



Understanding the Impact of Career Storytelling in Career-Connected Learning

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Executive Summary

This research paper aims to advance the growing body of knowledge on the impact of career-connected learning (CCL) on academic performance, career awareness, and successful transition from school to college or the workforce. Leveraging a study group of more than 300 professionals at various stages in their careers discussing their journeys from education to career, this paper highlights the dual approach of combining career exposure and career exploration with core academic content, providing students with opportunities to gain insight into various professions, make informed career decisions, and develop essential skills. Using a thematic analysis of these “Career Stories,” Pathway2Careers (P2C) researchers identified **11 shared domains** designed to assist educators in creating a holistic framework on which to build stronger strategies for career-connected learning.



The United States Department of Education’s call to advance career-connected learning requires a significant shift in approach to career education. **Career exposure** involves providing students with firsthand experiences and knowledge about various professions through activities such as career fairs, guest speaker sessions, and informational interviews. **Career exploration** entails engaging students in hands-on experiences, internships, and job shadowing to help them explore potential career paths. Career exposure and exploration activities significantly enhance students' career awareness and foster long-term career planning among K-12 students. Integrating comprehensive career exploration programs into K-12 education can better prepare students for successful

transitions into the workforce, enabling them to make informed and purposeful career decisions in the future. Career exposure and exploration are also useful in addressing skill shortages by inspiring students to pursue careers in fields where there is a demand for skilled professionals.

A national leader in career connected learning, Pathway2Careers built a first-of-its-kind, math-focused curriculum for students in grades 8 through 12. The unique approach immerses students in the exploration and understanding of more than 650 high-value careers, across 300 lessons, and aids students in drawing connections between these lessons and the practical application of math concepts within those careers. Pathway2Careers is the first to match those math skills with occupations that rely heavily upon them. Included in the lessons are more than 300 professionals, who share personal stories of how they came into their careers, what their careers are like, and their future aspirations. Students who never knew what a civil engineer or data scientist were, who wonder about the day-to-day work of a veterinary technician, or who have never met an airframe and powerplant mechanic come face-to-face with each of them and get to know them through the power of story. This element embodies the Pathway2Careers core value that **if students can see it, they can be it.**

The first-of-its-kind effort to develop a comprehensive math curriculum in which math principles are taught in the context of real-world career application and career story videos allow teachers to hear firsthand the lessons learned or advice these professionals have for today's students. With these stories in their toolbox, teachers can distill the collective wisdom into their own approaches to career connected learning in their classrooms.

Common themes across the career stories include passion, taking advantage of opportunities, having curiosity, good written and verbal communication, interest in art alongside math and science, life-long learning, role of extracurricular activities, unremarkable high school achievement, non-linear career path, risk taking, hard work and determination, and feeling fulfilled.

Common Themes	Insight
Passion	Be passionate about your work, identify and follow your passions. Passion provides purpose to your life.
Take Advantage of Opportunities	Take advantage of every opportunity, opportunities such as in-school activities, sports, or clubs, volunteer or out-of-school work experiences.
Curiosity	Identify the things you are curious about and learn as much as possible about those things, whether as a class or through investigating topics on their own.
Strong Written and Verbal Communication	Knowing how to present oneself, communicate with diverse team members, and speak in public served a variety of professionals well in their careers.
Interest in Art, Math, and Science	Subjects may seem at odds in an educational setting, they come together in how technical skills were applied in careers.
Life-Long Learning	Enables growth in current career, discover areas of interest, fill knowledge gaps, and receive additional credentials or certifications to expand skills.
Extracurricular Activities	Increased employability skills, such as leadership, relationship-building, communication, public speaking, and teamwork, acquired in athletics, band, volunteerism, or clubs.
Unremarkable High School Achievement	When learning became relevant to career goals with the assistance of teachers, that despite the struggle, provided encouragement and focused on their strengths academic and career goals were achieved.
Non-Linear Career Path	Career journeys did not necessarily go in a straight line, going from one occupation to another, not always connected to a single industry, the lessons learned in one industry providing enormous benefits in another.
Risk Taking	The importance of taking risks, struggling, and having opportunities to fail along a career journey is invaluable in learning how to not give up in achieving career goals.
Hard Work and Determination	The importance of hard work and determination is fundamental to career success, working hard and staying focused are key factors in career journeys.
Feeling Fulfilled	The path to career success involved a self-assessment and understanding their gifts, strengths, and passions, rather than relying on the advice of others, choosing happiness in a career over financial rewards is the path to a more satisfying and fulfilling life.

