



The Kuder Career Planning System and Student Engagement: *Improving Retention, Completion, and Academic Outcomes Among Community College Students*

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INTRODUCTION

Researchers analyzing the impact of the Kuder Career Planning System® (KCPS) have frequently reaffirmed its benefit to students in a wide variety of important areas.

Notable examples include large majorities of surveyed high school graduates citing the system as “highly helpful” in improving their self-awareness, motivation, hope for the future, and ability to set goals¹. Kuder® Coach™ interventions have garnered similar feedback, specifically among at-risk students, where a clear majority of those surveyed expressed improved confidence relating to communication skills, professional skills, and the ability to learn about themselves².

The findings of these studies and others like them are significant and aptly exemplify the primary benefits of system use but are less definitive in communicating the presumable link to measurable academic outcomes.

In recent years, an outcome of national focus has been postsecondary program completion where the United States struggles to award the volume of certificates and degrees necessary to meet workforce needs³.

In the *Community College Journal of Research and Practice*, Price & Tovar explore the relationship between “student engagement” and community college graduation rates (among other measures) to identify academic practices that are conducive to completion. Many of the activities and resources for student development that are built in to the KCPS align directly with those characterized as “student engagement.”

This white paper, *The Kuder Career Planning System and Student Engagement: Improving Retention, Completion, and Academic Outcomes Among Community College Students*, provides a detailed overview of these practices and their alignment with use of the Kuder Career Planning System.

In recent years, national focus on postsecondary program completion has proven that the United States struggles to award the number of relevant certificates and degrees necessary to meet current and workforce needs.

¹ Trusty, J. (2012). Kuder High School Graduate Follow-Up Study: Survey of Kuder Navigator Users who graduated from 2010 to 2012. Adel, IA: Kuder, Inc.

² Grote, D., Trusty, J., Chae, M. (2014). *Career Coaching Influences on College & Career Readiness & Confidence*. Adel, IA: Kuder, Inc.

³ Price, D. V., & Tovar, E. (2014). *Student Engagement and Institutional Graduation Rates: Identifying High-Impact Educational Practices for Community Colleges*. *Community College Journal of Research and Practice*, 38(9), 766-782.

BACKGROUND

The Integrated Postsecondary Education Data System (IPEDS) shows that, between 2010 and 2015, just 60 percent of full-time students and 40 percent of part-time students returned for a second year at U.S. community colleges.

These statistics highlight a larger underlying problem in the labor market, as the U.S. Bureau of Labor Statistics (BLS) projects that, by 2026, approximately half of jobs will require some form of postsecondary education, with just under one-third requiring at least a bachelor's degree⁴.

Long-term trends suggest a widening skills gap, meaning the number of occupations requiring an associate degree or higher will continue to outpace the average growth rate of jobs across all industries.

Conversely, job seekers possessing a high school diploma with no additional education or training will experience a relative decrease in new job opportunities. Projections from the BLS's Monthly Labor Report suggests this divergence will continue through at least 2024⁵.

Factors contributing to this phenomenon — and the policy-based solutions addressing it — have been a topic of discussion in recent years. Many of these ideas are examined in *Bridge the Gap: Rebuilding America's Middle Skills*, a Harvard Business School report.

In it, researchers suggest a significant problem causing these trends to persist is a lack of information and cite years past when “Students and other aspiring workers had virtually no access to relevant information on which courses of study to pursue, how to compare between entry-level jobs for their long-term career paths and wages, or which skills local businesses were seeking.”⁶

Academic research suggests addressing these problems through engagement at the student-level; an idea examined by Price and Tovar in the *Community College Journal of Research and Practice*. In their analysis, Price and Tovar conceptualize “student engagement” using benchmarks established by the Community College Survey of Student Engagement.

Widely accepted by community colleges across the United States, the survey has been administered to over 440,000 students in nearly all 50 states. Benchmarks include active and collaborative learning, student effort, academic challenge, student-faculty interaction, and support for learners.

Nearly 44,000 students across the United States have completed the Community College Survey of Student Engagement, a tool that measures educational and behavioral practices associated with students' learning and retention at technical and community colleges.

⁴ Office of Occupational Statistics and Employment Projections. (2016). U.S. Bureau of Labor Statistics.

⁵ Watson, A. L. (2017). *Employment trends by typical entry-level education requirement*. Monthly Labor Review. U.S. Bureau of Labor Statistics.

⁶ Fuller, J. B., Burrowes, J., Raman, M., Restuccia, D., & Young, A. (2014). *Bridge the Gap: Rebuilding America's Middle Skills*. Report, U.S. Competitiveness Project, Harvard Business School.

The Center for Community College Student Engagement defines its survey as a tool that “provides information on students’ engagement in educationally effective practices and student behaviors that are closely associated with student learning and student retention at community colleges.”⁷

Price and Tovar gathered information on academic outcomes of more than 160,000 students from approximately 1,700 degree- and certificate-granting U.S. institutions, data was retrieved from IPEDS to measure: Institutional characteristics; demographics; and graduation rates.

