipline-specific courses.

Some of the methods described in this resource have been adapted from materials developed by others, including experts in the field of teaching and learning, while others were created by me through an iterative process over several years of teaching. Some of the learning



activities and frameworks included in this resource are ready to use as presented, while others will require varying levels of adaptation to each unique context and practitioner.

The e-book was meant to be accessible and engaging, with a professional appearance that includes timely and representative images. The photographs and images included in the e-book were taken from three sources: the first two sources are Pixabay and Pexels, websites that host royalty-free images with open-access licensing. The third source of images is a personal collection of photos taken by me in my classroom. They depict students engaging in the described activities.

## **CONTENTS AND ORGANIZATION**

The contents of this resource include an introduction and a materials section that includes three chapters. The introduction makes a case for the need for updated instructional programming and practice in community college. It provides a discussion of 21<sup>st</sup> century skills as general education outcomes, the need for contextualization of general education learning outcomes, and effective instructional practice to facilitate learner attainment of these outcomes. A final, fifth chapter was added during the Coronavirus pandemic of 2020-21 to include discussion and strategies for engaging students in virtual classrooms using videoconferencing tools. A list of references completes the handbook.

The three chapters in the materials section were developed around themes, or learning outcomes, that resonate broadly across lists of desired learning outcomes as developed by economic, workforce, and academic organizations. The selected outcomes are the following:

1. Critical and Creative Thinking

2. Communicative fluency
3. Collaboration and Teamwork

Each of the three “materials” chapters includes a list of linked headings for easy access to each resource. Each materials section begins with a discussion section that is followed by the materials section. The discussion section of each chapter describes origins of the materials that have been adapted from other sources, including organizations and individuals who developed the original materials, as well as historical background and theoretical underpinnings, as applicable.

The materials section of each chapter is a curated collection of activities, handouts, and assignments that align with a student-centered, active-learning instructional approach. They were selected for their applicability to the selected learning outcomes and for their ease of adaptability to multiple disciplinary contexts. These materials were also selected due to the success I have experienced with their use, the excitement they generate among students, and the influential role they played in building a sense of scholarly community in both developmental and traditional community college classrooms. These activities put students in the driver’s seat when it comes to their learning, or, in other words, they grant students autonomy, or freedom to make choices, in their work. A key understanding of this approach is that student autonomy improves not only student motivation and engagement, but also heightens the achievement of learning outcomes. Autonomy especially improves students’ ability to transfer their learning to novel situations, an object of particular importance for today’s students, in hopes they become well-equipped to problem solve in response to the constantly changing modern environment (Wilengea-Meijer et al., 2011). Often, these activities

were coupled with opportunities for students to research about the rapidly changing technological, socioeconomic, and employment landscapes, as well as to discuss them openly and draw their own conclusions.

These materials also particularly emphasize the following high impact practices, as discussed in Chapters One and Two of this work: common intellectual experiences, collaborative assignments and projects, undergraduate research, and community-based learning. They were designed to maximize student engagement and are intended for free use, sharing, and modification for educational purposes. It is hoped that this resource will inspire and invigorate teachers so that they can empower today's community college students to succeed in tomorrow's world.

## **SUMMARY**

Often, community college reform efforts take a “hands off” approach when it comes to instructional design. However, many community college teachers lack either an understanding of effective instructional practice or of employability needs of graduates, and sometimes they lack both. While there are many free and low-cost resources that instructors can turn to for help, few of the resources reflect transferable teaching materials designed to promote future-facing skills that are also easily contextualized across a variety of fields of study. As a community college English teacher and a student in the DCCL program, I found myself at a unique vantage point for viewing the intersection of community college, liberal arts, and occupational missions with changing social and employment landscapes and understanding how students can be better equipped through effective instructional practice. Through an

iterative process of research and practice, I developed an array of teaching activities and assignments. This product includes an introduction to that research and the principles of effective practice with a curated collection of these materials. *A Toolkit for 21<sup>st</sup> Century Teaching and Learning* uses an attractive and accessible e-book format to place these resources directly into instructors' hands.

## CHAPTER FOUR: A TOOLKIT FOR 21<sup>ST</sup> CENTURY TEACHING AND LEARNING

The following pages contain the images of the e-book, *A Toolkit for 21<sup>st</sup> Century Teaching and Learning*.



# A Toolkit for 21st Century Teaching & Learning

by Nicole Ellet-Petersen

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# INTRODUCTION

Thus far, the 21st century has brought terrorism, war, a major recession, catastrophic weather events, mass shootings, and a global pandemic. Even the previously most isolated places in America feel the effects of the global refugee crises, the opioid epidemic, social upheaval in response to police brutality against people of color, and a bitterly divided political landscape that pits the healing of racial injustice and inequity against the economic well-being of many who have been left behind in rural America. In the midst of this turmoil,

a key factor dramatically reshaping the American social, labor, and economic landscapes often gets overlooked. This factor is the rapidly accelerating rate of technological change, in particular that being wrought by artificial intelligence, automation, and deep learning. Yet these changes and the inability of systems of higher education to keep up with industry transformation have widened the income gap between low-skilled and high-skilled workers (Carlson, 2017; Myran & Ivery, 2013). According to The World Economic

Forum, the rate of technological change will only continue to accelerate as more breakthroughs are made (Soffel, 2016). The combined force of these changes will multiply

**The inability of systems of higher education to keep up with industry transformation have widened the income gap between low-skilled and high-skilled workers."**

exponentially, leading many technology experts to claim that we are on the cusp of a "Fourth Industrial Revolution." The World Economic Forum predicts that

widespread socioeconomic change will occur in the near future and will go either one of two ways (Soffel, 2016):

"As technological breakthroughs rapidly shift the frontier between the work tasks performed by humans and those performed by machines and algorithms, global labour markets are undergoing major transformations. These transformations, if managed wisely, could lead to a new age of good work, good jobs and improved quality of life for all, but if managed poorly, pose the risk of widening skills gaps, greater inequality and broader polarization."

America's community







colleges are at the intersection of these competing forces, putting them in a pivotal position with tremendous potential to set a compelling vision and lead America toward a brighter future. With social mobility at the core of their mission, it is time for America's community colleges to step up to the challenge to make good jobs and improved quality of life attainable for all.

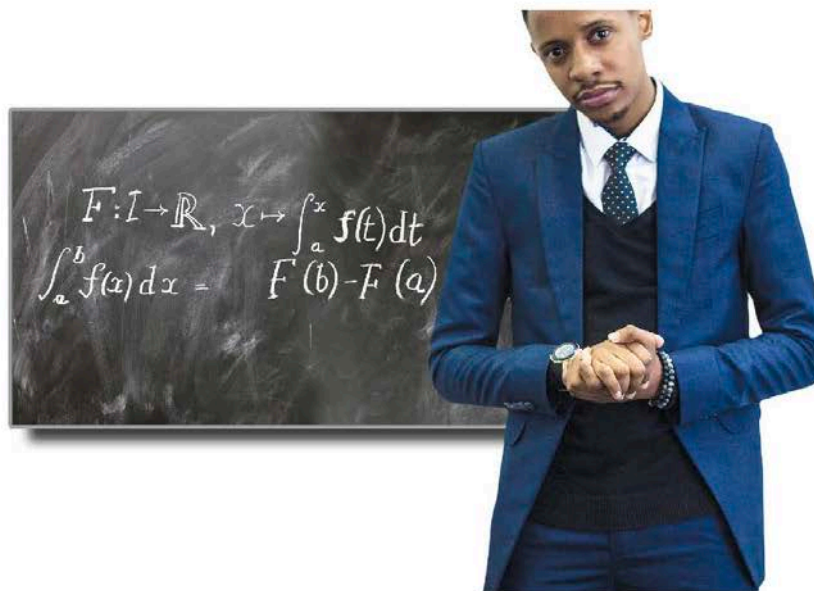
### **Historical Precedents and Dewey's Vocationalism**

The low rate of degree and certificate completion at community colleges has been well documented across many public-facing sources. Community colleges can continue with business as usual or they can be a catalyst for change. If community colleges can seize this moment, they will greatly improve the lives of their students, many of whom are struggling to gain a foothold in the 21st century economy.

This situation is not without historical precedents. In the late 19th and early 20th century, the invention of the automobile, the advent of flight, and increases in understanding electricity combined with other breakthroughs to create an exponential effect on the industrial, economic, and social landscapes of the United States and

broader world. At that time, a debate surrounding the purpose of public education emerged, as well. On the one hand, there was a class of industrialists who believed the purpose of public education was to fulfill the public good. To them, education should produce workers to keep the economic engine of the nation running. On the other hand, there was school of thought led by John Dewey. Dewey also believed that public education should serve the public good; however, Dewey focused on the development not simply of an economically vibrant society but rather that of a truly democratic society. Dewey saw the development of occupational skills as a part of a larger purpose: that of educating students to participate in civic life, which required both literacy and critical thinking. Dewey believed that education should lead students to satisfying and meaningful lives. For Dewey, vocational education meant a philosophy of helping students to find their vocation, or life's work; "occupations as careers rather than mere jobs, employment that provides personal meaning, economic benefits, continued development of the course of a life, social status, and connections to the greater society" (Grubb & Lazerson, 2004, p. 3).

**Education  
should lead  
students to  
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meaningful  
lives.**



## Need for Instructional Focus in Reform Efforts

In order to provide equitable pathways to family-supporting and meaningful jobs, community colleges must dramatically improve student success. Most have recognized this and have been intensively focused on reform efforts. However, these efforts have largely focused on revising advising and wrap-around supports, while little attention has been paid to the academic experience itself (Bailey, Jaggars, & Jenkins, 2015). Yet there is rich evidence indicating that quality instruction and connection with faculty are essential components of student success (Tinto as cited in Barnett, 2011; Liu & Liu, 1999). For nearly a decade, the American Association of Community Colleges has been urging community colleges to take a forward-looking, integrated, and multi-faceted approach that aligns with Dewey's philosophy of holistic education. In 2012, the AACC encouraged those teaching in fields traditionally associated with general education or "transfer" courses to re-envision their disciplinary function and build partnerships across campus and communities, and, on the other side of the house, for those

teaching in occupational programs to recognize that their students are highly susceptible to being made redundant by emerging technologies unless they develop the transferable skills and competencies often associated with liberal arts or transfer programs.

### 21st Century Skills are General Education Outcomes

Clearly, to face and solve today's challenges, students need to draw from a wide range of skills, competencies, and knowledge. This calls for an instructional model that will prepare students for the uncertainties of the future social and labor landscape. The skills students need to successfully navigate the future are complex and interdisciplinary:

The National Research Council's (NRC) 21st century competency framework, the NACE Career Readiness initiative, the O\*NET occupational categorization system, and researchers in labor economics such as the Nobel Laureate James Heckman have all



emphasized the fact that the skills needed to thrive in life, school, and work span a variety of distinct competencies. For instance, the NRC's widely cited taxonomy focuses on cognitive skills, such as technical expertise and critical thinking; interpersonal competencies, including teamwork; and intra-personal aptitudes, such as self-regulated learning. (Hora, 2017)

Furthermore, according to the American Association of Community Colleges (2012), college graduates must be "not just globally competitive, but also globally competent, understanding their roles as citizens and workers in an international context" (p. viii). Soffel (2016) further categorized the needed skills into three categories: foundational literacies, competencies, and character qualities.

Unfortunately, employers are finding recent graduates inadequately prepared with the foundational literacies to meet the written needs of the workplace. Not only are students largely unable to write competently, they are also lacking in rhetorical decision-making abilities. In other words, they choose inappropriate mediums such as texting when dealing with a serious company issue (Carlson, 2017, p. 24). Other types of literacies are also essential. These include numeracy, scientific literacy, ICT (digital information literacy), financial literacy, and cultural and civic consciousness (Soffel, 2016). Beyond these foundational literacies, students need to develop the ability to "do" certain things. These are termed competencies, and the most desired among tomorrow's graduates are critical thinking or problem solving, creativity, communication, and collaboration (Soffel). Current and future employers will be looking for the character qualities of curiosity, initiative, persistence or grit, adaptability, leadership, and social and cultural awareness (Soffel). Furthermore, while there will be a strong demand for graduates with these learning outcomes traditionally associated with a liberal arts curriculum, a truly desirable 21st century skill set goes beyond the dichotomizing notion of STEM or liberal arts; the most sought after and highly paid employees will have skill sets that include hard and soft skills, that integrate general education outcomes with STEM or occupational specific skills (Carlson, 2017, p. 4).



### General Education Outcomes are Discipline-Specific

The call for integrated instruction that crosses disciplinary boundaries is not a call to eliminate disciplinary instruction. Rather, research indicates that students experience higher achievement of general education learning outcomes when those outcomes are contextualized within their field of study. Instead of ignoring or eliminating them, disciplinary conventions and ways of thinking should be clarified early and pointed out repeatedly throughout all levels of the student academic experience. Hoffman Beyer, Gillmore, & Fisher (2007) conducted an extensive, four-year, mixed-methods study concerning general education learning outcomes at the University of Washington. The researchers found that most general education learning outcomes appeared to be highly differentiated according to a student's field of study and that the "disciplines shade, shape, and bind what

students do when they are thinking critically or solving problems" (p.146). The authors concluded that their findings have significant implications for the improvement of student learning. They suggest that, early in their post-secondary careers, students should be made more aware of the

**"Research findings need to be made practical and translated into classroom practice" (Herber, 1967).**

differences between fields in "intellectual values, approaches, and goals" and that faculty should "be explicit in teaching their students how to do the kinds of thinking" required in the field (Hoffman Beyer, Gillmore, & Fisher, p. 197). The authors believed that a heightened awareness of disciplinary differences could help faculty to "better understand their own blindspots" and allow them to

better help students navigate the "intellectual maze" of the institution (Hoffman Beyer, Gillmore, & Fisher, p. 198).

