STARTING EARLY:

Career Development in the Early Grades

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Early career influences are consequential. Although students' focus is on exploration as an opportunity to gain *early* exposure and experience in career areas in which they may have an interest or want to pursue, there are many avenues such as hobbies, extracurricular activities and electives in elementary and middle school that shape decisions for high school career and technical education (CTE) pathways.

Self and career awareness breeds purpose and meaning, enhancing the self-direction and hope of youth. Early career and skill development also enable more harmonious curricular, postsecondary and future career plans. CTE leaders have an important responsibility to inform and influence elementary school systems related to promotion of early career development. This document highlights background, promising practices and the beginning steps to extend CTE efforts into early grades.

Foundations

Empirical research on early career interventions is quite sparse and fragmented. Most career research highlights analogy or job fit, and stages of and influences on career *development* are the contemporary focus. Stages of career development in elementary grades include growth and exploration, and scholars such as Rowe, Savickas, Gottfredson and others highlight the impact of early environment, role models and broader sociological/equity (e.g, sex roles) influences on later career choices. Attention to career identity or maturity (the readiness to make career decisions when they are expected of an individual) is a marker or outcome of successful adolescent career trajectories in the research literature. In fact, ACTE's Career Exploration in Middle School highlights the potential benefits (e.g., higher aspirations for underrepresented youth, engagement in school, increased capacity to plan for the future) of early career work.

Promising Practices

Two promising strategies appropriate to the growth and exploration stage are highlighted below. Both of these capitalize on environmental influences that push for equity and ready students for curricular and early career choices required in middle and high school.

Career Integration into Core Content. The emergence of electives/CTE choices in middle school provides enhanced career exploration. But the core content in middle school receives the bulk of attention with accountability measures. Middle school students in particular often ask "Why do I need to learn this?" Although there is a lot of attention to STEM or STEAM interventions, add-on programs often require additional staff, time and resources. When career illustrations can be **integrated** into core content, career becomes a pervasive concept in school.

The partnership between the Auburn Career Center in Painesville, Ohio and the Lorain and Geauga county school districts provides an excellent example. Built on a collaboration with NC3 and support from Snap-On Tools, the integration of the use of tools in middle school mathematics and science classrooms creates hands-on learning and microcredentials students can earn. Teachers are provided tool carts to teach measurement (tape and rule), torque (wrenches), energy (multimeter) and more. The hands-on, experiential learning in middle school matches the cognitive development and motivational needs and helps students author their own career identity. It provides the agency to engage a purposeful future.

Similarly, the Winston-Salem/Forsyth school district in North Carolina in partnership with the University of North Carolina at Chapel Hill, designed CareerStart. The Career-Start program included the integration of career examples in each of the four core subject areas in district middle schools. This infusion or integration (and not addition) was planned and delivered by teachers. Students see a wide range of jobs with various models (equity in race, gender, and socioeconomic status) that spur career identity at a core developmental turning point. The positive results of this program are clear. Not only did students report increased belonging and engagement in school, they demonstrated enhanced transition to middle school and improved achievement (Woolley et al., 2013). Further, rigorous evidence even showed a trend in closing achievement gaps for underrepresented students (Rose et al., 2012).

Career competencies and socioemotional learning can be taught in distinct programs. But when these are infused in all classrooms, they complement the efforts of CTE instruction in more technical areas. Integration into the core curriculum is by no means simple. Administrators need to prioritize the effort; subject area teachers need professional development on the current job market; hands-on manipulatives for developmentally appropriate strategies are needed along with allies and collaborators (especially middle school counselors). CTE leaders need to leverage collaboration to cultivate systemic change such as this.

The Classroom and School as a Workplace. Part of understanding the world of work is awareness of jobs or careers in in a student's immediate environment. This may come from family or what is available in the community. Transforming classrooms and school context into a mock work setting complete with job listings, interviews, supervisors and evaluation can accomplish this task too.

Through a collective brainstorm with students, while taking into account developmental readiness, classroom teachers can identify job responsibilities and routines for which students can take ownership. For example, jobs could include a *Classroom Computer Engineer* to troubleshoot classroom technology or other CTE-related occupations. Students can consider their own strengths and indicate job preferences, and teachers may select from interested students or place students intentionally in roles to capitalize on or develop upon strengths.