As a result, students who engage with Career Story videos are more likely to:

- Identify and pursue their passions.
- Challenge misperceptions of work and find purpose in their careers.
- Recognize and seize opportunities for growth and experience.
- Embrace self-driven learning and develop soft skills.
- Explore interdisciplinary interests by combining STEM and arts.
- Build employability skills through activities.
- Overcome academic challenges through learning experiences and support.
- Navigate non-linear career paths with agility and adaptability.
- Develop resilience to embrace risks and learn from failures.
- Achieve success through work and determination.
- Prioritize personal fulfillment when making career choices.

This library of career stories provides valuable insight into best practices for career-connected learning and provides a valuable educational framework on which to build for both teachers and students. While students benefit greatly from high impact practices in career exploration and exposure, including internships and guest speakers, employing virtual mentors through video career stories introduces students to far more occupations they may not have considered or have even been aware.

If educational systems across the nation are to respond effectively to the U.S. Department of Education call to advance career-connected learning, a significant shift in our nation's approach to career education is imperative. This shift towards integration of a CCL approach will require a concerted effort involving educational institutions, policymakers, industry stakeholders, and educators themselves. The CCL model encompasses successful practices whereby students can identify and capitalize on their aptitudes for a successful career. Through the use of an

integrated academic and career exploration model, students can find relevance in their academic learning plans, fostering greater enthusiasm and engagement, and chart a course toward a successful career outcome.

The Impact of Career Exposure and Career Exploration on Outcomes for K-12 Students

Abstract

This paper seeks to inform the growing body of knowledge in the education field on the impact of Career-Connected Learning (CCL) on academic performance, career awareness, and successful transition from school to college and/or the workforce. Leveraging a study group of more than 300 professionals at various stages in their careers discussing their journeys from education to career, this paper highlights the long-term outcomes for K-12 students of the dual approach of combining career exposure and career exploration with core academic content. Career exposure and exploration initiatives provide students with opportunities to gain insight into various professions, make informed career decisions, and develop essential skills.

Guided by key findings from empirical studies, we can examine the effects of career exposure and exploration on students' career awareness, academic performance, engagement, skill development, and long-term career planning. Using a thematic analysis of these "Career Stories," Pathway2Careers (P2C) researchers identified 11 shared domains designed to assist educators in creating a holistic framework upon which to build stronger strategies for career-connected learning. This library of Career Story videos features successful skilled professionals in a variety of fields who serve to educate, inspire, and serve as virtual mentors to students who are interested in the occupations and career areas represented. The review also highlights the importance of integrating comprehensive career exploration programs into K-12 education to prepare students for successful transitions into work, college, or the military.

Introduction

Pathway2Careers, a national leader in career-connected learning, built a first-of-its-kind math-focused curriculum for students in grades 8 through 12. The unique approach to teaching Pre-Algebra, Algebra I and II, and Geometry immerses students in the exploration and understanding of more than 650 high-value careers, defined as in-demand, growing, and providing a living wage, across 300 lessons followed by drawing connections between these lessons and the practical application of math concepts within those careers.

Discreet math skills have incredible value and applications in a variety of 21st Century careers. Pathway2Careers is the first to do the work of matching those math skills with occupations that rely heavily upon them.

Embedded within the P2C curriculum is another element of career exploration and awareness building—Career Story videos. More than 300 professionals, primarily in New Mexico, across a range of occupations, were invited to share personal stories of how they came into their careers, what their careers are like, and what their future aspirations may be. Diverse in age, gender, ethnicity, education, and geography, these storytellers have important information and lessons learned to share with those who will enter the workforce after graduation.

These individuals bring career awareness to student groups who are just as diverse and who may never have heard of many of the careers held by these “virtual mentors.” Students who never knew what a civil engineer or data scientist were, who wonder about the day-to-day work of a veterinary technician, or who have never met an airframe and powerplant mechanic come face-to-face with each of them and get to know them through the power of story. This element embodies the Pathway2Careers core value that if students can see it, they can be it.

The lessons from these career stories also extend to educators as they examine how these 300 individuals achieved their career success and how they made the transition from their K-12 studies to college and/or work. Through the videos, teachers hear firsthand the lessons learned or advice these professionals have for today’s students. With these stories in their toolbox, teachers are able to distill their collective wisdom into their own approaches to career-connected learning in their classrooms.

This paper will provide the research foundation upon which career-connected learning has been built thus far. It will identify themes across the stories shared by these diverse professionals about their own career journeys. As educators across the nation respond to the U.S. Department of Education’s call to advance career-connected learning, this paper will also provide recommendations to forward-thinking educators who are embracing CCL to benefit their students, their communities, and their states.

Literature Review

The United States Department of Education’s call to advance career-connected learning presents a progressive experience for students by building awareness of certain careers and taking students through a deeper level of career exposure and exploration. This leads to the pursuit of learning for the skills necessary for career success and work-based learning to build real-world connections which will ultimately result in employment.