Two areas in which there is relatively widespread understanding of the discipline-specific nature of learning outcomes and the accompanying need for contextualization are in the fields of reading and writing instruction. The concept of disciplinary contextualized reading instruction dates back to the 1960's in the United States with the work of a pioneer in the field of reading instruction, Harold Herber. Herber's work was central to the development of the "reading in the content areas" movement. This movement called for schools to provide professional development and in-service opportunities for collaborative partnerships between reading and disciplinary faculty. Herber advocated that "research findings need to be made practical and translated into classroom practice" (1967, p. 6).

Soffel:

- Foundational Literacies
- Competencies
- Character Qualities

"...college graduates must be not just globally competitive, but also globally competent, understanding their roles as citizens and workers in an international context"

American Association  
of Community  
Colleges



The writing across the curriculum movement also has a lengthy history. According to Russel (1991), discussion and debate surrounding this issue reaches back to the 1870's, when educators began seriously wrestling with "the conflict between pressures to increase specialization of knowledge and of professional work (upholding disciplinary standards) and pressures to integrate more fully an ever-widening number of citizens into intellectually meaningful activity within mass society (promoting social equity)" (p. 23). By the turn of the 20th century, Dewey and his contemporaries sought to bridge this divide, perceiving progressive public education as an opportunity to "weave together the interests of the learner with the structures and activities of the disciplines through increasingly more sophisticated uses of language, balancing in a range of discourse the personal and private experience of the student and the public and impersonal knowledge of the community" (Russel, p. 27).

The work of researchers in the 1960's led to an increased understanding of the need for contextualized writing instruction, and experimental approaches began to crop up. By the mid-1970's, the movement had coalesced into a true WAC movement. By 2012, The National Council of the Teachers of English had published a "Framework for Success in Postsecondary Writing," which laid out desired outcomes for writing curriculum, a list that resembled the listed learning outcomes that employers describe as 21st century skills. These outcomes included the following:

- **Curiosity** - the desire to know more about the world.
- **Openness** - the willingness to consider new ways of being and thinking in the world.
- **Engagement** - a sense of investment and involvement in learning.

Instructors must first learn to see themselves as more than simply conveyors of academic knowledge but rather as facilitators of learning.

- **Creativity** - the ability to use novel approaches for generating, investigating, and representing ideas.
- **Persistence** - the ability to sustain interest in and attention to short- and long-term projects.
- **Responsibility** - the ability to take ownership of one's actions and understand the consequences of those actions for oneself and others.
- **Flexibility** - the ability to adapt to situations, expectations, or demands.
- **Metacognition** - the ability to reflect on one's own thinking as well as on the individual and cultural processes used to structure knowledge (p. 525).

The NCTE framework also described a need to prepare students for “the writing challenges in the full spectrum of academic courses and later in their careers” (p. 526).

While a movement toward contextualized instruction has been well-established since the 1970's and has taken root in many liberal arts colleges and universities, this approach gained only spotty traction in community colleges. In 1987, a survey of members of the American Association of Community and Junior Colleges found that only one-third of respondents reported an active WAC movement (Stout & Magnotto, 1991). Recently, however, understanding of the need for contextualization has been once again gaining ground, in part due to the efforts of organizations such as WestEd and

the University of Texas at Austin's Charles A. Dana Center. WestEd's Reading Apprenticeship Model provides faculty professional development to promote reading and communicative fluency in discipline-specific courses, while the contextualization of mathematics instruction has been widely promoted by the work of the Charles A. Dana Center.

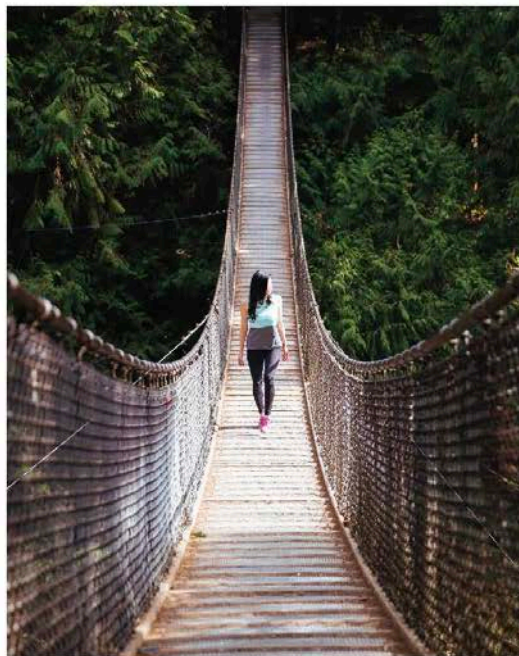
### Effective Instructional Practice

The most effective faculty are those who, like their successful students, continue to invest in themselves, improving their teaching and student learning. They also understand their instructional role as one of *facilitator* of student learning, and they create student-centered, rather than instructor-centered, learning experiences. Whether one creates a teacher-centered or a student-centered environment is not simply a matter of personal style and preference; rather, it is a matter that significantly impacts student achievement. Research shows that the act of granting students more control in their learning, providing them with greater levels of autonomy, improves not only their motivation and engagement but also heightens the achievement of learning outcomes and improves students' ability to transfer their learning to novel situations (Wilengea-Meijer et al., 2011).

Students are best served when learning is focused not simply on short-term learning gains but on their long-term best interests. It is vital that faculty understand that no student's intelligence is fixed and that intellectual capacity can be developed: poor academic performance in students is often the result of under-preparation rather than lack of innate ability. Research shows strong links between socioeconomic background and poor academic achievement and supports the intentional development of growth mindsets to boost student learning and success (Claro, Paunesku, & Dweck, 2016). However, this growth mindset cannot be one held solely by students. It must start with faculty members who fundamentally recognize the growth potential in all students. Faculty can better facilitate the development of learning capacities among students by promoting understanding of the habits that contribute to learning gains, such as focused time on task, and by articulating high expectations for students (Chickering & Gamson, 1987).

Ideal coursework provides surmountable challenges, a concept well illustrated by the success of the Accelerated Learning Program (ALP) movement, which was developed as an alternative to the traditional model of developmental education. Instead of placing students in stand-alone, pre-college level English classes to brush up on basics like paragraph writing and grammar, the creator of ALP, Peter Adams, decided to challenge students by placing them directly into engaging college-level coursework. Adams' model and successful replications of it have repeatedly shown that when developmental students were challenged and appropriately supported, they achieved unprecedented levels of success (Coleman, 2015).

There is also widespread scholarly agreement that certain instructional strategies, known as High Impact Practices [HIPs], are particularly effective in improving student success. Vaz



(2019) described HIPs thus: "They promote active engagement, requiring students to spend considerable time on task. These practices have been widely tested and have shown demonstrable results in improving student engagement and learning outcomes."

HIPs include the following instructional strategies (American Association of Colleges and Universities, 2017):

- First-Year Experiences
- Common Intellectual Experiences
- Learning Communities
- Writing-Intensive Courses
- Collaborative Assignments and Projects
- Undergraduate Research
- Diversity/Global Learning
- Service Learning, Community-Based Learning
- Internships
- Capstone Courses and Projects

Because they are keys in not only preparing students for tomorrow's careers but to leading satisfying, meaningful lives, Vaz (2019) argued



that, in this time of social and environmental challenge, HIPS should play a primary role in today's classroom.

It is now common in the community college landscape to see institutions undertaking large-scale reform efforts aimed at improving student success. Recently, the most widely emulated model has been the Guided Pathways approach put forward by Bailey, Jaggars, and Jenkins in their now canonical 2015 book, *Redesigning America's Community Colleges: A Clearer Path to Student Success*. Bailey, Jaggars, and Jenkins recommend coordinating all areas of the college to create a seamless, integrated learning experience for students. These efforts are laudable, but instructional practice remains an overlooked component of student success. Community college faculty wield enormous influence and potentially transformative power in student lives. Teachers can do much to bolster student confidence, competence, and success by fostering the development of future-facing skills. By putting students at the center of the learning experience, instructors can empower students to attain the future-facing foundational literacies, competencies, and character qualities that they need for long-term participation in the 21st-century economy.

In order to do so, however, instructors must first learn to see themselves as more than simply conveyors of academic knowledge but rather as facilitators of learning. Unfortunately, this role transition is not an easy one to make: it involves relinquishing at least partial control of the learning situation to students, a movement that can create fear for both instructor and students. After all, when students are in control, many things can go wrong. They might behave inappropriately; they might stumble; student learning might stall; students might pose questions that the teacher can't answer; they can become confused; chaos might ensue. And truthfully, each of these scenarios is possible and several are even probable. However, just like students learning new skills, teachers can gain confidence by taking small steps and learning through practice. As they gain experience, teachers





learn to skillfully facilitate engaging and empowering student-centered activities and courses.

Unfortunately, many instructors don't know how to transition into this role or even where to begin, and "most need help finding preexisting assignments and materials that can be adapted to their own students and learning goals" (Bailey, Jaggars, & Jenkins, 2015, p. 108).

Community college faculty are being asked to juggle full-time teaching loads while simultaneously seeking and creating new, engaging, relevant, and challenging learning experiences. There are many organizations and individuals that have risen to fill this need, and this toolkit was conceived of as an addition to a field which many may consider to be sufficiently replete with resources. Yet this toolkit is unique

in several ways. This toolkit was written not to be discipline-specific but rather contextualized across many fields of study. These materials can be adapted to a wide variety of both general education and occupational courses. They are organized around themes that resonate broadly across the lists of desired outcomes developed by economic, workforce, and academic organizations:

- **Critical and Creative Thinking**
- **Communication (Oral, Written, and Digital)**
- **Collaboration and Teamwork**

Additionally, though professionalism and personal accountability are not overtly stated in these themes, I have found that student-centered and collaborative learning experiences are excellent scaffolding devices to promote these outcomes. These methods provide scaffolding to students so they develop the habits of successful community college students and learn to accept responsibility for their learning: for example, when students are given the responsibility to lead their group's reading discussion, they tend to arrive at class prepared. When this behavioral norm is set immediately (while students are also provided appropriate supports to meet these goals), students quickly adjust their behavior to the community norm. Preparation and engagement with the learning material becomes the "thing we do" in this class. Additionally, an essential ingredient for success is that the material is both relevant to students while also being intellectually engaging.

A final chapter, "Learner-Centered Teaching in an Online World," was added to this toolkit due to the rapid and radical transformation that occurred in the educational landscape in 2020 due to the Coronavirus pandemic. Like many others, I suddenly found myself teaching all of my classes in online and hybrid forms and struggling to adapt. Chapter Five includes a discussion and selection of the strategies and activities that worked most effectively to engage students in these circumstances.

I hope this toolkit will play a small part in inspiring and invigorating teachers to better enable today's community college students for success in the challenging world they face. The goal is to provide user-friendly, student-centered tools to help community college students build the skills, concepts, and habits of mind essential for 21st century success.



## Chapter 2: Critical & Creative Thinking

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### Discussion

To develop critical thinking and problem solving, students need to engage in intellectually challenging questions repeatedly, and they need the opportunity to practice, progressing from relatively simple to increasingly complex cognitive tasks.

To help students develop the cognitive grit required to wrestle with complexity, I have created structured theme-based units that open with inquiry about student perspectives on the topic at hand and that allow them to track the progress of their evolving perspective as they delve more deeply into a topic through reading, viewing, and discussing a variety of texts. I was introduced to this approach by the California Acceleration Project, an organization devoted to supporting the acceleration of developmental education and specifically the co-requisite model of English Composition. The California Acceleration Project has a repository of resources to support the use of theme-based learning in English Composition, including a packet of instructor-developed calendars, assignments, and activities for use. The instructional design and chronology of learning activities I have developed here largely follows the California Acceleration Project's Instructional Cycle for Integrated Reading and Writing (Hern, n.d.), which includes these stages:

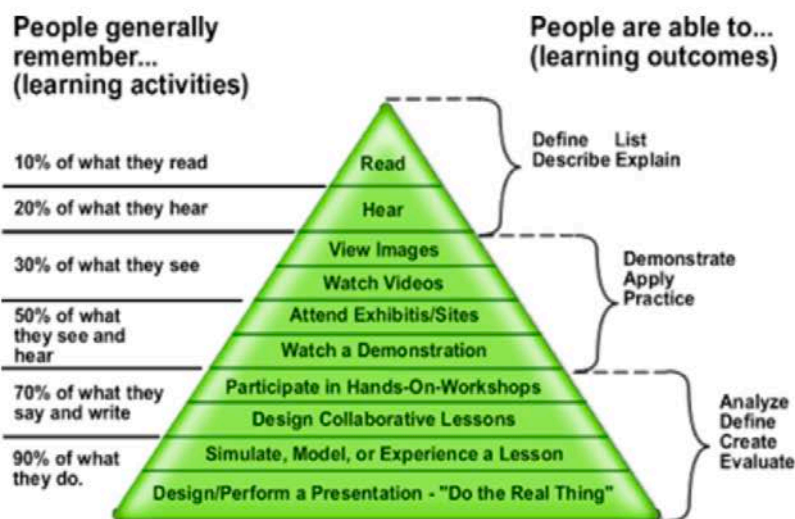
- Pre-Reading Activities
- At-home Reading Activities
- Post-Reading Activities
- Using texts in writing
- Essay Writing Workshops
- Evaluation Process
- Evaluation Follow-Up

While this sequence of activities and these instructional materials were designed for English classes, the concept of theme-based instruction, or units built upon guiding questions, is widely applicable across many disciplines. As students gain practice in interpreting and considering multiple points of view and sources of evidence, they develop their knowledge base while simultaneously developing and practicing the articulation of individual perspectives. To introduce students to the collaborative inquiry, theme-based approach, the following "syllabus addendum" is a useful first required reading assignment. This handout was used for a course based around the guiding question, "What is the relationship between social class and education?" It can be modified to support a course based upon nearly any theme or guiding question.

