What Will Be the Impact of Programs of Study?
A Preliminary Assessment Based on Similar Previous Initiatives, State Plans for Implementation, and Career Development Theory

Overview

When Congress passed the fourth version of the Carl D. Perkins Act in 2006, it included a requirement that all recipients of funds authorized by the legislation offer at least one Program of Study (POS) that must include coherent and rigorous content aligned with challenging academic standards and relevant career and technical content. This content must be delivered in a coordinated, non-duplicative progression of courses that align secondary education with postsecondary education and lead to an industry-recognized credential or certificate at the postsecondary level or an associate or baccalaureate degree. In addition, the programs must include opportunities for secondary education students to acquire postsecondary credits through programs such as dual or concurrent enrollment.

All states have developed these components to some degree through precursors of POS, such as Tech Prep, career clusters/pathways, youth apprenticeships, and dual/concurrent enrollment. However, the evidence on the effectiveness of these precursors is limited, with few studies comparing students who participated in these programs to similar students who did not. Most of the limited number of studies that made such comparisons found advantages for participants that included an increased likelihood of high school graduation and enrollment in postsecondary education, less need for remediation, and higher grade point averages in postsecondary education.

We examined four precursors of POS (Tech Prep, career clusters/pathways, youth apprenticeships, and dual/concurrent enrollment). A summary of how states propose to implement POS was developed through an analysis of their plans that use the funds provided under Perkins IV. All of the states, the District of Columbia, Guam, and the Virgin Islands submitted plans to the U.S. Department of Education. Using Super’s (1957) theory on career development, we also reviewed the implications of career development theory as it relates to students’ decisions about POS.

Three questions were proposed concerning the implementation of POS:

1. To what degree can secondary and postsecondary instruction be articulated?
2. To what degree can rigorous and relevant technical content be aligned with challenging academic standards?
3. What are appropriate measures of the effectiveness of POS?

What We Learned

Almost all of the state plans describe how POS will draw upon other high school improvement initiatives in the states. Overall, our survey of states’ plans suggested that POS will...
be implemented as modified, refocused versions of existing methods rather than as major changes in how the states deliver career and technical education (CTE). Because the changes are incremental and work within existing structures, the probability of successful implementation of POS is increased.

We also consider the implications of career development theory as it relates to students’ decisions about POS. Occupationally specific CTE requires students to make choices about their future career goals. POS, with their secondary-postsecondary articulation, require a four-year commitment. When high school students are making these choices, however, virtually all are in the exploratory stage of their career development in which they are testing the match of their interests to the requirements of an occupation. This match may not be what many expected; some may decide to try a different career area. From a career development perspective, this is positive growth and should not be considered a failure on the part of either the programs or the students.

**Conclusions and Recommendations**

Regarding our first question, we concluded that POS should align secondary and postsecondary instruction. A greater emphasis should be placed on using students’ interest in the occupations they study to improve their academic skills through curriculum integration.

Our second question addressed to what degree rigorous and relevant technical content can be aligned with challenging academic standards. We recommend that states should work to align rigorous and relevant technical content with challenging academic standards through local development of POS. CTE and academic teachers at the secondary and postsecondary level should be given the time and support needed to work together to develop POS. The cost and logistics of making such opportunities available are formidable but have a high potential to yield the kinds of POS that are needed. POS that are developed and disseminated without the involvement of those who must implement them will not produce the desired results.

With respect to our third question, the percentage of students obtaining postsecondary degrees or certificates should be one of the indicators used to assess the effectiveness of POS, but the core indicators required for all secondary CTE students by Perkins IV will provide more useful information. How do students who follow POS compare to similar non-POS students in terms of academic and technical skills; high school graduation; attainment of proficiency credentials; placement in postsecondary education, advanced training, military service, or employment; and participation and completion of programs that lead to nontraditional occupations? We would supplement these core measures with indicators of engagement with school and career development. Because of the exploratory nature of much secondary CTE, postsecondary certificate/degree attainment within the POS started in high school should not be the primary indicator of POS effectiveness.

Our overall conclusion is that POS can enhance the effectiveness of CTE, especially by aligning technical instruction with rigorous academic standards. Given that most high school graduates are in the exploratory stage of career development, we do not expect high percentages to continue in the POS they followed in high school, but this does not mean that the POS have failed. POS that increase student engagement, improve academic skills, and deepen student understanding of occupations have succeeded even if graduates decide not to continue in the POS at the postsecondary level. POS can help to achieve the goal of making education through occupations as explicit as education for occupations.

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