Jobs include requirements and responsibilities that can be rotated on a weekly or monthly basis to optimize student exposure and increase equity. Completing a self-reflection or teacher evaluation of "job" performance helps gauge the students' congruence and success in a role. This can extend beyond the classroom in a whole school context as well. Safety patrol, morning announcements, and library assistants are common student roles. The roles provide experiential learning to extend career skills such as self-management, relationship and communication skills, and responsible decision making.

When CTE leaders or school counselors include online applications with job qualifications and teacher recommendations, job placement including a hiring letter, contracts pledging a commitment to the role and assessment of job performance by supervising staff — these experiences prompt understand of the world of work and give students an opportunity for career exploration and growth while enhancing the school community.

Additional Strategies. Other examples of career development activities in the early grades include the following:

- At A.J. Lindeman elementary school in Kentucky staff combine a career walk giving exposure to various jobs and a visit to the reality store to buy life essentials based on the salaries of career choices to envision future lifestyles. The broader Operation Occupation (Mariani et al., 2016) includes token economies in classrooms, targeted school counselor and career infused classroom lessons, a career fair and more.

- At Grand Prairie ISD elementary school in Texas staff use Xello software on interests, mock interviews and job shadowing of school personnel to complement science-fair like displays of careers.

- At Rapid City Area Schools in South Dakota staff create a developmental sequence of career examples integrated into the core curriculum along with specific instruction on training, industry certifications and postsecondary education linked to careers.

- Students at middle schools in the Michigan Upper Peninsula have summer opportunities at Delta-Schoolcraft Career Tech Center changing motor oil and rotating tires, learning basic welding, and making key fobs with a computer numerical control mill. Similarly, elementary schools in the Chula Vista School District in CA visit Innovation Stations created with local energy-based companies to explore hands-on work matched to early interests.

These are but a few of the possibilities. Other practices include inviting middle school students to high school CTE courses to shadow and learn about choices; bringing high school Career and Technical Student Organizations (CTSO) to collaborate, share and teach elementary and middle school students; individualized assessment and career planning/portfolios; career-infused course registration processes; classroom guidance lessons in advisory programs; CTE/elective instructors taking part of grade level or teacher teams; and many more can prepare students optimally for career clusters in high school.

Getting Started

The examples provided here need to start with and fit in a planned and coordinated programmatic approach to early grades CTE. ACTE provides many tools to accomplish this task. In particular, *Defining Student Quality: Student Career Development* (2019) unpacks the history and momentum of extending CTE into the elementary and middle school levels and provides additional examples of comprehensive, sequential career and academic planning.

For example, this resource highlights further detail on career exploration and planning tools that enable students to determine their goals, interests and aptitudes. It also details the necessity of extensive and current information dissemination. Programs of study, work-based learning, CTSOs, dual enrollment and other opportunities that may be new to elementary or middle school students and families can be confusing. To enable exposure and accurate information dissemination, CTE professionals, school counselors and other school staff require professional development in order to translate data/programming and stay aligned with current trends.

Another publication produced by ACTE and Advance CTE, *Broadening the Path: Design Principles for Middle Grades CTE*, provides a complete blueprint with rubrics for guided implementation (easily applicable to elementary school). Specifically, CTE professionals have to start with outcomes and design thinking to inform offerings. The Design Principles recommended in *Broadening the Path* include the following:

1. **Be equitable and inclusive of each student.**
2. **Be anchored in careers.**
3. **Be standards based.**
4. **Be grounded in experiential and hands-on learning.**
5. **Balance breadth and depth across the curriculum.**
6. **Be integrated into the broader K-12 — or P-20 — career development system.**
7. **Include intentional and meaningful employer engagement.**
8. **Involve dedicated instructional time.**
9. **Communicate effectively to student and their families**
10. **Focus on student growth.**

Career development is rarely a priority in elementary and middle schools. Starting early requires CTE professionals to extend research informed efforts that transform the context of elementary and middle school career programming. These efforts can make CTE programming in high school more fluid. It also helps students and families equitably and more effectively navigate curricular, postsecondary and career paths required in today's dynamic world of work.

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