## Syllabus Addendum

This course is built upon a foundation of research that shows that the more practice students have with reading, discussing, thinking about, and writing about challenging material, the more they **grow** as readers, writers, and thinkers. In other words, this process develops your academic literacy, or the habits and competencies required for success in college, regardless of your field of study. As this happens, your brain physically changes, and this enables you to learn new information more quickly. Each time you engage in these activities, your brain develops neural networks, or circuitry, that holds the new information, and this gives you a stronger base of knowledge to make connections with new information.

This is not a lecture-based course. Some content will be delivered in mini-lecture format, but much of this course is based on the principles of **Active Learning**. In other words, this class has been developed with an understanding of the following principles of learning that were developed by Edgar Dale (1970).



Therefore, in addition to teaching you how to most effectively read academic materials, this class will also give you as much practice as possible in [Receiving/Participating](#) through discussions and structured activities, as well as in [Doing](#), which in this case will be writing and developing presentations.

We will engage in the process of reading, thinking, discussing, presenting, and writing as we work to answer the following question:

### What is the relationship between social class and education?

We will explore a variety of texts as we consider multiple perspectives on this topic. Some of these texts will be articles and essays, while others will be videos, [online](#) discussions, and even personal interviews. As we work through these materials, you will develop a broader understanding of the theme while you are simultaneously deepening your academic literacy, your ability to read and remember challenging material, to articulate a complex perspective, and to make decisions about how to communicate best with your intended audiences in written and multimedia forms.

## ANTICIPATION GUIDE

An activity that has worked very well for introducing a new unit is an anticipation guide. The concept of an anticipation guide was first developed by Herber (1978). According to the State Library of North Carolina's NCPedia (n.d.), an anticipation guide is defined as follows: "A list of true/false statements designed to challenge preconceptions and focus student attention during an assigned reading. A pre-reading strategy useful in any content area." However, not all anticipation guides conform to these parameters; rather, anticipation guides can take many forms. For example, one type of anticipation guide I use is a survey tool that asks students to take a position in response to an opinion statement related to the content of the upcoming reading assignment. Students complete the survey before reading (or exposure to the material in another form) and then once again after the reading. An anticipation guide can also include space for students to take note of the

portions of the text that are relevant to a particular question with accompanying page numbers (thus allowing the guide to serve as a note-taking tool and later a writing aid).

It can also be used as a class activity to survey class opinions, get students engaged in the topic, and to structure class or small group discussions.

One benefit of providing students with a pre-reading activity is that it helps gear up students' brains. It activates their centers of prior knowledge that connect with the content of the reading (the new knowledge), increasing comprehension and recall of the material. When used as a writing aid, the anticipation guide also serves as a bridge tool that helps students connect the reading and writing processes. I used the following Anticipation Guide when introducing my composition students to a unit based on Malcolm Gladwell's book *Outliers: The Story of Success*.

### Anticipation Guide Example

Choose one of the following people or group and list a few reasons why you think they probably achieved success. Then complete the "Before Reading" part of the survey below.

- Wayne Gretsky
- The Beatles
- Bill Gates

Before Reading		Anticipation Guide: <i>Outliers</i> , Chapter 1	After Reading	
Agree	Disagree		Agree	Disagree
		1. Society plays a huge role in determining who will be successful and who won't.		
		2. Hockey players make it to the NHL because they are more talented and work harder than other players.		
		3. The most important ingredients for success are talent and individual effort.		
		4. Kids are chosen for advanced classes because they are more gifted than their peers.		
		5. Your parents' income level is usually an excellent predictor of your future educational achievement.		
		6. Where you come from is usually an excellent predictor of where you will end up.		
		7. A person's birth month has no impact on his or her future success.		

## Anticipation Guide Template

Before Reading		Anticipation Guide: _____	After Reading	
Agree	Disagree		Agree	Disagree



## Speed Dating

If students are given the chance to settle into a passive routine, they are very likely to remain there, especially because it is so familiar to many of them.

Many students are in the habit of sitting in their seats while an instructor passes out knowledge to them and therefore, they are comfortable in this position. On the other hand, if you expect students to engage in challenging active learning in a course, I have found it works well to establish this classroom norm immediately. I don't start the first day by talking about myself for five to ten minutes and then reading the syllabus to the students. Instead, after a very brief introduction of myself and checking attendance, students are up and moving in engaging activities. Students are often very eager to get to know one another at this point in the semester, so this is a great way to help them begin developing relationships with their peers while easing their nervousness. As they grow comfortable interacting, it is easy to transition from these icebreaker activities into group work in which they begin to think about and discuss the content of the course.

Speed-dating is an activity that can be used as an icebreaker during the first day, and it can be returned to repeatedly throughout the semester to engage students in critical thinking related to course content.

Directions: Students make two parallel lines. They are asked to turn and face each other. With the person facing them, they discuss a question for 45 seconds (time can be adjusted according to level of engagement). When time is called, one line of students moves down, while the other line stays in place, thus giving each student a new conversational partner. Students discuss the next question with their new partner until time is called. I do this repeatedly until each student has interacted with every other student (if time permits).

### Speed Dating Icebreaker Questions

- Share one thing about yourself that you think someone couldn't tell by looking at you.
- What is your favorite television show and why.
- Share your five favorite foods.
- Would you make a good boss?

Why?

- Looking at your whole life, what are three activities in which you wish you were spending more time?
- Are you a day person or a night person and how does that affect your life?
- If you could change one thing about yourself, what would it be?
- What would you most like to remember when you are reminiscing about your life in your old age?
- What aspect of your personality adds the most value to the world?
- What is your favorite season?
- If you had your own talk show, who would your first three guests be?
- What do you look for in a friend?
- If you were handed free opera tickets, would you go or sell them? Why?
- What is your favorite restaurant and why?
- What was the most embarrassing thing you have done while on a date or in public?
- It's Saturday morning. What's the first thing you do when you wake up?
- What is the best gift anyone's ever given to you?

## Speed-dating Critical Thinking Questions

(After-reading activity to accompany Wilson, 2016)

### ***Socioeconomic Security and Literacy Achievement***

**1. ...some may argue that social class (SES) is the major factor in educational attainment. On average, SES is also associated with levels of literacy as a direct result of the impact that adequacy and stability of economic wealth can have on families.**

What is the difference between the argument that social class is a factor in educational attainment and the argument that literacy is a factor in educational attainment **as a result of** social class?

2. How does the "adequacy and stability of economic wealth" impact the levels of literacy of children within a home? Can you discuss any personal knowledge that relates to this?

### ***Starting a Business vs. Stable Employment***

**3. ...there is a significant difference between encouraging particularly capable individuals to explore that valuable path, and that course becoming the primary consideration for most workers, especially given that 9 out of 10 startups fail (Griffith, 2014). No, a significant majority of the population needs relatively stable and predictable employment circumstances.**

Why is college a better option than starting a business for most people, according to Wilson? Do you agree or disagree? Why?

### ***Poverty and Health***

**4. On page 14, Wilson shares the following quote, "Poverty not only diminishes a person's life chances, it steals years from one's life" (Reisch cited in Lowrey, 2014).**

What does this mean?

5. Why does poverty have the impacts of a "life of uncertainty," "correlates of poorer health," and "shorter life expectancy"?

6. What personal knowledge can you discuss that agrees or disagrees with Wilson's and the quoted researchers' claims about the relationship between poverty and poor health?



# Think, Pair, Share

Think, pair, share is a structured discussion strategy that allows students to have time for independent thinking, then move into a low-risk discussion setting (partner or small group), and then move into the higher-risk discussion setting of the large group. I have found that using this process frequently establishes universal participation as the community norm. Students show increasing levels of comfort and confidence as they get used to participating in academic discussions.

The following notes reflect the results of a Think/Pair/Share activity conducted in a co-requisite (developmental level) composition course. This activity was used to accompany the reading of an excerpt from "Social class and the hidden curriculum of work" (Anyon, 1980). Students brainstormed and wrote **"hidden" rules they have learned about one aspect of their social identity**. After brainstorming individual lists, students shared these with a partner and created a group list. Each group reported out to the class and a class list was created. **The following list of "hidden rules" was created by students in Michigan's rural and isolated upper peninsula.** The "aha" moments students had about the hidden rules of their social identities **led to meaningful connections to the text and discoveries about the process of socialization in their own lives.**



**Mother**

- Mothers should put their children first.
- Mothers feel lost when their children leave home.
- Mothers are more satisfied by watching their children succeed than by their own career success.
- Mothers are willing to clean up after everyone else.
- Mothers make doctor appointments for their children.
- Mothers read to their children at night.
- Mothers worry about their children.
- Mothers would rather stay home than work.
- Mothers know how to take care of you when you are sick.

**Female**

- A female's place is in the home.
- She isn't capable of taking care of the checkbook.
- She can get a part-time job.
- Women get taken advantage of when dealing with repairmen.

**Men**

- Men go out and work.
- They are in the working class.
- They are rarely home.

**Catholic**

- Catholics are the number one religion.
- A Catholic should marry a Catholic.
- Children should be raised in a Catholic home.
- Catholics are better than everybody else.
- Catholics are racist.
- Children born outside of marriage cannot be baptized.
- Catholics pray every morning and go to confession.
- Babies must be baptized within a certain period of time.

## Post-it Note Activity

The following class activity/assignment was used to help students begin developing connections between readings in a theme-based co-requisite supported English composition class. The questions were part of the stage in the instructional cycle devoted to post-reading activities, with the purpose of in-class group activities defined by Hern as follows, "for students to process, clarify, and engage with ideas from the readings. These practices include structured group discussions, debates, and games, such as "speed-dating" and poster presentations. Focus first on building comprehension, and then move to building analysis" (n.d.).

### Post-it Note Activity (Educational Autobiography)

#### Individual activity:

On a post-it note, write Anyon, then a few key words or phrases that encapsulate the connection you are making with the ideas of Anyon in your essay.

On a separate post-it note, do the same with Gladwell.

Place your Post It notes on the board.

#### Class activity:

Read all the post-it notes and group them together in word clouds with those that have similar themes. A single cloud may include post-it notes for both authors.



## Community Historical Analysis Essay

This essay assignment was part of a theme-based co-requisite composition course based on Malcolm Gladwell's *Outliers: The Story of Success*. This assignment asked students to do first-person research to test out the theories put forward by Gladwell. It also engaged students directly with their community and provided inter-generational connections.

### Outliers in our Community: An Analysis of Local Success

This essay projects asks you to test Malcolm Gladwell's theory of success by applying it to a local individual; you will connect Gladwell's book with local history to see whether the forces of success outlined in *Outliers* apply here in the upper peninsula of Michigan and northwestern Wisconsin.

First, choose a highly success local individual who isn't related to you. This project asks to you consider historic factors at play in this person's life, so they must be 50 years of age or older. This person should have achieved a significant level of recognizable success in the community (president or board member of a local bank or college or community agency, superintendent of schools, successful business owner, etc.). Get this person's permission first, and then conduct a research interview with them. Follow the guidelines for interviewing that are presented in course materials.

This project will also require that you do some additional historic research to help you understand how this person's life was shaped by historical factors. In your paper, you will explore the ways in which the success of this individual can be attributed to more than the conventional ideas of success based on an individual's innate strengths, such as intelligence and talent. Instead, your essay should discuss to what extent this person's success can also be attributed to one or more of the following principles discussed in Gladwell's book. In other words, you will be analyzing what role was played by external or community factors in supporting or shaping this person's success. The most successful essays will discuss several of these

principles:

- The Matthew Effect
- Opportunity
- Culture Legacy
- Upbringing
- Time period or timing

#### How to shape your essay:

- Introduce us to your successful person: Who is this? When and where did they grow up? What was going on in the community at the time? What type of success has this person experienced?
- Your essay should include a thesis that makes a claim about how Gladwell's theory applies to this individual's success. (To what extent do the factors outlined by Gladwell play a role?)
- Then, connect this person's success story with Gladwell's principles. Each time you connect this person's story with Gladwell, be sure to write this as if your audience has not read Gladwell's book. Summaries, paraphrases, and quotes from both the interviewee and Gladwell are necessary. Provide specific examples and detailed explanations about why this person gained success and explain how these illustrate Gladwell's principles. Much of this essay should be devoted to a discussion of Gladwell's ideas as they apply to a real life person.

## Creative Response and Reflection

The Creative Response and Reflection assignment was adapted from an assignment created by Jason Shrontz, Ph.D., a colleague and friend.

When I gave this assignment as the final project in an Upper Peninsula literature course (a class taught in Michigan's upper peninsula), I was astounded by the quality of student work.

Two fine examples include an interactive poem by Matthew Maki and an illustration of a poem by Thomas Lardinois.

## Final Project: Creative Response + Reflection:

For this project, you will respond creatively to one of the texts/issues/themes we've explored in class. You will post your creative response for the class to view and submit a brief reflection/explanation of your project and how it connects to one of the course's larger themes. Your project and presentation are due during our final exam period.

The only limitation to this project is that you cannot respond with an analytical essay. Write a short story or collection of poems. Create a social media profile for your favorite literary character to imagine how she goes through her day. Keep in mind that this project doesn't need to be written at all. In fact, I encourage you to respond in some medium other than the written word. How about a response through painting? Sculpture? Dance? Cooking? Textile? Musical Performance? You decide. If you're concerned about whether your response is suitable for this assignment, speak to me at least a week before it is due.

This project is worth 100 points so it should demonstrate thorough and substantial time, creativity, thought, attention to detail, and professionalism. In other words, impress us!

The audience for the project presentation will include other members of the college community, so be sure that you have created something that you will be proud to show a general audience.

