

Quality Coaching is Centered on Education-to-Career Outcomes

Principle 1

- Principle 1: Centered on education-to-career-outcomes
- Principle 2: Driven by student agency
- Principle 3: Foundation and universal
- Principle 4: Rooted in relationships
- Principle 5: Informed by data and evidence



This principle emphasizes guidance and support that help students choose educational pathways aligned with their career goals, while providing clear, relevant information about job opportunities, earnings, and labor market outcomes.

In practice, this approach enables students to make informed decisions that align their education with meaningful career outcomes. It is especially critical for students with limited access to informal guidance, as it advances equity by

providing information and support to students furthest from opportunity.

Research on this Quality Coaching principle points to a clear pattern: students benefit from early, proactive, and personalized career guidance grounded in clear labor market information, yet implementation remains inconsistent, especially in direct student support. The strongest impacts are seen for students with less access to strong social capital and networks.

What the Evidence Shows¹

Students often misperceive labor market outcomes, but respond to clear, tailored information.

Studies show mixed patterns of misperception: community college students tend to overestimate earnings while underestimating employment rates,² whereas some majors at four-year institutions (e.g., psychology) overestimate educational requirements without inflating salary expectations.³

Major-specific, institution-relevant labor market information influences student preferences.

When students receive outcomes data tied to their own institution or field of study, many shift preferences toward higher-return majors. These effects are even stronger for undecided students.⁴ Evidence also demonstrates students from higher-income or privately educated backgrounds are more likely to adjust behaviors in response to LMI linked to majors.⁵

Structured early career exploration builds self-efficacy, agency, and persistence in the first year of college.

First-year seminars and career-focused courses consistently increase students' career self-efficacy and confidence in conducting career research.⁶ Participation also is associated with stronger major retention, with students in career seminars nearly three times more likely to remain in their major for STEM majors.⁷

Spotlighting Effective Practices and Models in the Research

Career-focused first-year seminars are offered at four-year institutions across a range of disciplines, including both STEM and non-STEM fields such as the chemical and life sciences and communications. These seminars integrate career exploration, self-assessment, and exposure to professional pathways directly into first-year coursework through activities such as guest speakers, resume development, and reflective assignments aligned with real-world applications. Students report stronger confidence in their academic and career direction, including gains in career persistence self-efficacy and clearer understanding of career options tied to their majors. However, because these courses often are not required and may involve self-selection, expanding access across all disciplines is important to ensure that undecided and underrepresented students can benefit from early career exposure.⁸

Integrated state-level LMI platforms are developed by state higher education agencies and workforce organizations to connect postsecondary programs with labor market outcomes, with examples including California's LaunchBoard, Virginia's Education Wizard, and Colorado's Launch My Career. These tools allow students and advisors to explore wages, job demand, and return on investment, while also informing institutional decisions about program design and alignment with employer needs. The use of platforms improves transparency for students, supports program planning and curriculum alignment, enhances advising conversations, and aids workforce planning by identifying gaps between labor supply and demand. At the same time, their impact depends on digital literacy and active facilitation, as students with limited access to technology or guidance may struggle to navigate these tools, interpret the information they provide, and may not fully benefit without intentional support.⁹

Endnotes

¹[A group of national experts developed the five Principles for Quality Education-to-Career Guidance, which guided this systematic literature review.](#)

The review examined U.S.-based peer-reviewed and high-quality grey literature published between 2016 and 2025, including studies, policy briefs, and reports focused on high school and higher education populations. Sources were selected using replicable inclusion criteria to ensure relevance to education-to-career coaching and guidance practices.

²Rachel Baker, Eric Bettinger, Brian Jacob, and Ioana Marinescu. "The effect of labor market information on community college students' major choice." *Economics of Education Review* 65 (August 2018): 18–30.

³Chehalis M. Strapp, Danica J. Drapela, Cierra I. Henderson, Emily Nasciemento, and Lauren J. Roscoe. "Psychology students' expectations regarding educational requirements and salary for desired careers." *Teaching of Psychology* 45, no. 1 (January 2018): 6–13.

⁴Fulya Ersoy and Jamin D. Speer. "Opening the black box of college major choice: Evidence from an information intervention." *Journal of Economic Behavior & Organization* 231 (March 2025): 1–36.

⁵Baker et al., "The effect of labor market information on community college students' major choice."

⁶Nadya A. Fouad, Arpita Ghosh, Wen-hsin Chang, Catia Figueiredo, and Thomas Bachhuber. "Career exploration among college students." *Journal of College Student Development* 57, no. 4 (May 2016): 460–464; Stephen A. Klien, John W. Elmer, and Patrick J. Rottinghaus. "Using a career research project in the introductory communication course to develop agency, self-efficacy, self-determination, and adaptability in career exploration." *Journal of Communication Pedagogy* 8 (2024): 24–47.

⁷Christopher T. Belser, Diandra J. Prescod, Andrew P. Daire, Melissa A. Dagley, and Cynthia Y. Young. "Predicting undergraduate student retention in STEM majors based on career development factors." *The Career Development Quarterly* 65, no. 1 (March 2017): 88–93.

⁸Deborah S. Goldberg and Ganesh Sriram. "Assessment of short and longer-term impacts of a 1-credit chemical engineering first-year seminar." *Chemical Engineering Education* 56, no. 3 (Summer 2022): 156–164; Amy Liu, Casey Shapiro, Jess Gregg, Marc Levis-Fitzgerald, Erin Sanders O'Leary, and Rachel L. Kennison. "Scaling up a life sciences college career exploration course to foster STEM confidence and career self-efficacy." *Research in Science & Technological Education* 42, no. 2 (June 2024): 378–394; Klein et al., "Using a career research project in the introductory communication course to develop agency, self-efficacy, self-determination, and adaptability in career exploration."

⁹Anthony P. Carnevale, Tanya I. Garcia, and Artem Gulish. "Career Pathways: Five Ways to Connect College and Careers." (Washington, DC: Georgetown University Center on Education and the Workforce, 2017).