Career exposure and career exploration play crucial roles in shaping the future prospects of K-12 students. This literature review examines the existing research on how career exposure and exploration initiatives influence outcomes for students, focusing on the areas of career awareness, academic performance, skill development, engagement, and long-term career planning.

Career exposure involves providing students with firsthand experiences and knowledge about various professions through activities such as career fairs, guest speaker sessions, and informational interviews. **Career exploration** entails engaging students in hands-on experiences, internships, and job shadowing to help them explore potential career paths.

Research shows that career exposure and exploration activities significantly enhance students' career awareness. Byars-Winston, et al. (2011) found that students who participated in career exposure programs demonstrated increased knowledge about diverse career options and potential career trajectories. Career exposure and exploration initiatives also foster long-term career planning among K-12 students. Research by Trusty and Niles (2018) demonstrated that students who were exposed to various career options were more likely to engage in proactive career planning and set clear career goals.

Career exposure and exploration also positively influence academic performance. According to Gysbers, et al. (2014), students who were engaged in career exploration activities showed higher levels of motivation and engagement in their studies, leading to improved academic outcomes. This benefit also extends to heightened skill development among K-12 students. A study by Kuder et al. (2018) revealed that hands-on activities, such as internships and career-related projects, helped students develop essential skills, such as communication, problem-solving, teamwork, and time management.

Career exposure and exploration are also useful in addressing skill shortages in certain industries by inspiring students to pursue careers in fields where there is a demand for skilled professionals. This, in turn, contributes to the economic growth and development of the region (Freeman et al., 2017). These initiatives also work to challenge traditional gender and cultural stereotypes associated with certain careers, encouraging students from diverse backgrounds to explore a wider range of career options and break into fields previously dominated by specific demographics (Bullock et al., 2019).

The research suggests that integrating comprehensive career exploration programs into K-12 education is vital for preparing students for successful transitions into the workforce and lifelong learning. Collaboration between schools, parents, and the community is essential to ensure the effectiveness of these initiatives (Hughes et al., 2020).

The evidence is clear that career exposure and career exploration have a significant impact on K-12 students, better preparing them for successful transitions into the workforce, and equipping them to make informed and purposeful career decisions in the future.

About the Career Stories

The collection of career stories was part of a U.S. Department of Education State Education Agency (SEA) grant to New Mexico. The New Mexico Public Education Department partnered with Pathway2Careers, a national leader in career-connected learning, to take on a first-of-its-kind effort to develop a comprehensive math curriculum in which math principles are taught in the context of real-world career application.

Part of the curriculum was the intentional effort to help New Mexico students hear from “real” New Mexicans, many of whom had grown up in the state and who held a variety of highly skilled jobs throughout the state. The sheer lack of awareness of jobs in the state continues to be a workforce issue holding back economic development and growth in several key industries. There is an urgent need for skilled workers in New Mexico, and each graduating year presents the opportunity to invite thousands of students into these careers or into the state’s colleges and universities to prepare students for higher-skilled jobs. However, students cannot step into jobs they do not know exist.

Pathway2Careers presents a powerful opportunity to reduce the “brain drain” that has plagued the state for many years by increasing student awareness of the wealth of opportunities available within their communities.

Outreach to the volunteer storytellers was done in partnership with The Bridge of Southern New Mexico, a business-led, education focused non-profit organization focused on increasing high school and college graduation rates and building a skilled and ready workforce in Doña Ana County, New Mexico. The organization’s work has been so successful that its impact and relationships extend statewide. Leveraging its network of partners, including the New Mexico Chamber of Commerce, the New Mexico Association of Chamber Executives, members of the New Mexico State Workforce Board, numerous private sector economic development organizations, colleges and universities, nonprofit entities, and others, a statewide series of stories from real people poured in over an 18-month period.

Front Porch Studios collected the videos, some recorded over internet platforms like Zoom, and others from individuals' phones. Front Porch Studios edited the stories and created and curated the library of authentic, unscripted stories.

Although unscripted, each individual was asked to respond to a series of prompts and questions as listed below.

- Please introduce yourself (for consistency among all the interviews please use the following format).
 - My name is_____.
 - I grew up in _____.
 - I work as a (Job Title) for (Company) which is based in (location).
- What do you do as a _____? (Please use these questions as talking points)
 - What specifically are you responsible for?
 - What do you do during your typical workday?
 - What is your favorite part of your job?
- What was your pathway to this career?
 - Please include any relevant education, licensure/certifications, or special skills you attained for your current job.
 - Feel free to include your personal experiences that impacted you to become a (Job Title) such as childhood / family events and personal interests and aptitudes.
 - If relevant, feel free to include anything along your pathway that you wished you did differently.
- How did your high school experience prepare you to be successful in your job? If relevant, please include:
 - Specific coursework
 - Skills attained
 - Life lessons learned
 - Relationships formed
- Any other words of wisdom you would like to share?
- What do you see yourself doing in the next five years?