### *Some other ideas:*

- Research cooking practices and meals of UP Native American tribes. Cook several of these dishes. Create a YouTube video that explains the history and shows the preparation of these foods.
- Use a free online character creator to create your favorite characters in the upper peninsula literature we have explored this semester. Develop a multimedia introduction to this character including personality details, educational and professional background, hobbies and interests, and relationship status.
- Create a graphic novel depicting one of the stories or poems we have read.
- Create a meal that would be served in Celie's family's boarding house. Prepare the meal for the class and include details about the foods, their preparation, their origins, and their historic use in the UP.
- Create a quilt with squares that depict different poems we have read.
- Write *North Dixie Highway* fanfiction.
- Write your family's history in the UP, complete with stories told by your relatives.
- Take a weekend road trip and explore the different areas of the UP depicted in the stories and novel we have read. Create a documentary of your experience, complete with readings from the stories in each location.
- Illustrate *North Dixie Highway*.
- Create a website introducing new readers to your favorite U.P. literature.

## Creative Response & Reflection: Student Work

### Interactive Poem

By Matthew Maki

Matthew Maki was inspired by regional poetry and created his own "interactive poem" in which the class could participate by making thematic choices to construct different versions of the poem.

### Poem Titled Upon Final Stanza.

As your eyes spot your reflection, you pause,  
and sieze on the moment to, well, reflect,  
To consider yourself, who you are, and  
where, and why, a moment to introspect.

You are a resident of Upper Michigan, the U.P.,  
quite a beautiful peninsula, she is.  
Dappled with tall trees and grand lakes to see,  
and winters, frigid, cold, and gorgeous.

Please pick whichever keyword speaks more to you. This will determine the next set of stanzas.

Lake  
Town

### Graphic Illustration of Poem

By Tom Lardinois

Tom Lardinois was inspired by Ron Reikki's poem, "Dominos." This is the first page of a longer graphic novel style text.



## Chapter 3: Communication Oral, Written & Digital



# DISCUSSION

Isolated skill instruction does not go far toward facilitating the development of the types of communicative fluency required in each field of study. Each discipline presents a unique context with its own subtleties, or hidden rules, for students. Reading experts have known this since the 1970's and have been calling for literacy instruction to be integrated across the curriculum since that time. In 1982, Nelson-Herber published a comprehensive model to provide professional development for faculty across all disciplines and provided an explanation that still resonates in today's world:

*Corrective and remedial reading classes, while effective for a few students, were not the answer to the problems of a majority of students. These students did not need a recycling of basic reading skills. Instead, they needed instruction in the higher level analytical, critical and creative reading-reasoning process required for comprehension of the increasingly difficult materials of the content areas. All of their students needed the benefit of reading instruction in every classroom where reading was needed in order to be successful. (Nelson-Herber, 1982)*

This understanding of the need for contextualized instruction has been embraced and promoted through on-going efforts of many organizations through which instructors can find resources, support and training, such as WestEd. The Reading Apprenticeship Model by WestEd provides both face-to-face and online courses developed specifically to help disciplinary

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faculty learn to provide contextualized reading instruction. The University of Texas at Austin Charles A. Dana Center provides similar resources and courses to promote the development of integrated and contextualized instruction through Mathematics Pathways. And the California Acceleration Project, with Katie Hern, is an organization devoted to supporting faculty to develop critical thinking learning outcomes in co-requisite composition courses. Several resources in this product were derived from or inspired by the California Acceleration Project and Katie Hern's materials, and the instructional materials presented here also align strongly with Hern's (n.d.) "Instructional Cycle for Reading and Writing," as discussed in Chapter Two of this work.

Many of the higher-level skills described by Nelson-Herber as necessary for reading success overlap with critical thinking, problem solving, and creativity materials that are found in Chapter Two, which is devoted specifically to those

outcomes and are meant to go hand-in-hand with reading, writing, and, discussion assignments. The materials in this section overlap with the development of higher-order thinking skills; however the materials included here place a heavier emphasis on the communication of those ideas and more specifically support the development of oral, written, and digital communicative fluencies.

## EVIDENCE CHART

An Evidence Chart is a tool that helps students to develop stronger reading comprehension and learn to bridge the gap between reading a text and writing about it. When I introduce this tool to students, I explain that learning is strengthened when we make connections between what we are learning and other aspects of our lives, regardless of whether or not these connections are personal, academic, or occupational in nature. The Evidence Chart is a tool for them to record those connections. I also explain that the process of reading a text is a form of being in conversation with the author, and when we are in conversation with someone, we don't always understand or agree with everything the other person is saying. The Evidence Chart is therefore also a tool for participating in the conversation and expressing the reader's side. Finally, I explain that the more complete the Evidence Chart, the easier the process of writing about this text will be later. The Evidence Chart can become a springboard for writing. The areas that most intrigued the reader are most likely to

be the areas that will be most fruitful for writing about. The Evidence Chart will also make the process of writing easier because it will direct the reader/writer back to the correct page number to find quotes of interest, which can then be used in the student's paper as textual evidence.

The following partially completed Evidence Chart demonstrates my modeling of how to use the chart. I participate in a "Think Aloud" process, reading from the book aloud while the Evidence Chart is on the screen. As I read, I vocalize my thoughts, make note of the passage and page number, and write my reaction. Students are prompted to follow along but to make their own notes in the Evidence Chart as I make mine. I then give students time to work further on their charts, and I walk around the room checking in with them and answering questions while they work. I also let them know that they will need their completed Evidence Charts as a tool for class discussion in the following class period.

### Evidence Chart (Modeled Example)

Text (and page numbers)	Me
Verse from Mathew (15)	--a depressing thought
Best of the best hockey players (15)	--how do they become the best of the best? I've seen little ones who can barely walk but they're on skates.
Meritocracy (16)	Merit= being good at something
All over society—school, sports, business, ballet (17)	Meritocracy= a system that rewards merit/being good at something
Individual merit (17)	Any exceptions to this? -stressing the idea of the lone person

Modified from WestEd, Reading Apprenticeship



## Evidence Chart Template

Your Name:

Reading and/or Chapter:

<b>Text (and page numbers)</b>	<b>Me</b>

Modified from WestEd, Reading Apprenticeship

## FRAYER MODEL

The Frayer Model is a graphic thinking organizer to help students develop a robust understanding of a key word or phrase central to understanding a chapter or unit of study (Frayer, Frederick, & Klausmeier, 1969). The unique point of a Frayer model is that it is meant to be worked backward, starting with examples and working counter-clockwise toward the definition of the concept. The definition becomes a “working definition” that is derived from understanding the various components of the word or phrase.

The Frayer Model can be used as a homework activity to accompany reading assignments; however, I have found this tool to be much more powerful when used as a structured group discussion activity. I typically introduce the Frayer Model during the first week of class and use it as a tool to set expectations around behavior norms and communication expectations. We work toward a shared understanding of the phrase “effective communication.” I introduce the activity by explaining that this is a tool that we as a group will use throughout the class in order to make sure we develop shared understanding of terms that are going to be important to our classroom community, so that when one person uses a particular phrase, the rest of us understand it in nearly the same way.

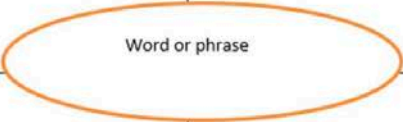
I begin the activity by asking students if anyone can think of an example of effective communication, specifically thinking about what effective communication looks like and how they know it is taking place. If they are stumped, I prompt them further with the question, “How do you know that you are being heard and understood by another person? What does that look like?”

The final step of the Frayer Model is for the class to develop a shared definition. This should not be a dictionary definition but rather a definition that the class builds from the existing examples, non-examples, and characteristics. I provide the framework and the students fill in the blanks. For example, I start by saying, “Effective communication is... what? A style? A form? A type? You tell me the word.” As the students suggest answers, I write their words down, going slowly and checking that everyone agrees as the definition develops. At this time, I am also modeling the composing process, showing them that writing can be a slow and halting process, one that involves continuous writing, erasing, and rewriting. This activity usually takes up about ½ hour of class time, which can seem like a lot of time during the first week of class, when there are many things to cover. However, I have found it sets a tone of collective engagement immediately. Students learn that they will be expected to participate fully in the class and they will be heard and respected.

### Frayer Model (Modeled Example)

<p><b>Definition:</b> a simple definition of the concept</p> <p>Effective communication is a form of information exchange when two or more people develop a shared understanding of a concept, idea, emotion, situation, or topic. It involves the sender expressing oneself in a manner that is appropriate to a situation and the receiver checking for understanding. When effective communication occurs, people become more engaged and connected with each other...</p>	<p><b>Characteristics:</b> words or phrases that further explain the meaning of the word</p> <ul style="list-style-type: none"> <li>Safe</li> <li>Kind</li> <li>Shared understanding</li> <li>Thinking occurs</li> <li>People feel connected</li> <li>Engaging and interesting</li> <li>Emotional intelligence required</li> <li>Perspective outside of self</li> </ul>
<p>Word or phrase: Effective Communication</p>	
<p><b>Examples:</b> examples of the concept in action</p> <ul style="list-style-type: none"> <li>eye contact</li> <li>nodding</li> <li>listening without interruption</li> <li>thoughtful language</li> <li>paying attention</li> <li>verbal feedback</li> <li>questions that show you follow and want to know more</li> </ul>	<p><b>Non-Examples:</b> examples of the opposite of the concept</p> <ul style="list-style-type: none"> <li>Looking at phone while someone is talking</li> <li>Interrupting</li> <li>Using language that offends or makes defensive</li> <li>Only trying to prove a point, not trying to understand</li> <li>Talking for too long until they lose interest</li> <li>Using inappropriate media such as texting to communicate a problem</li> <li>Feeling unsafe to speak up</li> </ul>

## Frayer Model Template

<b>Definition:</b> a simple definition of the concept	<b>Characteristics:</b> words or phrases that further explain the meaning of the word
 Word or phrase	
<b>Examples:</b> examples of the concept in action	<b>Non-Examples:</b> examples of the opposite of the concept

## Open Book Quiz

When part of an integrated reading and writing process, the purpose of the reading quiz goes far beyond a simple check to see that students are reading. The *open* book quiz becomes an especially useful tool to prompt students to use writing as a thinking activity and to enter into the pre-writing stage of the composing process. To emphasize this function of the reading quiz, the questions should prompt students to demonstrate both comprehension of the key ideas of a text as well as critical engagement. Hern further described the use of the open book quiz:

Students move from informal and largely oral discussion to explaining key ideas/info from reading in their own writing. Provides incentive and accountability for completing and reviewing readings. Good quiz questions require students to demonstrate they understand key parts of text (poorly written questions allow students to locate and copy or simply provide opinion). (Hern, 2016)

The quiz also allows the instructor to gauge learner progress, enter into a dialogue with each student to redirect as necessary, and promote further development. The following quiz, student work, and feedback example demonstrate the use of an open book quiz to accompany Harro's "The Cycle of Socialization" (2000).

### Open Book Quiz Example & Student Work

In "The Cycle of Socialization," Harro describes "agents" and "targets" (2000). Who are agents and targets and what are the characteristics of each group? What examples of agents and targets can you think of from your own life experience? To what extent does Harro believe it is possible to break the cycle and how? To what extent do you agree or disagree with her, and why?

#### **Student Response (Spring 2014)**

In the "cycle of socialization" targets are identified as groups of people who are part of a negative stereotype. Agents are the group of people who view the targets negative stereotypes. Unfortunately this is how are society is. Agents are also held at a higher value than targets in our society's perspective. It is a sad truth that there is discrimination so prevalent amongst us. Targets could include gays, lower class, African Americans, Jews, and even faddish dressers.<sup>1</sup> It is possible to break the cycle by standing up against society and protesting its norms and beliefs.<sup>2</sup>

I see this very common in our local area. People are very discriminatory and judgmental. I have encountered and had to live with this way of thinking all throughout high school. I believe it is good to be a democratic nation even though I am a republican. Our country was founded on democracy. We have come a long way in the past one hundred years but we need to come a lot farther. Some issues we need to stand firm on but as far as assigning people as targets and agents, we have a lot of work to do. In this country an African American should not be assumed to be a thug with no hope of earning an honest living.<sup>3</sup>

#### **Instructor Marginal comments:**

1. Yes, good summary.
2. How does Harro think we can be most successful?
3. I'm a bit lost here. How does this connect with Harro's point? To what extent are you agreeing or disagreeing with her, in terms of our ability to break the cycle?

## THE RESEARCH INTERVIEW

This project can be adapted to fit nearly any program of study. I have used it as a part of a theme-based unit as a means of bringing in unique perspectives to the on-going conversation.

While this activity is often engaging and informative for students, this assignment really shines in the way that it provides students a “real-life” opportunity to practice their developing audience awareness and communication skills. The following discussion details the use of this project for the specific purpose of one theme-based course, yet the assignment and supporting materials could be useful in a wide variety of contexts.

This research interview assignment is the **first part of a larger group Public Service Announcement (PSA) assignment**, as described in Chapter Four of this resource. It is also similar to a research interview that was the first step of the “Community Historical Analysis Essay” described in Chapter Two. I have found success in adapting this assignment for multiple purposes. I introduce the overall PSA project first and then the Research Interview itself. I have found an excellent video tutorial to support teaching research interview skills, [How to do a research interview](#) developed by Graham R Gibbs (2013). After students have viewed the video, I introduce them to the following assignment and guide.

### The Research Interview Assignment

Each group member will interview at least one person to find out about the influences of social class and education in their life. Your group’s interviews should represent a diversity of education and social class backgrounds. All interviewed persons must be twenty-five years or older and may not be a member of any group member’s immediate family.



