theRPgroup

Research • Planning • Professional Development
for California Community Colleges

ACE 21ST CENTURY PROFESSIONAL SKILLS

Insights from a Longitudinal Evaluation of the Academy for College Excellence

Rogéair Purnell-Mack, PhD, and Diane Rodriquez-Kiino, PhD

July 2018

Project Overview

In 2015, the Research and Planning Group for California Community Colleges (RP Group) was funded by the Joyce Foundation to assess the long-term impact of the Academy for College Excellence (ACE) on select students who participated in the program between fall 2003 and spring 2014.

To accomplish this goal, the RP Group designed and implemented a mixed-methods research study to analyze the perceived effect of ACE on students' lives both personally and professionally. The final evaluation report can be accessed here.

Introduction

This brief draws on mixed-methods research, highlighting the ways in which the Academy for College Excellence (ACE) facilitates the capacity of vulnerable populations to thrive as students, professionals in the workplace, and community members. As a complement to a fall 2017 brief (Rassen, Purnell-Mack, & Nguyen, 2017), the focus of this document is on **how the personal success skills (PSS)[1] evident in the ACE curriculum strengthen fundamental 21st Century professional skills, which we are defining using the research by the New World of Work (NWoW)** (Schultz & Gill, 2014).[2]

The NWOW research lists identified 10 prominent skills for 21st Century workplace achievement: Adaptability, Analysis/Solution Mindset, Collaboration, Communication, Digital Fluency, Entrepreneurial Mindset, Empathy, Resilience, Self-Awareness, and Social Diversity Awareness (see Table 1 for NWoW definitional

---

[1] 'Personal success skills' is a label that the Joyce Foundation uses to describe soft and technical skills associated with professional growth and success.
[2] Located at Feather River College, NWoW is funded by the California Community College Chancellor's Office and is charged with arriving at and defining top 21st Century employability skills. Through a series of skills panels to examine current and future workforce trends, educators, students, and employers identified ten 21st Century skills.

elements adapted from Schultz & Gill, 2014). The purpose of this brief is to demonstrate how these professional traits are emerging throughout the ACE curriculum and how the students talk about them.

Table 1. New World of Work Skills

21st Century Skill	Definitional Elements[3]
Adaptability	Be prepared to tolerate and adapt to transformational and inevitable work environment and career changes
Analysis/Solution Mindset	Sort through data and multiple factors—human and emotional—to solve problems and identify appropriate solutions to arrive at valuable conclusions
Collaboration	Bring value and skills to teams including employing empathy by seeing the partners' points of view and needs to successfully realize shared goals
Communication	Understand the nuances of face-to-face and group communication through digital technology (e.g., email, video conferencing, texting, blogging, social media) including verbal, non-verbal, and written communication rules and etiquette
Digital Fluency	Be adept at using digital technology as a medium to upgrade skills and knowledge, as a platform for professional self-marketing, and as a means to find work and project partners
Empathy	Establish trusting, non-competitive relationships with and compassion for a variety of potential team members to support risk-taking tolerance and resilience in the face of failure; understand needs and challenges of customers
Entrepreneurial Mindset	Cultivate actively a strong professional network, new skills, and clear individual brand on professional social media to tap into available opportunities
Resilience	Possess a growth mindset and risk-averse attitude that encourages innovation, creativity, and revisioning in face of failure
Self-Awareness	Understand transferable skills, strengths, values, and propensities in order to be prepared to pivot in response to technological advances
Social/Diversity Awareness	Be comfortable with short, stint projects with a variety of teams comprised of members from varying socioeconomic, generational, cultural, and national backgrounds, while being aware of cultural customs to communicate effectively and create a nurturing and productive team environment

---

[3] These elements are extrapolated from the 21st Century Skills definitions, as outlined by Schultz & Gill (2014).

