



Multiple Pathways to Support Student Learning

What are multiple pathways?

Multiple pathways can be defined as collection of structured educational opportunities that lead to high school graduation and postsecondary and workforce readiness and success. Sometimes the term “linked learning” is used interchangeably for multiple pathways. A multiple pathways approach often includes some element of student choice and a combination of career and technical education with college preparatory academics, and may include components such as early college programs such as concurrent enrollment, credit recovery and acceleration programs, and work-based learning programs. For example, the Linked Learning Alliance (see linkedlearning.org/) creates pathways that combine college preparatory academics, technical training and work-based learning focused on a program of study. Multiple pathways may emphasize linkages between educational opportunities, and collections of pathways can have varying degrees of flexibility for students to move between pathways.

The authors of the report “Linking Learning to the 21st Century” claim the multiple pathways reform movement is based on three core research-based ideas: learning is improved when it combines academic and technical knowledge within real-world contexts; student interest and engagement is increased when learning occurs within real-world contexts; and postsecondary options are greater for students who have engaged in both academic and career-oriented educational opportunities. (Saunders & Chrisman, 2011).

Do multiple pathways enhance learning?

A seven-year evaluation of Linked Learning in California by SRI International found that career pathway high school students, including many subgroups, outperformed students in traditional high schools by several metrics. On average, certified pathway students with low prior achievement were less likely to drop out and more likely to graduate from high school than similar peers in traditional high schools. Further, these students accumulated more credits and college preparatory requirements than similar peers in traditional high school programs” (7). (Warner & Caspary, 2017).

An analysis of research related to CTE programs broadly, including career pathways programs, apprenticeships, and career readiness and skills trainings programs, found that multiple quasi-experimental studies report benefits for students engaged in CTE programming, including higher wages and higher graduation rates. Multiple randomized controlled trial studies of career pathways programs found positive outcomes for students, including studies looking at the early college high school model, the Linked Learning model, the I-BEST program, and Project Quest. (MDRC, 2019)

What is needed to provide multiple pathways to students?



Advance CTE has three main recommendations for states developing high-quality career pathways: (1) prioritize flexible pathways that provide multiple entry and exit points for students, include non-traditional learning opportunities outside the classroom such as work-based learning, and link to postsecondary and workforce programs; (2) include contributions from all relevant stakeholders, including workforce and industry representatives; and (3) regularly review and align career pathways with state and regional workforce needs, particularly for high-demand, high-wage sectors. (Advance CTE, 2017).

A case study report by Advance CTE about ten selected New Skills for Youth (NSFY) innovation sites identified five strategies for success of career pathways, including an explicit emphasis on addressing equity issues such as barriers to access and success. Additionally, successful sites used data to inform interventions and strategies and planned from the beginning for sustainability and scale-up. The sites worked to establish a shared vision among stakeholders from different sectors and continued to engage stakeholders and shift mindsets toward the common vision and goals. (Advance CTE, 2019).

Analysis of the Ford Next Generation Learning network CTE career academies model revealed two main challenges to equity across sites: (1) equitable access, including outreach and engagement, transportation, and processes for selection of students; and (2) establishing and maintaining a supportive school culture for all students, which includes ensuring educators are culturally proficient. (Kantrov, 2017).

Saunders & Chrisman describe six key strategies, each with related recommendations, to build capacity and increase the benefits associated with linked learning or multiple pathways approaches. The authors call for structural changes in educational systems based on reconceptualizing the system as a whole. Another strategy is to strengthen partnerships and collaboration across stakeholders, particularly K–12 education and postsecondary education stakeholders. The authors recommend investing in programming and resources integrating academic and technical, real-world content, with associated teacher professional learning. In addition, they call for policies that encourage work-based learning opportunities for all students. (2011).

Related References:

Advance CTE. (2017). Raising the Bar: State Strategies for Developing and Approving High-quality Career Pathways. Silver Spring, MD.

cte.careertech.org/sites/default/files/files/resources/Raising_the_Bar_Pathways_Approval_2017_0.pdf

Advance CTE. (2019). New Skills for Youth Innovation Sites 2019 Snapshot: Summary Report of 10 Global Investments. Silver Spring, MD.

cte.careertech.org/sites/default/files/files/resources/NSFY_InnovationSite_Summary2019.pdf

Kantrov, I. (2017). Achieving Educational Equity and Justice in Career Academies: Challenges and Promising Strategies. Ford Motor Company Fund.

fordngl.com/component/?view=pdf&task=FordNGL_EquityReport2017.pdf



Saunders, M. & Chrisman, C. (2011). Linking Learning to the 21st Century: Preparing All Students for College, Career, And Civic Participation. Boulder, CO: National Education Policy Center. nepc.colorado.edu/publication/linking-learning

Warner, M. & Caspary, K. (2017). Access & Equity in Linked Learning: A Report on Pathway Access and Academic Outcomes for Traditionally Underserved Students. Menlo Park, CA: SRI International.
d985fra41m798.cloudfront.net/resources/LL_AccessEquity_2018Aug27.pdf

MDRC. (2019). What Works in Career and Technical Education: Evidence Underlying Programs and Policies that Work. mdrc.org/sites/default/files/What-Works-in-Career-and-Technical-Education.pdf

Related Links and Resources:

- acteonline.org/, including:
 - acteonline.org/professional-development/high-quality-cte-tools/
 - acteonline.org/why-cte/what-is-cte/basic-facts/
- careertech.org/, including:
 - careertech.org/resource/cte-current-policy-prominent-programs-evidence