## The Research Interview: A How-to Guide for Students

1. Arrange a place and time to meet. This area should be a place where the interviewee will feel comfortable, and it should be quiet and private enough to allow for in-depth conversation.
2. Prepare a list of approximately **7 to 10 open-ended questions**. Think about what your interview is designed to uncover, and think of questions that will help you get the information you need. In this case, you will want to design your questions to find out about this person's life story and educational path. For example, you might ask questions about role models or opportunities or what types of education the person has received and how it impacted them personally. It is up to you to craft your questions in a way that will get the person talking about the information you are looking for.
3. While a list of 7-10 base questions is important, you should also be prepared to **ask follow up and clarifying questions** to make connections between ideas, get the person to elaborate, and make sure you understand clearly. These questions should occur rather spontaneously throughout the interview, interspersed throughout your prepared, initial questions.
4. When going to the interview, bring your prepared questions, a notepad and writing utensil, and a recording device (such as a smartphone that will allow you to record much, if not all, of the interview).
5. Make sure to follow the 10 criteria of a good interviewer as explained in the **How to Do a Research Interview** video (Gibbs, 2013). Explain the purpose of the interview. Make it clear that the interviewee may choose not to answer some of your questions. Also, ask the interviewee for permission to record the interview and for permission to use his or her identity. If you would like to include a recorded clip in your PSA, ask the person's permission to do so. You may even invite the person to be on video in your PSA.
6. As you proceed with the interview, be sure to take notes, but **don't try to capture each and every word spoken**. Just **take notes** using **key words** to help you remember what was said. Later, you should listen to the interview recording and take more notes. When you are creating your PSA, you will need the exact words if using direct quotes, and you will use the recording to ensure you quote the person with 100% accuracy.
7. Another reason it is important try to write only key words is that writing too much will distract you and the interviewee from the process of the interview. This will limit your ability to establish a good dialogue. You want to **maintain eye contact**, as much as possible, and use other nonverbal signals, such as nodding, to ensure the person feels comfortable and respected.
8. At the close of the interview, be sure to **thank the person** for their time and offer to share the results of your research (your PSA) with the person, once it is finished.

### Research Interview Report

Write a one-two page report (typed, double spaced, MLA format) summarizing the interview and describing the most interesting, surprising, or significant findings to come out of it.

The report should include the first name of the person interviewed (last name also if the person agrees to have identity shared), and the date, time, and place where the interview took place.

**Upload the assignment before class on \_\_\_\_\_. Groups will be reviewing one another's research and begin integrating it into the group presentation.**

## Adobe Spark Presentations

There are multiple free online presentation software tools that are available to teachers and students. I have used many of these tools often to liven up mini-lessons and classroom activities. However, when asking students to create presentations, the best design tool I have found, one that has been transformational in the way it engages students, is a free product from Adobe (2019) called Adobe Spark. Adobe Spark is unique in that it is intuitive and easy to learn while allowing students to create engaging multimedia projects that include audio components. Adobe Spark includes a repository of free resources that students can draw from, including Adobe licensed images and music, and the tool imports the appropriate citations for Adobe provided content. It also enables voice recording and has user-friendly editing tools.

I introduce this tool early in the semester so it can be returned to repeatedly throughout the course for smaller formative assignments as well as for higher-stakes assessments at the end of a unit or course. Students become genuinely engaged in manipulating the software to the best effect, and once they become familiar with this tool, they report using it for other academic and personal projects. The following collection of Adobe Spark project assignments represents a diversity of uses, both formative and summative, for a variety of classes.

### *Adobe Spark Curiosity Reports*

Throughout the semester, you will use [Adobe Spark](#) to create five 2-minute videos that present and pursue an idea from the class that made you curious. Presentations must include explication of class material, connections to other texts, research, pop culture artifacts, or lived experience, and your observations or insights. Presentations should conclude with an open-ended question for discussion.

One way to go about creating a successful Curiosity Report is to use the TQE method developed by educator Marisa Thompson and described in *The Cult of Pedagogy* blog (Gonzalez, 2018).

·With the TQE method, you dive deeper into the content of a text by sharing your "thoughts, questions, and epiphanies" about the text. Using this approach, you would share some of the thoughts (which might be your ways of connecting this text to others), questions (lingering questions that you are interested in discussing), and epiphanies (a major insight or "aha" moment).

Be sure to refer to the author by last name, and include relevant quotes and page numbers.

By \_\_\_\_\_, create your presentation and post it. When sharing your link, create a new discussion topic with an appropriate title, and share your link in the body of the message.

By \_\_\_\_\_, post at least two responses to presentations in the discussion board and to other students' discussion posts.

### *Examples of Student Projects*

- [The Alcoholism of the Metzger Family](#) by Matthew Maki (n.d.)
- [Revenge](#) by Thomas Lardinois (n.d.)

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### *Pre-Writing, Advertising Analysis*

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Create an Adobe Spark Presentation of approximately 2-3 minutes in length. Show the ad or ads that you are planning to analyze for your essay. Include your tentative thesis and the main points you will make. Your presentation should provide evidence for each point that you make. The evidence will come from specific elements of the ad (angles, colors, text, etc., and how those develop particular appeals). You may also support your interpretation with descriptions of social constructions of identity and cultural references.

Your presentation should show that you have put a lot of thought into the assignment. It should be scripted and well-rehearsed. You should also cite your sources.

---

### *Learning Outcomes Self-Assessment & Reflection*

---

Using Adobe Spark, develop an audio/visual presentation that is approximately 2 minutes long.

Provide a link to your presentation in the LMS by \_\_\_\_\_. The audience for this presentation will include other members of college community, so be sure that you have created something that you will be proud to show a general audience.

Your presentation should	
Tell the story of your learning and growth in an engaging manner.	10
Provide specific details about how you achieved 2-3 course outcomes.	15
Audio:	10
• Provide a clearly audible narrative (your audience should be able to hear and follow your speaking).	
• Should demonstrate scripting and rehearsing (professionalism).	
Be visually appealing.	5
Be concise and well organized.	5
Provide discussion of connection of achievement of learning outcomes with your personal, academic, and/or professional future.	5
total	50



## Chapter 4: Collaboration & Teamwork

[Discussion](#)

[Reading Groups](#)

[Buzz Groups](#)

[Café Conversations](#)

[Public Service  
Announcement & Peer  
Review](#)

[Collaborative Research  
Groups](#)

[Home](#)



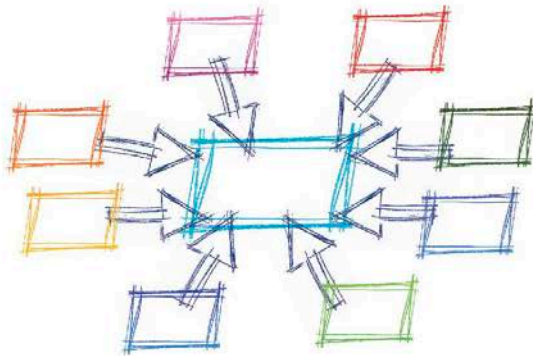
## DISCUSSION

The National Association of Colleges and Employers (NACE) has defined the desired 21st century learning outcome for collaboration and teamwork as follows:

“Build collaborative relationships with colleagues and customers representing diverse cultures, races, ages, genders, religions, lifestyles, and viewpoints. The individual is able to work within a team structure and can negotiate and manage conflict” (2018).

The lens through which I view instruction related to the collaboration and teamwork outcome is the same lens through which I view all of my instructional efforts: that of content literacy. To achieve content literacy is to acquire the habits of practitioners in a field, or, more specifically, “the ability to use reading, writing, talking, listening, and viewing to learn subject matter in a given discipline” (Vacca & Vacca, 2005, p. 7). As a biology major, for example, a student must learn the specialized vocabulary of biologists, their fieldwork techniques, their research protocols, and their processes of documentation. She also must learn their unspoken rules of engagement: how they work together in teams, how they conduct themselves in professional conferences, and how they gain respect in their field. If all goes well, when she graduates with a biology degree, she reads, writes, listens, speaks, and collaborates like a biologist. The graduate has become an insider in the field. She is a biologist.

Though many educators fail to recognize it, the



collaborative habits of practitioners within a given field and even those of successful college students are foreign cultural practices to many students, especially at community colleges. Many of our students come to us as academic outsiders. For many, underrepresentation in terms of socioeconomic status compounds the outsider standing. Yet our students are expected to begin communicating and collaborating with the insiders immediately, though they have never been given so much as an outsider/insider translation guide.

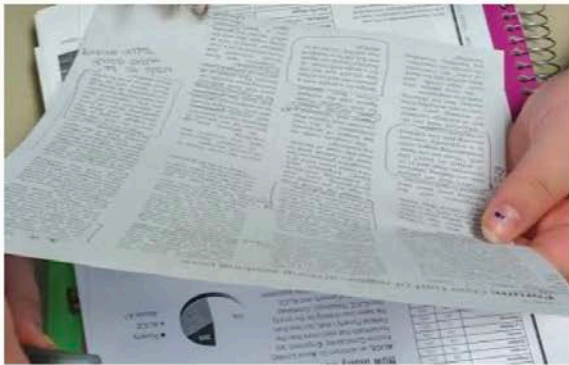
When planning a course, I ask myself these questions: What concepts are most fundamental to understanding this course? What skills must students grasp to achieve fluency as participating members of the community? What do students need to know to become insiders?

I support students by modeling effective listening and speaking practices and giving them opportunities to practice collaborating with one another in low-stakes activities and then gradually increasing the stakes (in terms of both audience exposure and evaluation). In class discussions, group work, peer review, and conferences, we work together, sharing successes, problems, and questions to “figure things out.” They begin to exercise thoughtful decision making and exhibit increasingly effective collaborative behaviors that empower individual and group success. By the end of the semester, the goal is for students to become academic insiders, well-equipped for engaging with ideas and people in the college and their fields of study.

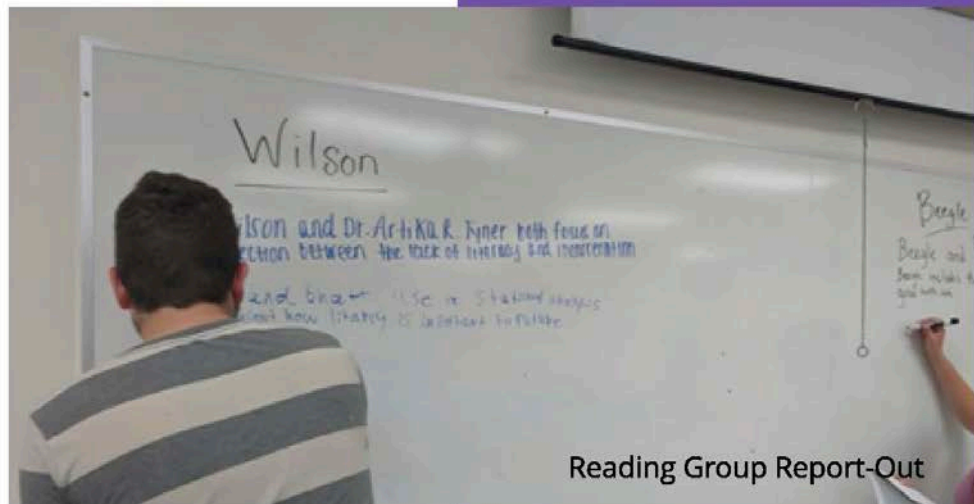
**Principle:**  
**When we engage students in content literacy strategies, we support them in developing their capacities for higher-level learning.**

## Reading Groups

The use of **reading groups** is a strategy I adopted from the **California Acceleration Project** (an organization discussed more fully in Chapter Two of this work). The use of reading groups fits into the Instructional Cycle for Integrated Reading and Writing (also discussed in Chapter Two), encompassing and providing structure for students as they engaged in the first three stages of the cycle: pre-reading activities, at-home reading activities, and post-reading activities. While reading groups are used to help students develop reading and writing fluency, they also provide strong support for the development of collaboration skills and interdependence. The self-assignment of due dates is also a strategy that help students learn how to manage their academic workload by breaking down larger assignments into manageable chunks. I combine the use of reading groups with many structured discussion activities that often require collaborative investigation and a report-out to the class.



Student Preparation for Reading Group



Reading Group Report-Out

# Reading Groups Assignment Sheet

For your reading assignments, you will be responsible for creating the assignments you and your group members will work on each day. As a group, you will be deciding which pages your group will read and discuss each day and assigning jobs to group members. As an individual, you will complete one of the following jobs each day. You should rotate jobs so you are not doing the same job every day.

**Summarizer:** Your job is to summarize the reading for your group, in writing. Your summary should focus on the important parts of that section. Aim for about a two to three paragraph summary. You will start off the reading group meeting by reading this summary to your group.

**Golden Line Finder:** Your job is to find important passages in the section you are reading. You should highlight these passages and make notes in the margins that discuss their importance. Aim for 3 important passages per reading assignment. Share each "Golden Line" with the group and have the group member share thoughts about it.

**Translator:** Your job is to identify areas in the text that might be confusing and to clarify these areas. You should create a document for your group that clearly identifies where to find the passage in the text and a brief, clear translation of the confusing passage. Your job as translator may also include identifying unfamiliar words and defining them for the group. Aim for 2-3 passages for each reading assignment. Have group members share their own interpretations and discuss how their interpretations may or may not differ from yours.

**Discussion Director:** Your job is to write a list of questions that your group should discuss about this section. The best questions will come from your own thoughts, feelings, and ideas about this reading and will make connections between the text and the outside world (television, advertising, Facebook, sports, life in general, etc.). You should aim for about 3-5 strong, open-ended discussion questions.

Each day, you should complete your job. Please date the daily assignment and clearly note the pages you read and the job you were completing. Each day, I will check your assignment for completion, and you will turn in all the written assignments in your final draft folder.

At the end of each reading/essay unit, we will hold "Reading Group Evaluations." At that time, your group will evaluate you on your performance in the reading group using a rubric to give you a score in four categories. Each member will have the chance to rate you without other members seeing the score assigned. Your final grade for group work will be an average of all your scores. The categories in which you will be scored are the following:

- **Group Work Ethic:** 5 points= Was always prepared.
- **Contribution to Project:**10 points= Worked to fulfill daily job. Input was valuable, accurate, and useful. Critical thinking and creativity were expressed.
- **Cooperation:** 5 points= Helped group stay organized. Worked very well with others and assisted when needed.
- **Attendance:** 5 points= Was on time and attended all sessions. Was always mentally present in discussions without being distracted.