The ACE Program

Through both noncognitive and experiential learning-based instruction, the ACE program **teaches students to understand themselves**—their purpose, their will, their goals, and the obstacles that might stand in their way. Further, the program **boosts students' self-worth, inviting them to see themselves as principal contributors** to family and community (see Asera & Navarro, 2013; Karandjeff & Cooper, 2013; Navarro, 2009; Nguyen et al., 2018). A previous program evaluation of 679 students conducted by RTI International found that some of the affective or noncognitive curricular methods used by ACE lead to statistically significant changes to mindfulness, communication, self-efficacy, college identity and other psychological constructs (Farr, Rotermund, Radwin, Robles, & Choy, 2014). In 2016, the RP Group set out to understand these salient shifts in mindset and behaviors/habits through telephone interviews.

Methodology

Over 400 participant perceptions[4] were collected during the telephone interviews with those who completed ACE between 2003 and 2014 at either Cabrillo College, Berkeley City College, or Hartnell College and provided the chief source of evidence for the current brief. Specifically, these interviews explored how the **non-cognitive and affective ACE skills influenced participants' employability and competitiveness** in the workplace. The interviews also delved into respondents' emotional well-being, community ties, and capacity to develop and realize life goals. Overall, the majority of participants (90%) agreed or strongly agreed that **learned affective traits in ACE had a positive influence on their work lives**. Table 2 below offers the ways in which each ACE skill was operationally defined for the telephone interview. Participants were then asked to rate the influence of these statements in their professional lives. To learn more about the qualitative research findings, visit the updated report, which includes the positive outcomes from a comparative analyses of academic successes and wage gains for ACE Nursing students versus their non-ACE nursing counterparts including a $45,000 median wage gain six-years post Nursing program graduation.

---

[4] Of the 415 students who answered the open-ended question on which this brief is based, 346 (83%) provided a response regarding the positive impact of the ACE Program that could be coded as part of the analysis. Responses from students who were currently unemployed (2%; 8 of 415) and those who were unsure about (1%; 4 of 415) or who denied (8%; 33 of 415) program impact on their professional lives were not considered. Also excluded were general comments about the program (6%;24 of 415) that could not be mapped to a workplace competency.

Table 2. Definition of Personal Success Skills (PSS) by ACE

Personal Success Skills	Definitions
1. Purpose and direction	• Realizing one's own influence over life and personal success • Considering the consequences of one's actions
2. Self-awareness and self-discipline	• Understanding bioreactions, or the concept of fight, flight, freeze, or appease to ameliorate that response in collaborating and communicating with others
3. Communicating with others	• Teaching the leadership skill of identifying, grasping, and aligning needs/concerns of individuals with the phases a project team goes through or the goals of an organization • Connecting with others by listening differently
4. Working styles	• Understanding one's own and others' working styles and aligning teammates' working style strengths with phases of a project
5. Social justice research[5]	• Cultivating critical thinking through the use of primary research methods • Mastery of computer software (Word, PowerPoint, Excel) to support collaboration and presentation and writing skills

Near the end of the 15-minute telephone interview, respondents were invited to describe **how ACE's specific focus on professional skills like teamwork, working styles, communication, purpose/direction, awareness/self-discipline, and social justice research influenced their workplace achievement.** A secondary analysis of these open-ended responses shows that the skills students are learning in ACE can be mapped directly to NWoW definition of 21st Century skills.

Mapping ACE Skills to NWoW 21st Century Skills

Tables 3, 4, and 5 **chart ACE skills to the 21st Century workplace skills,** as indicated by participants' open-ended responses in the telephone interview. What is presented in each table includes: (1) The NWoW 21st Century skills being addressed; (2) the key ACE professional skills; and (3) sample interview excerpts that represent the competency. **ACE participants described learned affective competencies that positively influenced their work, and in order by those**

---

[5] Students in the Social Justice Research Course work in cooperative teams to conduct primary research—creating a survey, surveying 150 participants, and analyzing, and summarizing findings—to determine community needs and outline a community action plan to address a social or community issue that is of relevance to them. Course assignments include creating and presenting a PowerPoint slide deck that summarizes their research and action plan to an audience of community stakeholders (Nguyen, Purnell-Mack, Cooper, Rodriguez-Kiino, Kretz, Fagioli, Myers, & Rassen, 2018).

most commonly cited, these skills are: collaboration, communication, self-awareness, adaptability, analysis/solution mindset, entrepreneurial mindset, social/diversity awareness, and digital fluency.