Price and Tovar’s statistical analysis utilized the standard ordinary least squares regression model in which graduation rates were used as the dependent variable and CCSSE benchmark scores served as the explanatory measure. Demographic and institutional variables collected from IPEDS were used to control for unique and immeasurable characteristics contributing to variance. The regression output is summarized in the results section listed below. Initial analysis revealed statistically significant bivariate correlation between two-year graduation rates (as collected by IPEDS) and three CCSSE benchmarks:

- Active and collaborative learning.
- Student-faculty interaction.
- Support for learners.

Regression Results

The first set of regression results pertained to both full- and part-time students and showed that the explanatory variables (engagement and institutional characteristics) accounted for nearly one third of the variance in their graduation rates. The adjusted R^2 fell only slightly, confirming the selection of appropriate independent variables. Of the tested student engagement variables, the coefficient for support for learners was found to be positive and statistically significant. Additionally, the coefficient for active and collaborative learning was positive and nearly significant.

The second regression pertained exclusively to full-time students. The dependent and independent variables were the same as those used in the first regression. In this case, 40% of the variance in graduation rates was attributable to a combination of the engagement measures and the institutional/demographic variables. Again, the adjusted R^2 fell only slightly, indicating the appropriate inclusion of explanatory variables within the regression. Of the tested student engagement variables, coefficients for active and collaborative learning and support for learners were both positive and statistically significant at the $\alpha = 0.001$ and $\alpha = 0.01$ levels, respectively.

Conclusion

The results summarized above, as the researchers state, “provide support for the salience of student engagement as an important predictor of college completion [...] in particular, the CCSSE benchmarks of active and collaborative learning and support for learners.”⁷

⁷ Price & Tovar, 2014

STUDENT ENGAGEMENT ACTIVITIES AND THE KCPS

In addition to the statistical analysis, Price & Tovar provide detailed discussion of what student engagement activities entail in a practical sense (specifically the benchmarks found to be statistically significant), and the policy-related implications of their findings. They first discuss active and collaborative learning, which was found to be statistically significant in predicting completion in the second regression summarized above.

This benchmark is characterized by activities that encourage students to communicate with one another and to approach academic tasks cooperatively. Additionally, this form of engagement encourages students to discuss concepts they've learned about outside of class with instructors⁸.

In reviewing existing research examining proper implementation of the KCPS, it is apparent that a definitive link exists between system use and activities that are conducive to student engagement in the form of active and collaborative learning.

Studies have shown that the KCPS lends itself to group completion of academic tasks and student-instructor discussion. High school graduates surveyed regarding their experience with Kuder Navigator[®] (Navigator) indicated decisively in their responses that the system helped to spur their involvement in extracurricular activities.⁹

Similarly, students participating in a National Urban League program were asked to rate their level of confidence in interacting with peers displayed a significant increase following their work with a Kuder Coach and use of the system¹⁰.

In 2006, first year students at a Midwestern university were required to utilize the KCPS in group exploration of "career-related resources, majors offered at the university, and informational interviews," and participated in instructor-led group interpretations of assessment results.

Compared to 73 percent of those that did not participate in system-guided group and individual system utilization, 91 percent of these KCPS users were successfully retained after 1.5 semesters¹¹. These findings reflect conclusions found in literature surrounding active and collaborative learning practices, in which measures of terms completed are positively correlated with levels of engagement in this benchmark.

Studies show a positive link between the KCPA and group completion of academic tasks and student-instructor discussion. Furthermore, high school graduates surveyed indicated decisively that the system helped to spur their interests and involvement in extracurricular activities.

⁸ McClenney, K. M., Marti, C. N., & Adkins, C. (2007). Student engagement and student outcomes: Key findings from CCSSE validation research. Austin: Community College Leadership Program, The University of Texas at Austin.

⁹ Trusty, J. (2014). Use of the Kuder Career Search with Person Match at a Public Research University in Greater Miami, Florida. Adel, IA: Kuder, Inc.

¹⁰ Wingert, B. (2017). The Project Ready Kuder Coach Pilot Program: Outcome Report for the National Urban League. Unpublished Study, Adel, IA: Kuder, Inc.

¹¹ Stephen, A. (2010). The effect of the Kuder Career Planning System used in a classroom setting on perceived career barriers, coping self efficacy, career decidedness, and retention.

The CCSSE also reports consistently positive effects on academic outcomes in this area, where grade point average (GPA) is correlated with active and collaborative learning scores “across all studies.”⁸ This, too, is consistent with previous Kuder-driven research on academic success and persistence among system users.

For example, a 2014 study of incoming first-year students concluding that, in addition to better academic performance in their first semester, those who had selected majors aligning with a top-three career interest clusters (as determined by results of the Kuder Career Interests Assessment[®]) exhibited GPA growth that exceeded that of students with non-congruent majors¹².