## Reading Group Assignment Management Sheet Example

### *Reading Group Assignment Sheet (MWF Class)*

**Reading Assignment:**

**Hard Deadline:**

**Mon:**

Reading Assignment: \_\_\_\_\_

Discussion Director: \_\_\_\_\_

Golden Line Finder: \_\_\_\_\_

Summarizer: \_\_\_\_\_

Translator: \_\_\_\_\_

**Wed**

Reading Assignment: \_\_\_\_\_

Discussion Director: \_\_\_\_\_

Golden Line Finder: \_\_\_\_\_

Summarizer: \_\_\_\_\_

Translator: \_\_\_\_\_

**Fri**

Reading Assignment: \_\_\_\_\_

Discussion Director: \_\_\_\_\_

Golden Line Finder: \_\_\_\_\_

Summarizer: \_\_\_\_\_

Translator: \_\_\_\_\_



## BUZZ GROUPS

To generate collaborative and active learning, introduce **buzz groups**, a strategy described by Brookfield and Preskill (2005). Buzz groups are short conversations that students have in small teams of 3-4 people. Each group is asked to discuss, generate consensus, and report-out its answer to a probing question.

To promote student critical engagement in lectures, an instructor might break the lecture up into digestible chunks of approximately ten minutes each, with each chunk ending with a “buzz group” prompt. Students are given three to four minutes to converse and then each group is responsible for a brief report-out. The instructor can record group responses on the board or electronically; it is important that student responses are noted in some way and made visible to all. This demonstrates recognition and

value for student thinking, and it also gives the instructor the opportunity to monitor and respond to emerging themes or misconceptions. It can also reinforce learning and promote student note-taking.

A small selection of suggested questions from Brookfield and Preskill (2005) follows, but any number of open-ended questions could be used:

- What’s the most important point that’s been made in lecture so far?
- What question would you most like to have answered regarding the topic of lecture today?
- Of all the ideas and points you’ve heard so far today, what is the most obscure or ambiguous to you? (p. 47)

## CAFE CONVERSATIONS

I was introduced to the Café Conversation strategy in 2009, when I was fortunate enough to take part in a series of faculty professional development workshops guided by The Collaborative for Teaching and Learning. It has since become **the single-most useful strategy** I have used in teaching, one which I have watched students grow familiar and adept with using. The tool is described in further detail by Cunningham (2009):

Café Conversation, a collaborative discussion strategy, adapted from the Café Technology concept, engages participants in open dialogue about those ideas and questions that are critical to discuss at any given point in time. Where Café Technology relies on the group to determine the content and structure of the work, Café Conversation provides much more scaffolding, sometimes necessary for students who are unaccustomed to managing their own dialogue.

Café Conversation questions are usually related to specific course content but focused on large concepts and ideas, rather than discrete facts. When first using Café Conversations, teachers should determine the topics and guiding questions. As students become more adept at managing their own dialogue, they may also be relied upon to develop topics and guiding questions.

Café Conversations can be used to structure group discussions about nearly any topic, but for classroom use, I have found they are most engaging and supportive of deep learning when used to guide discussion of a shared reading or other form of text. However, a necessary feature of the text is that it must present concepts of sufficient complexity that they require intellectual struggle to make sense of. This activity can also be useful to remind students to return to the text to check understanding and seek evidence for their interpretations. In this way, Café Conversation may also be used as a generative pre-writing activity.

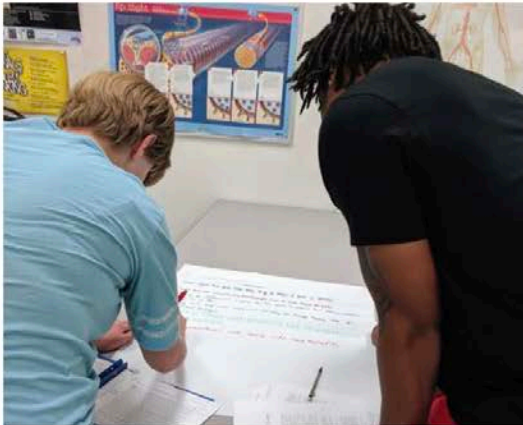
I developed the following Café Conversation questions to guide students through a discussion of the TedTalk "Hip-Hop and Skakespeare," given by Akala (2011). Akala's talk involves concepts that connect language use and forms of power. This discussion was part of a larger thematic course guided by the question, "What is the relationship between social class and education?" The students had been reading and discussing texts related to this topic, so they already had much to draw upon and connect with when they encountered Akala's speech.



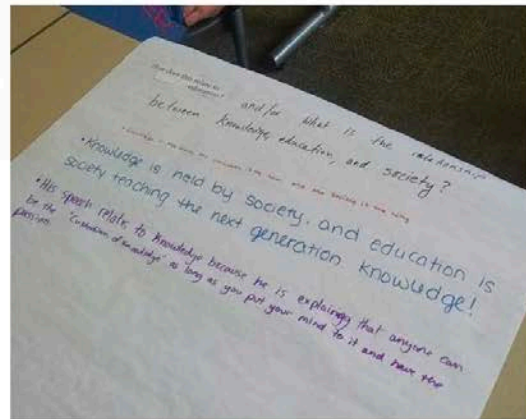
## Café Conversations Activity Example

### *Café Conversation to accompany Akala (2011)*

- Explain what you think Akala is saying about the relationship between hip-hop, Shakespeare, and power.
- How does Akala's speech relate to education?
- What does Akala mean by the phrase "Custodian of Knowledge"? Provide a few names of people you believe are examples of this.
- A quote and an inference: Pick out at least one statement by Akala that you find particularly interesting or insightful. Explain what you think Akala means by the statement or why it is so insightful.
- Write an open-ended question related to Akala's speech. An open-ended question has no single correct answer but offers the chance to explore ideas more deeply.
  - Choose one open-ended question to answer, or provide a few bullet points or add more to the discussion of a question that has already been answered.



Students collaborate in Café Conversation related to a class reading



Student answers to Akala (2011) questions



## Public Service Announcement

The Public Service Announcement Assignment (PSA) is one I have used in both composition and communication courses, and this project could be easily adapted across a wide array of other disciplines and levels. This project allows students to develop teamwork and project management skills while engaging in a task that allows them to be creative and inject humor into their work. The project promotes deeper knowledge and thinking about their topic and strengthens their ability to make informed decisions about communication choices as they are forced to examine and cater to the needs of their audience.

The following PSA assignment sheet was designed as part of a theme-based composition course in which we examined the question, "What is the relationship between education and social class?"

To promote the habits of revision (and to see improvement in the quality of student work), I began incorporating a Peer Review requirement into the PSA project. Students were asked to have their first draft of the presentation due approximately a week ahead of the final deadline. This gave students an interim deadline to work toward. While the PSA draft is not graded for quality at this interim deadline, it provides both an accountability measure to keep groups on track and an opportunity to receive formative feedback while engaged in the process of production. It also allows students to get a sneak-peak at what other groups are working on, a glimpse that becomes highly motivational for any groups that may be experiencing procrastination issues.



## Public Service Announcement Assignment Sheet

A **Public Service Announcement (PSA)** is a type of advertisement featured on a billboard, the Internet, TV, or other media. PSAs serve different purposes. Some may simply be informative, to notify the public of an issue, and some are persuasive, asking someone to take action.

For this project, create a PSA to educate people about our guiding question for this course: this should be a presentation that articulates a message about the relationship between education and social class (this is your thesis). Your PSA should make us understand why this information is important. It should also demonstrate audience awareness and be directed at a general, public audience.

Each group member will interview at least one person to find out about the influences of social class and education in their life. Your group's interviewees should represent a diversity of educational achievement and socioeconomic status.

Bring your findings together to find a common theme to focus upon and a thesis, a point to make about your theme. In your presentation, discuss how each person's story illustrates this point. For example, perhaps the women and men had different experiences that are reflective of their gender. The point may be that women had different setbacks than the men you studied, or vice versa. Or perhaps those interviewed by your group broke all stereotypes about social class, thus illustrating that a person can overcome barriers. Other possibilities include the influence of family on one's goals, the influence of neighborhood on school attendance or quality, etc. There are many possible themes that might emerge when you analyze your interview findings.

- Create a presentation that articulates your message
- Incorporate information from research interviews (each member must conduct at least 1 interview).
- Length: Approximately 3-5 minutes.
- Record your PSA using Adobe Spark software or another engaging platform.

Your PSA will be evaluated according to the following rubric.	Your points	Possible points
Presents unique, critical, and reflective insights about social class and education (shows critical thinking)		10*2
Accurately and ethically synthesizes research, including MLA citations and Works Cited		10
Presents concepts in an engaging manner		
1. Attention to audience and purpose made apparent (Why should we care? What do you want the audience to do? Have you provided enough information for understanding?)		10
2. Creative and appropriate use of graphics, text, and audio		10*2
3. Scripting, revision, and rehearsing apparent ( <b>exhibits professionalism</b> )		10
Includes written text that demonstrates careful attention to <u>precision and editing</u>		10
Your group's evaluation of your participation		10*2
total		100

## Public Service Announcement: Peer Review

PSA Group Members: - \_\_\_\_\_

Reviewer Names: \_\_\_\_\_

- How does this PSA answer the question, "What is the relationship between education and social class?" In other words, what is the thesis of the PSA? If you can't find one, suggest a good thesis that would connect the material covered in the PSA.
- What is the most interesting idea in the presentation?
- What do you like about this PSA? Be specific, and provide at least one or two good points.
- What would you like to know more about? Write at least one or two questions for the group to answer in the finished PSA.
- What could make this PSA stronger? Provide at least one or two suggestions, and explain your suggestions clearly.
- On a scale of 1-10, with 10 being highest, how would you rate this PSA in its current form?



## COLLABORATIVE RESEARCH GROUPS

The following assignment sequence was designed to leverage group collaboration as a feedback and support mechanism as students pursue individual research projects. The activities accompany *The Bedford Researcher, 3rd ed.* (Palmquist, 2010); however, the assignment sequence and activities can be adapted to stand alone or to accompany a variety of traditional and Open Educational Resources. This assignment sequence works best when students are assigned to groups with similar research topics. When groups are formed in this way, groups truly become resources for their members because group members share related findings and materials.

### **Activity 1: Create a Plan to Explore my Topic**

- Create a Plan to Explore your topic (Page 21 in book);
- Answer the questions in your research log.
- Then, find out more about your topic by completing **either** of the following actions:

#### **Option A:** choose a person to interview

1. Choose at least one person from your list of people you can consult (question 1 of page 21 activity).
2. Conduct a casual interview with your list of questions to find out what they know about the topic. Take notes!

#### **Option B:** choose a setting to observe.

1. Go to the setting. Watch and listen.
2. Write down your observations and what conclusions you can draw from them.

### **Activity 2: Report and Discuss my Findings**

- Write a memo to your group using the questions on page 29 “Explore Your Topic” activity as a guide and the memo example as a guide. As shown in the example memo, your memo should address your group and “provide the details of the findings” from Activity 1.
- Organize your memo so that your group can clearly understand the steps you took and what you found from the sources, as well as overall conclusions you can draw from this research. Also include how this will impact the next steps of your project.
- Have your memo ready for the next class period.

#### **In-class Group Work:**

- Pass your memo to the left.
- Write a response to the memo you have received.
  - What do you find surprising or interesting from their findings? What other resources do you know of that the person can consult? What information or ideas do you have about this topic?
- When complete, pass the memo along to the next person and repeat.

### **Activity 3: Find and Review Print Sources**

- Find and review a variety of print sources (based on the discussion beginning on page 22 of your book).
- Complete as many of the following actions as possible. Take notes on your findings. Be sure to record

## COLLABORATIVE RESEARCH GROUPS, CONT

your citation information in your research log so you can return to it later.

- Search library catalogues, library shelves, public agencies, schools, etc. to find at **least two different types of print sources** related to your topic. These can be magazines, books, newspapers, or brochures.

### **Activity 4: Find and Review Web Sources (outside of college databases)**

- Skim a Wikipedia article on your topic and look at the list of references. Choose at least one reference listed and find that source.
- Consult a web directory (explained on page 25) regarding your topic. Browse articles and take notes.
- Find a wiki or discussion forum on your topic, such as Reddit (explained on page 25). Skim through the content and discussions. Take notes.

### **Activity 5: Report and Discuss my Findings**

- Write a memo to your group using the [memo example](#) from the Grand Valley State University Writing Center as a guide (Barakat, 2009). As shown in the example memo, your memo should address your group and “provide the details of the findings” from Activities 3 and 4.
- Organize your memo so that your group can clearly understand the steps you took and what you found from the sources, as well as overall conclusions you can draw from this research. Also include how this will impact the next steps of your project.
- Have your memo ready for the **next class period**.

### **In-class Group Work:**

- Pass your memo to the left.
- Write a response to the memo you have received.
  - What do you find surprising or interesting from their findings? Is there anything you found in your research that connects with, is similar to, or contradicts the findings? What new information or ideas do you have about this topic?
- When complete, pass the memo along to the next person and repeat.



## COLLABORATIVE RESEARCH GROUPS, CONT

### **Activity 6: Narrowing my Topic**

**Step 1:** pages 30-32: Explanation and Tutorial (31):

How can I identify conversations in my sources?

- Read the description under “Step 1:” on page 30 and continuing onto page 32.
- Choose three of your sources, and complete the following chart (adapted from the chart found in your book on page 31):

Source (last name of author)			
Broad Themes			
Disagreements			
Key Voices			

**Step 2:** After completing this chart, share the chart with your group and discuss the “conversations you have identified.” Compare your findings with your group members and use each other’s suggestions to support and add to your research.

### **Activity 7: Report and Discuss my findings**

- Create a final memo to your group in which you report on this activity and answer the questions found on page 34 activity: “Narrow Your Topic to an Issue.”