About one-half (49%)[6] of students provided responses that closely connect to the NWoW 21st Century workplace skills of collaboration, communication, and empathy, and in select cases, social/diversity awareness. These responses can be linked to the ACE skills of *working styles, communicating with others*, *and self-awareness*. Table 3 highlights student responses that illustrate how particular elements of these ACE professional skills map to one or more of the NWoW skills.

Table 3. ACE Professional Skills Mapped to NWoW Skills of Collaboration, Communication, and Empathy

ACE Skills and Associated Elements	Sample Participant Quotes Illustrating NWoW Skills (in parentheses)
Working Styles	
Use own learning/working styles in relationships	"Learning my working style, I was able to adjust if I need to other coworker's style…" (communication, collaboration)
Identify the learning/ working style of others	"I noticed that I was able to identify working styles and how to deal with people with different working styles." (collaboration, self-awareness)
See the learning/ working style of other people and adjust communication style appropriately	"[I] had a coworker and had a rough relationship because we had the same learning style, [ACE taught me how] to be more receptive [in these types of situations]." (communication, collaboration)
Communicating with Others	
Listen for and understand the needs, purpose, and concerns of others	"The communication [skills learned as part of ACE have] helped me in identifying needs of patients." (communication, empathy)
Self-Awareness and Self-Discipline	
Judge people less	"[ACE] helped me learn in a society with all kinds of people. Different backgrounds. Respect everyone." (social /diversity awareness, collaboration)
Pause in difficult situations without immediately reaction	"[ACE] taught me to have patience with people who are not on the same level." (empathy, collaboration)

Nearly one-half (46%) of participants provided responses that closely connect to the NWoW 21st Century workplace skills of self-awareness, adaptability, and entrepreneurial mindset. These responses can be linked to the ACE skills associated with *purpose and direction*, and *self-*

---

[6] Some of the students' responses related to two or more of the NWoW elements. As a result, the sum of the coded responses add up to more than 100 percent since some responses were counted more than once.

awareness and self-discipline. Table 4 highlights student responses that illustrate how particular elements of these ACE skills map to one or more of the NWoW skills.

Table 4. ACE Professional Skills Mapped to NWoW Skills of Self-Awareness, Adaptability, and Entrepreneurial Mindset

ACE Skills and Associated Elements	Sample Participant Quotes Illustrating NWoW Skills (in parentheses)
Purpose and Direction	
Realize that I have influence over the things that happen	"The program helped me be a leader, find solutions to problems, being independent and aware of surroundings." (entrepreneurial mindset, analysis/solution mindset, self-awareness)
Be prepared, organized, knowing what I have to do	"Being organized, and whatever was my objective to have the right structure and context to reach objective." (self-awareness, entrepreneurial mindset)
Set priorities	"[ACE] taught me] how to prioritize my time and be organized." (entrepreneurial mindset)
Realize that it is my choice whether or not I do well	"The program has prepared me for things that I have come across at work." (adaptability)
Be ready to learn	"[ACE] helped me learn in a society will all kinds of people. Different backgrounds. Respect everyone." (social/diversity awareness, self-awareness, adaptability, collaboration)
Self-Awareness and Self-Discipline	
Focus and concentrate	"Helped me gain focus, listen better, and apply myself better." (self-awareness)

A slight percentage (6%) of interview participants provided responses that link to skills learned as part of the *Social Justice Research* Course, skills that are closely aligned to the NWoW 21st Century skills of digital fluency and analysis/solution mindset. Table 5 highlights student responses that illustrate how particular elements of ACE skills learned as part of the Social Justice Research Course map to one or more of the NWoW skills.