The coefficient associated with support for learners was found to be statistically significant and positive in both of the noted regressions, suggesting that activities categorized within this benchmark have a robust effect on community college completion. This benchmark is largely a function of perception with respect to the advisory or counseling services available to students, the quality of these services, and the extent to which they are utilized.¹³

With regard to support for learners, community colleges need to reconsider how they structure and deliver student supports, both academic and nonacademic, i.e., the need to innovate methods and tools used to provide support. They continue writing that community colleges must increase the frequency by which students can receive advising services for academic and career planning. This would demand a more active approach and specifically to “include career planning and requiring regular advisor-student engagement throughout a student’s academic career.”

Research surrounding the KCPS exemplifies many cases in which system use would aptly be classified as a highly accessible tool for academic and non-academic student engagement within this benchmark. As previously noted, high school graduates surveyed regarding system use express overwhelmingly that Navigator was highly helpful in selecting high school courses, selecting a postsecondary program or college major, and making educational and career plans.

Furthermore, students reported significantly improved motivation to remain enrolled and be successful in school (Trusty, 2012). The improved motivation and decisiveness expressed qualitatively is apparent in observing completion outcomes for college students. Researchers found that those using the KCPS changed majors an average of two fewer times than non-users.

Additionally, those using the system successfully transitioned to technical and community colleges at rate of 90.8 percent compared to the national average of 67 percent¹⁴.

Students who have had access to the KCPS and selected a college major suggested by results of the Kuder Career Interests Assessment[®] exhibited GPA growth exceeding that of students who had no prior KCPS experience.

¹² Trusty, J. (2014). Use of the Kuder Career Search with Person Match at a Public Research University in Greater Miami, Florida. Adel, IA: Kuder, Inc.

¹³ McClenney, K. M., Marti, C. N., & Adkins, C. (2007). Student engagement and student outcomes: Key findings from CCSSE validation research. Austin: Community College Leadership Program, The University of Texas at Austin.

¹⁴ D’Achiardi-Ressler, C. (2008). The Impact of Using the Kuder Career Planning System: School Performance, Career Decision Making, & Educational Transitions. Adel, IA: Kuder, Inc.

CONCLUSION

This paper sought to highlight the substantive evidence characterizing academic and career guidance activities facilitated by use of the KCPS as a highly beneficial form of student engagement.

The study conducted by Tovar and Price and others like it provide empirical conclusions linking these activities to statistically significant improvements in persistence, academic performance, retention, and completion among community college students. The implications of these findings are highly informative with respect to community colleges' approach to retaining students going forward.

As nearly 40% of the variance in full-time student completion is attributable to engagement in the form of the previously noted benchmarks, **utilization of the KCPS in helping to catalyze active learning and provide support for students positively contributes to the retention and success of newly enrolled community college students.**

Technical and community colleges face unique challenges related to identifying and improving academic and non-academic support services provided.

Kuder can help.

ABOUT KUDER

OUR COMPANY

Kuder is a career guidance solutions provider. We're proud to offer comprehensive tools and resources for career planners at all life stages while supporting collaboration between education, business, and community stakeholders to drive economic success. Our customizable products and services reflect a commitment to encouraging lifelong learning, development, and achievement.

OUR RESEARCH

Dating back to the groundbreaking work of Dr. Frederic Kuder in 1938, we continue his legacy today through outcome studies, white papers, and technical briefs. Our research helps others gain insight on how we build brighter futures for youth and adults, support industry trends and career guidance topics, and summarize assessment activities that demonstrate our reliability, validity, and fairness. We're committed to providing only the highest quality, accurate, and research-based solutions.

OUR PEOPLE

Kuder associates are an innovative and creative group of individuals with diverse knowledge, skills, and academic and professional backgrounds. Together they provide the broad range of experience and expertise it takes to develop the industry's most comprehensive line of lifelong career assessment, planning, and guidance solutions.

ABOUT THE AUTHOR

Ryan McGrew is an economics analyst at Kuder. He supports the company's mission by identifying economic outcomes associated with usage of the Kuder Career Planning System®. Prior to joining Kuder, Ryan attended the University of Iowa, where he was actively involved with writing, research, and social student groups prior to graduating with distinction. He holds a bachelor's degree in economics.



In addition to *Kuder Career Planning Systems and Student Engagement: Improving Retention, Completion, and Academic Outcomes Among Community College Students*, Ryan has authored the following Kuder publications:

- [Kuder Navigator® and Texas Graduation Rates](#); May 2017.
- [Exploring the Economic Implications of Career Guidance](#); September 2017.
- [Tech Jobs are In Demand: Are Workers Ready?](#); November 2017.



Our Vision

To help people discover and achieve what they want to be.

Our Mission

To be the global authority in career guidance and education by providing evidence-based and proven tools to navigate life's journey. Our resources help to raise aspirations to last a lifetime.

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Kuder Career Planning Systems and Student Engagement: Improving Retention, Completion, and Academic Outcomes Among Community College Students was first published in April 2018.

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