## Chapter 5: Learner- Centered Teaching in an Online World

### Discussion

### Building Community

[The Name Game](#)

[Etiquette](#)

[Break-out Groups](#)

[Interactive Tools](#)

### Vocational Wellness

[Home](#)



## Discussion

The materials presented in this toolkit were developed in a pre-pandemic world, primarily for face-to-face learning situations. As of this writing in January 2021, COVID-19 is still a very real threat in our midst, preventing most forms of face-to-face instruction from taking place in secondary and post-secondary institutions world-wide, with some exceptions. Typical forms of instruction currently being used vary between hybrid formats that allow some students inside classrooms for part of their learning and fully online versions of courses. Courses which require students to have specialized equipment and access to labs have been hardest hit, while courses that were operating in online environments prior to the pandemic have experienced little change. One thing is certain: the pandemic has forced many institutions, teachers, and students to participate in an extended experiment with online learning. The results are not yet conclusive, but this migration to online platforms will certainly have a lasting impact on educational models. Many teachers are likely to have discovered models and methods that have been useful and effective. I am no exception.



One instructional model that many are using currently is that of the online meeting using Zoom, Google Meets, or other videoconferencing tools. As a teacher conducting classes daily using these technologies, I have found that most of the strategies and methods presented in this toolkit require significant modification to be effective in this context. While a few strategies lend themselves readily to this space (notably, the Adobe Spark Curiosity Report discussed in Chapter Two continues to excite and inspire students), others have fallen somewhat flat. Therefore, instead of continuing to rely on this established playbook of strategies, I have experimented with new approaches and tools to maximize engagement and learner success.

## BUILDING COMMUNITY

**D**uring the Coronavirus pandemic, I have taught what my institution is referring to as hybrid class meetings, in which half of my students are with me in the physical classroom, and the other half are engaging in the class using Zoom videoconferencing software. This configuration presents many obstacles that make learner-centered teaching especially challenging. Dynamic engagement among students is difficult to establish and maintain, especially with the online students, whose attention can be caught by multiple distractions in the home environment.

Making it even more challenging, students

typically do not have their cameras turned on and opt to respond to discussion questions in the chat. For some students, this is necessity due to low Internet bandwidth, but these behaviors very quickly establish themselves as the group behavioral norm. This situation requires teachers to become 21st century skill role models as they problem solve and adapt to this new learning situation.

Just like in a typical face to face classroom, I have found that it is best to establish norms for student engagement in the first class meeting. One activity that works well for this is the name game.



# The Name Game

Explain to students that you care about getting to know them by name but that you need help learning and remembering the names of so many students. This game will help you and everyone in the class to learn others' names because it employs two techniques that help us to learn new material: a mnemonic device and repetition. Each person should come up with an adjective that starts with the same letter as their name. The teacher will start and then call on the next person (usually starting at the top left corner of the Zoom meeting screen). Each person will introduce all others that came before them using their adjective and name, and then introducing themselves. After all students have taken a turn, the teacher is then challenged to go again, this time stating every student's adjective and name.

Before starting the game, I give students several minutes to think of an adjective and write it down. I also ask students to let us know if they are having trouble thinking of an adjective. In each class, I usually have two to three students who are stumped. I then ask the rest of the class to help them by brainstorming suggestions that the student could use. This provides an excellent opportunity to establish the behavioral norms of active engagement and peer collaboration. I

explain that we can't start the game until each student has an adjective and states that they are ready. Otherwise, if students are stuck trying to come up with an adjective in the middle of the game, the game will go very slowly and people will lose interest. Once we start the game, when people do find they are having trouble remembering all adjectives and names, I don't volunteer to help them right away but allow for students to begin speaking up to help them. This may require a bit of gentle prompting because students may be unsure whether or not they are allowed to help in this game. Once the game gets going, the group typically develops a rhythm. I sometimes need help remembering everyone's name, so I pause and wait for students to help me when needed. This establishes another important norm for learner-centered teaching: the teacher does not have all the answers.



## Etiquette

In a face-to-face classroom, I have used the [Fray Model](#) to frame a discussion in which the group establishes its set of “effective communication” expectations for the class. This discussion tool did not provide optimal results in the hybrid classroom situation. Additionally, students have difficulty brainstorming effective communication norms in this situation due to a variety of factors, one being the possibility that they may not have experienced an online learning situation that compelled them to be engaged, so they have no experience to draw from. It has been more effective in this situation to simply provide a short list of expectations to help them understand how to engage appropriately in the online learning community.

- Unmute and speak your answers if possible and comfortable.
- Class members keep an eye on chat. Let me know when questions or issues arise.
- If someone enters late and I am presenting something, please provide that person with needed links to activities so that I don't need to stop talking and disrupt the entire class.
- When you need to step away, please let us know by posting in chat. Let us know when you return.



## BREAK-OUT GROUPS

Many instructors have experimented with various versions of break-out, or discussion, groups in online classes. I have also tried many versions, with varying levels of success. The following is a list of strategies I have found to be effective:

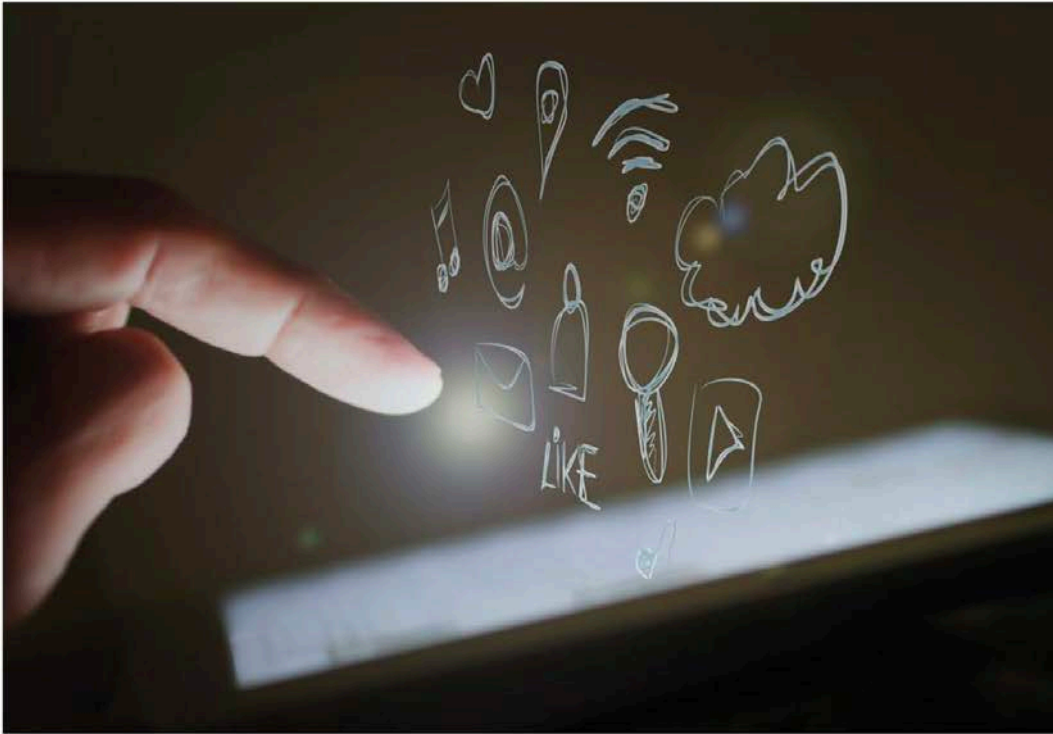
- Build a solid foundation of active engagement and collaboration **before** implementing break-out groups (this may take a few days or weeks to build, depending on the dynamic of the class).
- Teach students inclusive discussion strategies, such as pausing to wait for others to collect their thoughts.
- Give students explicit instructions for what they will need to accomplish during break-out groups.
- Include an expectation that a member from each group will report out on their task or accomplishment to the larger group.
- Assign groups manually, interspersing the more vocal students throughout the groups.
- Pop into each group throughout the activity. When arriving in the group, ask students how things are going and if they are encountering any problems or confusion.
- Do not include break-out groups in each class. Use a variety of methods and tools to engage students.

# Interactive Tools

One key to facilitating student learning in virtual class meetings is to implement a variety of methods for engagement. Nearpod and Peardeck are two add-on extensions for Google Slides that have been particularly useful. Both applications are available for download in the Google Play Store, and both have free and paid versions. I use the free versions of both, and between the two, I am able to vary instructional activities. Both of these tools work seamlessly with Google Slides. Once a lesson has been created, the instructor simply needs to launch the lesson and provide students the log in information. Students are able to participate in the activities from their home devices. Both of these tools offer synchronous and asynchronous options so they work for self-paced online classes and for those that meet regularly. However, Nearpod and Peardeck extensions do not integrate with one another, so it is best to use only one tool per synchronous class period to avoid asking students to log in to multiple applications.

**Nearpod** is the tool I rely on most. It allows the teacher to engage students in both group and individual activities. The following are my most frequently used Nearpod tools.

- **Collaborate Board:** This tool allows the instructor to post a discussion question. Students create responses that appear on the screen in post-it note forms. Students can simply provide a text answer or they can incorporate an image into their response. Settings allow teachers to approve each answer before it appears to the class or to allow free posting. Teachers may also choose to show or hide student names.
- **Draw It:** This tool allows students to draw a response. Drawing tools include the choice of different colored pens and line thickness, text boxes, and image search. The teacher may then share out each drawing with the class and ask the student artist to provide further explanation or comment.
- **Matching Pairs:** This tool asks students to match words or phrases with their explanation or definition. Students work on this activity individually. The teacher dashboard shows each student's number of attempts to arrive at the correct combinations, allowing immediate formative assessment to take place.
- **Poll:** This tool allows the teacher to embed a poll directly into a slideshow with optional sharing of results. This polling feature can be used to give students options for class activities and to conduct quick knowledge checks in the midst of class.
- **Time to Climb:** This is an animated quiz game that allows students to race to the top of a mountain. Teachers create questions that incorporate text, images, or a combination of both. Students are awarded points based upon how quickly they get the correct answer.



## PEARDECK

Peardeck's free version provides fewer options than Nearpod; there are only three interactive tools available. However, its interface is simple and easy to navigate, allowing one to build activities into a slideshow very quickly.

- **Text:** This is an open-ended response tool. Teachers may choose to share their screen and thus allow the class to see all responses. This tool does not show student names. One aspect that makes this tool particularly engaging is that the teacher can view students constructing their responses in real-time while sharing the screen. Students can respond actively, erasing and adding to their responses, creating rapport-building through interactive and often witty dialogue.
- **Choice:** This is another polling tool. Peardeck's version allows teachers to give students the option to select multiple answers.
- **Number:** This tool limits student response options to numbers, therefore allowing students to rank activities or self-evaluate on a numerical scale. The teacher can view the responses individually or aggregate them for formative assessment purposes.

# Vocational Wellness

I developed this vocational wellness unit for a class with a focus on developing communication skills for the workplace, a course with a target audience of twelfth grade students who plan to pursue vocational programs or go directly into the workforce. I adapted this from a similar unit I created for community college students in the Accelerated Learning Program. While career exploration is often left to the purview of student service professionals, incorporating these concepts into coursework is an excellent way to contextualize learning by making it relevant to students in their earliest stages of college or as they are nearing the end of secondary education.

The concept of vocational wellness harkens back to John Dewey's philosophy that people's occupations are a primary means of finding satisfaction and meaning in life. Vocational wellness is about finding the appropriate vocational fit: meaning, a niche where a person's values and interests intersect with their strengths or skills. The following is a discussion of the steps I use to guide students through the process of assessing themselves to develop an individualized conception of personal vocational fit. As we work through the stages of this unit, I ask students to keep detailed notes as they will be presenting their findings in two Vocational Wellness reports.

## Step One: Values Clarification

As we move through this unit, students develop an understanding of values as those things that are important to their personal happiness and well-being. Students often consider careers based on only a few factors, such as earnings potential and amount of schooling required, or a conception of a career being hands-on versus office-based. It is important to help students to develop a more fully detailed, vivid picture of the type of life they hope to live because there are many other factors in a chosen career that will affect their life satisfaction.

One activity to help them begin to define their values is a "Would You Rather" Poll. Examples of questions to get them thinking about values and career fit include the following:

Would you rather...

- Have a typical Monday-Friday, 8-5 workweek, or work nontraditional hours that include evening and weekends?
- Travel for your career or be at home every night?
- Earn a comfortable living or earn a higher income than the average person?
- Stay in the area or move away?

- Spend more time working with a team or working alone?
- Be physically active while at work or spend a lot of time at a desk and/or computer?
- Dress in a professional manner/uniform or wear heavy-duty or protective work clothing?
- Have a highly demanding and highly rewarding career or have a lot of free time (for example, to attend children's band concerts and sporting events)?
- Be expected to check emails and take phone calls when you are away from work or leave your work behind you at the end of the day?

Other values exploration activities include values clarification worksheets in which students are asked to select their most important values from a list and rank those values. Many examples of these types of lists can be found online by googling "values clarification list." I selected one from [thebalancecareers.com](http://thebalancecareers.com) and created an interactive slide using the [Peardeck](#) add-on for Google Slides.



## Step Two: Inventory Strengths & Skills

In this stage, students are asked to identify their academic, occupational, and personal strengths through a guided journaling activity. After asking each question, I give students several minutes to jot down their thoughts on their answers. If time permits, students can be placed into break-out groups to share their answers with one another.

### Journal Questions

- Which are your strongest academic areas?
- What skills do you use in your personal hobbies, recreation, and/or job?
- What are your personal strengths?
- Which of these are your biggest talents?

## Step Three: Identify Interest Areas

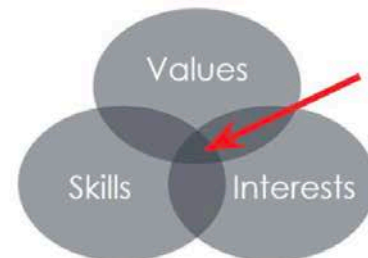
The U.S. Department of Labor, Employment and Training Administration, has created a helpful online "O-NET Interest Profiler." This tool presents students with a list of sixty activities and asks them to indicate their level of like or dislike for the activity. The inventory aggregates their answers to identify each person's top three interest areas. Students are then asked to identify the level of preparation and training they are interested in pursuing by selecting a preferred "job zone." After completing this, students are given a list of careers that match their interests and job zone. Each career listing is linked to a page that includes details about the career, occupational outlook, and earnings potential.