Table 5. Social Justice Research Course Professional Skills Mapped to NWoW Skills of Digital Fluency and Analysis/Solution Mindset

ACE Skills and Associated Elements	Sample Participant Quotes Illustrating NWoW Skills (in parentheses)
Create and present using PowerPoint	"[ACE helped me learn] PowerPoint, [and to be] able to use it for presentations." (digital fluency)
Develop an action plan as part of team's presentative	"Learned to work with computer systems and how to do research helped with communication and be aware of issues." (digital fluency, analysis/solution mindset, communication)
Perform research, including development of a survey	"I started doing surveys for customers at my job, communicating with people/customers." (digital fluency, communication)
Contribute effectively to a team	"[ACE] helped me to give presentations … working with other people." (digital fluency, collaboration)

While fewer than 1% of interview participants provided responses that aligned with the NWoW 21st Century skill of resilience, it should be noted that a handful of participant statements demonstrated the idea of embracing a growth mindset. For example, one student reported that ACE had taught him/her "how to find resolutions within conflict."

Conclusion

A **secondary analysis of the telephone interviews** with ACE completers underscored how ACE provides students with noncognitive, affective, and technical skills that are key to managing and succeeding in the 21st Century workplace. The experiential learning opportunities, small group activities, and project-based social justice project that are critical to the ACE program appear to **provide a space for students to experiment with and hone skills relevant to their professional growth and success**. Students are provided tools to develop, manage, and lead teams with empathy; to communicate authentically and effectively with colleagues and clients; and to develop and play to their strengths, while striving to do their best. These examples are even more powerful given that **many ACE participants face a number of risk factors** that could negatively affect their academic and professional success: nearly one-fourth of survey respondents reported receipt of government assistance, a native language other than English, an unstable home life, and previous probations. Students' responses suggest that the ACE curriculum and pedagogy used to teach professional skills have **positive ramifications for students' mastery of 21st Century workplace competencies as suggested by substantial median wage earnings for ACE nursing students** when compared to their non-ACE counterparts.

For More Information…

Visit http://rpgroup.org/All-Projects/ctl/ArticleView/mid/1686/articleId/152/Academy-of-College-Excellence-Longitudinal-Research-Study

Contact Dr. Rogéair Purnell-Mack, Co-Project Director, rpurnell@rpgroup.org, or Alyssa Nguyen, Co-Project Director, anguyen@rpgroup.org.

References

Asera, R., & Navarro, D. (2013). *A Day in the Life: Pedagogy of the Academy for College Excellence's Foundation Course*. San Rafael, CA: The RP Group. Retrieved from https://tinyurl.com/ydzeoj8j

Farr, B., Rostermund, S., Radwin, D., Robles, J., & Choy, S. (2014.). *Evaluation of the Academy for College Excellence: Report on implementation and student outcomes*. Berkeley, CA: RTI International. Retrieved from https://tinyurl.com/ybb5oapt

Karandjeff, K., & Cooper, D. (2013). *Integrating student transformation, support, and accelerated learning into the classroom: A Student Support (Re)defined Case Study of the Academy for College Excellence*. Santa Cruz, CA: Academy for College Excellence Center. Retrieved from https://tinyurl.com/yb5ok5lt

Navarro, D. (2009). DMCP 112- Social Justice Research Course syllabus-Cabrillo College. Aptos, CA: Author.

Nguyen, A., Purnell-Mack, R., Cooper, D., Rodriguez-Kiino, D., Kretz, A., Fagioli, L., Myers, M., & Rassen, E. (2018). *Academy of College Excellence: A Mixed-Methods Analysis of the Long-Term Academic and Career Outcomes for ACE Students*. San Rafael, CA: Research and Planning (RP) Group for California Community Colleges. Retrieved from http://rpgroup.org/Portals/0/Documents/Projects/ACE/ACEJointReportMARCH2017.pdf

Rassen, E., Purnell-Mack, R., & Nguyen, A. (2017). *Academy for College Excellence: Summary of quantitative and qualitative analysis of long-term students outcomes a mixed-methods study*. San Rafael, CA: Research and Planning (RP) Group for California Community Colleges. Retrieved from http://rpgroup.org/Portals/0/Documents/Projects/ACE/ACECombinedStudiesBrief20171009.pdf

Schultz, A. & Gill, R. (2014). *New World of Work: Community Colleges and 21st Century Skills Skills Panels to Assist Student Career Success*. Quincy, CA: Feather River College and Doing What Matters For Jobs and the Economy. Retrieved from https://www.newworldofwork.org/wp-content/uploads/2016/10/New-World-of-Work-Skills-Panel-Report-April-2014.pdf