Students are asked to keep records of the following:

- #1-3 interest areas
- job zone preference
- three careers they found intriguing

After completing these activities, students are ready to begin building their reports. The following are assignments sheets for both presentations.

### Vocational Wellness



## Adobe Spark Vocational Wellness Report Assignment 1

You will use an online software called Adobe Spark to create a multimedia report.

This is about you. Introduce yourself, your background, family, where you are from, or anything else you think is relevant. Then include each of the following:

- Your occupational values
- Your interests
- Your skills
- Your "job zone" goal

Vocational Wellness Presentation Rubric	Points Possible
Includes introduction of self	1
Includes five occupational values	5
Includes 4-6 skills/strengths	5
Includes 3 Interest Areas (as indicated on O-Net Interest Inventory)	3
Includes discussion of intended preparation/job zone	1
Audio/Visual Visually appealing, visuals appropriately reflect themes/content Speaking is clearly audible, concise, and demonstrates professionalism (rehearsed)	5
Considers the needs of audience by presenting ideas in a way that is easy to follow and understand	5
<b>total</b>	<b>25</b>





## Adobe Spark Vocational Wellness Report Assignment 2

This is a more in depth look at three careers and their potential as a fit for you.

Introduce yourself briefly.

Introduce the three careers you looked into.

Then, for each career, include the following formation:

- What type of education/training is needed?
- What would a typical day on the job look like?
- What is the broad occupational field this belongs to?
- What is the job outlook for this occupation and field?
- What are the opportunities for growth and advancement?
- What is the average salary nationally and local to the area you intend to live?  
How does this compare with the average household income?
- Why would this be a good fit for you based on your values and interest?  
Which values and interests does this career connect with?
- What aspects of the job are not a match for your values and interests?
- Why would this be a good fit for you based on your skills? Which skills does this career connect with?
- What of your skills does it not take advantage of?
- After considering all three careers, which is the best match for your values, interests, and skills? Will you pursue this career path? Why or why not?

Vocational Wellness Presentation Rubric	Points Possible
Includes introduction of self with brief intro of skills, values, & interests	10
Discusses three occupations in sufficient detail for audience to understand important details about the career.	15
Described thoughtful decision making process about career fit with skills, values, & interests	5
Audio/Visual Visually appealing, visuals appropriately reflect themes/content Speaking is clearly audible, concise, and demonstrates professionalism (rehearsed)	10
Considers the needs of audience by presenting ideas in a way that is easy to follow and understand	10
<b>total</b>	<b>50</b>

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## ABOUT THE AUTHOR

Nicole Ellet-Petersen has taught English in university, community college, and high school settings for two decades. She has been most inspired by the growth she has witnessed when community college students are empowered by engaging, challenging learning activities that promote 21st century learning outcomes in student-centered classrooms.

## A Toolkit for 21st Century Teaching & Learning:

by Nicole Ellet-Petersen

## CHAPTER FIVE: CONCLUSION

### INTRODUCTION

Having spent more than a decade teaching in community colleges and nearly two decades of teaching in the higher education community more broadly, I perceived a disconnect between liberal arts faculty and occupational or trades faculty. At each institution, these groups appeared to be working to achieve different goals: the liberal arts faculty to prepare students for transfer and engaged citizenry and the occupational faculty to prepare students for the demands of particular jobs. Contributing further to this disconnect, the student services and administrative groups pursued other goals that often appeared to be at odds with the goals of instructors: the student services staff to retain students by engaging them in college life and the administration to achieve fiscal stability. This toolkit grew out of the researcher's firsthand experience and research. This research maintains that 21<sup>st</sup> century learning is the common goal that underpins the mission of the community college and highlights the key role that faculty play in preparing students for the future and in driving student engagement and retention.

Across the community college and higher educational landscape, initiatives abound. Organizations and community college administrators continuously embark on reform efforts to improve student success. One example comes from Achieving the Dream's Institutional Capacity Assessment metric, which gauges the student-centered culture of an institution in the following seven areas:



- data and technology
- equity
- teaching and learning
- strategy and planning
- policies and practices
- leadership and vision
- engagement and communication (Achieving the Dream, 2020)

In the Institutional Capacity Assessment metric, all categories are weighted equally, signifying that teaching and learning, the key functions of the college, have not been prioritized.

Another example can be found in the long-standing federally funded TRiO grants, which provide substantial financial support for colleges to institute a number of wrap-around supports for students, such as academic advising, tutoring, and counseling services. Whilst these interventions have been created with the best of intentions, the key service that community colleges provide, the role of learning, fails to occupy a central or even major focus in these efforts. Additionally, these efforts are internally focused, examining the way that colleges propel students into and through the higher education pipeline. The emphasis is on the number of credits and degrees attained. There is little discussion or examination of the quality of instruction or the relevancy of the curriculum for students' future career and life success.

The American Association of Community Colleges and other externally facing organizations have been calling for community colleges to heighten their consideration of the long-term career and life needs of students and redesign their curriculums around 21<sup>st</sup> century learning goals. Some recent movements to emphasize relevant, high-quality instruction in

reform efforts have garnered attention and traction. For example, Complete College America (n.d.) recently developed a list of research-supported strategies to improve student completion rates. These include methods for building momentum toward degree attainment, ensuring students can get on the “correct path” early, and ensuring students have the supports intended to keep them on track. Two strategies relate directly to curricular redesign, mathematics pathways and co-requisite support. Both the UT Dana Center and the California Acceleration Program have also addressed curricular redesign, and these institutions have forwarded research into these areas and provided teaching materials and professional development for instructors specifically in the areas of Mathematics and English Composition. Whilst the UT Dana Center is beginning to have broader national reach, the California Acceleration Project is strongly influencing primarily California’s community colleges. The work of the UT Dana Center is also particularly notable because it is both internally and externally facing, considering the applicability of general education mathematics outcomes for the needs of students specific to their future profession. However, both the work of the UT Dana Center and the California Acceleration Project is discipline-specific, geared toward faculty in the fields of mathematics and English composition, with neither project offering materials intended for a broader faculty audience.

## **LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH**

This dissertation was created with the intent to help bridge the divide between reformers, teachers, and employers, to integrate occupational and academic goals, and to provide teachers with materials to engage students with relevant and empowering instruction.

The product of this dissertation, *A Toolkit for 21st Century Teaching and Learning*, provides an overview of the competencies in demand by today and tomorrow's labor market, which are also those needed by students to navigate increasingly complex socioeconomic and environmental challenges. The product also describes research-based recommendations for effective teaching practice and offers instructional materials for direct application in community college classrooms.

The learning materials in this product have not been vetted through formal research. They were designed based upon principles of learner-centered teaching, an approach which research has shown to be effective. In Weimer's extensive review of research regarding faculty-orientations to teacher, teacher-focused approaches were compared to student-centered approaches that require students to actively construct knowledge (2013). Teacher-focused approaches were described as based upon an information transmission approach and were positively associated with surface or non-deep learning for students (Trigwell, as cited in Weimer, 2013). On the other hand, teachers who spent more time focused on what their students were doing and learning, those who encouraged self-directed learning, had students who were more "less likely to adopt a surface approach and more likely to adopt a deep approach" (Trigwell, as cited in Weimer, p. 33).

Weimer's review also included a discussion of contextualized, or discipline-based, learner-centered approaches. Most of these studies focused on student learning in the sciences. In one study of note, a "peer-led team learning" model was implemented in a general chemistry course. 100 students in an experimental group participated in two fifty-minute lectures and one fifty-minute peer-led session, while the control group of 190 students

participate in three fifty-minute lectures. All students took the same four exams and final. Students who had been exposed to the peer-led approach achieved higher means on every exam. Additionally, when students in the experimental group were surveyed upon the conclusion of the course, given the choice to enroll for the upcoming semester in either traditional and peer-led methods for the following semester, 85% of students said they would opt for the peer-led method (Lewis and Lewis, 2005, as cited in Weimer, 2013). Furthermore, a more robust study that included 713 students found that even unstructured group collaboration resulted in students arriving at more effective strategies for problem-solving than students who had not worked in groups. The study concluded that, in the collaboration group, “most students improved by a factor of about 10 percent, including many of the students who had previously settled on ineffective strategies” (Cooper, Cox, Nammouz, & Case, 2008, as cited in Weimer, 2013, p. 47).

Whilst the learning materials in this toolkit have not been vetted through formal research, they are the results of an informal iterative process of continuous improvement. Learning outcome assessments, attendance records, class grades, course evaluations, and student retention records collected by this researcher for personal and institutional purposes showed heightened student success in courses in which these activities and materials were implemented, including in more formalized records kept for grant-reporting purposes. Furthermore, no formal research was conducted to ascertain which materials were more effective than others or the significance of these materials versus other factors that may have contributed to heightened student success. For example, curricular reforms such as a co-requisite instructional model were implemented simultaneously with many of these activities,

the influence of which cannot be overlooked. Furthermore, these materials were used at a rural, community college with small class sizes. Thus, the number of students affected would not have been significant for a quantitative study. Additionally, the potential effects of class size, cultural and geographic contexts, and student demographics should not be overlooked. More direct assessment of learning outcomes is needed, as well as research related to the impacts of these activities for student engagement, motivation, and retention.

There is also a demonstrable need for research regarding teacher and administrative experience relating to academic and occupational integration through contextualized instruction. The resources in this toolkit are practitioner focused, meant to assist teachers to engage in small-scale efforts to improve student learning and academic success in the context of their classrooms. However, this toolkit provides only a “stepping off” point into the broader conversation surrounding curricular relevance, instructional practice, and institutional strategy.

The toolkit may serve to compel discussion and bridge connections between academic and occupational faculty and departments, but without institutional commitment and support from administrators, these alignments and practices will have spotty and relatively minor impact on students’ overall academic experiences. As noted in Chapter 2 of this dissertation, in the 1990s, a trend toward academic and occupational integration emerged in community colleges. Unfortunately, this movement was not sustained, stalling out by the early 2000s. Parr, Edwards, and Leising (2008) found that the integration efforts that had been initiated demanded a significant commitment of time and effort from the teachers involved. The authors believed that the small monetary compensation that their study offered teachers, while not sufficient to cover the actual hours they spent in this work, at least provided motivation for

teachers to persist in the study. The authors surmised that monetary incentives would be necessary to compensate teachers for undertaking similarly intensive projects. They suggested that further research is needed regarding teachers' perceptions of their challenges and needs for administrative support.

Young (2006) provided further confirmation of the need for investigation into the experience of teachers involved in the process of contextualization. Young described the extensive professional development conducted with teachers involved in this process and their development of "communities of practice" through repeated collaboration in professional development days. Young suggested a need for further research into the potential of CTE instructor communities of practice to "create vibrant and effective schools where the quality of student learning is exemplary" (p. 113).

Weimer provided an overview of research into the effects of learner-centered teaching on student learning, citing multiple studies and literature reviews which confirmed that student-centered approaches contributed to knowledge retention, deep and transformative learning, higher levels of motivation, and increased academic performance (Prince, 2004, Hale and Mullen, 2009, & Trigwell, 2010, as cited in Weimer, 2013). However, most of these studies were conducted in traditional university settings and not tested in community college settings, in which students tend to be less academically prepared and at higher risk due to socioeconomic factors. Furthermore, there is a need for research regarding the connection between the student experience of learner-centered teaching with retention and graduation rates and subsequent career and life outcomes.

## NEXT STEPS

This toolkit should be used in combination with other reforms that place student learning at their center. Bailey, Jenkins, and Jaggars (2015) encouraged colleges to undertake comprehensive reform to build a coherent pathway for students at every step of their college journey and to offer instructional experiences that include “spending less time covering specific pieces of knowledge in order to spend more time building concepts, skills, and habits of mind” (p. 97). According to Bailey, Jaggars, and Jenkins, the approach to instruction should be that of learning facilitation.

Unfortunately, the dilemma that community colleges face is still the question of how to move the needle on instruction from a college experience in which students may experience isolated courses with a relevant and learner-centered approach to experiencing this approach college-wide. Bailey, Jenkins, and Jaggars suggested that peer-based faculty development in the form of the faculty inquiry model is a strategy that shows promise. The faculty inquiry model approach sees teaching as an “adaptive challenge,” one which constantly changes shape, presenting new and unique problems that require improvisation, experimentation, and investigation. Peer-based inquiry groups engage in a process to “reframe problems and generate their own solutions” (Bailey, Jenkins, & Jaggars, 2015, p. 106). Peer-based inquiry groups can be developed around particular learning goals or themes, such as critical or creative thinking, or they can be developed around courses, grouping teachers who teach the same class. To build a truly cohesive academic experience, these groups might take the form of cross-disciplinary teams. Peer-based inquiry groups can also help instructors to view issues like student resistance or lack of motivation as challenges that can be addressed through research

and problem-solving rather than viewing these issues as “personal failures” (Bailey, Jenkins, & Jaggars, p. 108). These groups also provide instructors with an array of preexisting learning activities and options due to heightened sharing and pooling of resources. Additionally, faculty inquiry groups provide emotional and logistical support to teachers as they continuously grow and improve in their ability to facilitate student learning. The resources provided in this product dissertation were meant to align with the process of faculty inquiry and to add to and complement instructor-created pools of materials.

## **SUMMARY**

*A Toolkit for 21st Century Teaching and Learning* was designed to focus on the goal that is at the heart of community college work: student learning. It was created to provide teachers with a primer on today’s relevant learning outcomes and to bridge the perceptual divide between academically and occupationally focused instructional priorities. This toolkit was created with the hope that it will propel community college teachers to create engaging and empowering learning activities that prepare community college students to successfully meet the challenges of the 21<sup>st</sup> century world.



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