Most videos average five- to seven-minutes in length. A few are longer, based on the helpful information interviewees who may have had multiple careers to share. For example, the video of the Spaceport America engineer is slightly longer than 20 minutes. Career stories are embedded within the digital version of the P2C curriculum in lessons in which specific careers are highlighted. More recently, Pathway2Careers developed lessons to go along with specific career stories to help educators maximize the impact of those stories on students' own career journeys.

Common Themes Across Stories

In the more than 300 career stories, many people who volunteered their stories were well into their careers, with some at the mid-career mark, and others heading toward retirement. A few were new in their jobs, but they had been in some other area of the workforce for some time. Participation in the effort was completely voluntary, which may lead to the perception that those who chose to participate felt that they had something to share with teens just starting out on their career journeys.

All of the participants were **passionate** about their work, and many talked about identifying and “following your passions” in their advice to students. Passion gave them purpose in their lives. Those in caregiving professions spoke about the importance of compassion and wanting to make others' lives better. No one described their work as routine or monotonous. Rather, they talked about the variety their work provided, stressed that each day is different, and shared how much they specifically liked the variety their jobs provided. They embraced the concept that change is constant and thrived on it. Their stories challenged the prevailing national narrative about work as a “chore,” and provided an alternative narrative of work as their purpose and motivation for life.

Opportunities were also a prevalent theme. Some talked about the opportunities they took advantage of, such as in-school activities, sports, or clubs, as well as volunteer or out-of-school work experiences. Many encouraged students to “take every opportunity that comes to you.” The storytellers did not provide much specificity about what those opportunities were, but rather focused on opportunities as mechanisms of growth and experience. Opportunities were discussed as both open doors to careers, as well as learning experiences as to what jobs they were not ultimately interested in pursuing. The forester, who did not know what career or degree to pursue, took a summer internship with the Forest Service and “fell in love with it.” Having a better sense of the career destination made her understating in college courses better “because it was relevant.” The student engineer at Los Alamos National Laboratories “wished someone would have told me to take every opportunity you can get.” Work-based learning

through apprenticeships, internships, summer jobs, and even meeting others in a variety of careers helped shape the college and career-related decisions of numerous participants.

Curiosity was another theme that emerged from the video stories. Participants advised students to identify the things they were curious about and learn more about those things, whether as a class or through investigating topics on their own. The Vice President of Healthcare Analytics talked about always asking “why?” as a child that later led to an interest in statistics as a mathematical way to answer that question. Many followed their curiosities into their college courses, majors, and/or career destinations. The soft or employability skills of critical thinking and problem solving were frequently mentioned in career stories, including that of the Spaceport engineer, the atmospheric and space scientist for the National Oceanic and Atmospheric Administration, and the director of a pre-school.

The importance of verbal and written **communication** was discussed by a multitude of participants in a wide variety of careers. Those in technical jobs (engineers, economists, scientists) discussed how much English or technical writing classes were beneficial to them in their work, including the firefighter/paramedic who used those skills for grant and report writing. Knowing how to present oneself, communicate with diverse team members, and speak in public served a variety of professionals well in their careers.

Numerous storytellers from STEM (Science, Technology, Engineering, and Math) careers expressed **interest in art alongside math and science**. While these subjects may seem at odds in an educational setting, they come together in how their technical skills were applied in careers. The computer programmer, ecologist, tax accountant, and public art director all mentioned an interest in art along with STEM-related courses.

Life-long learning was also a recurring theme. In some ways, storytellers connected this to curiosity, but it was more specifically mentioned in how individuals grew in their careers. Some waited years to tackle college after entering the workforce in order to discover their areas of interest. Others, as working professionals, took courses to fill knowledge gaps. Many with bachelor’s degrees mentioned going to community college for courses or credentials to expand their knowledge and skills in ways that benefited their career journeys. Some jobs, like the CEO of a heating, ventilation, and air conditioning (HVAC) company discussed the constant need for certifications and training to keep up with changes in the industry. Others, like the veterinary technician, described continuing education as a “way to better yourself.” The interior designer shared that getting comfortable with learning new skills “is the best feeling in the world.”

The role of **extracurricular activities** in both identity formation and skill-building was also significant. Numerous participants discussed the employability skills, such as leadership, relationship-building, communication, public speaking, and teamwork, that they learned in athletics, band, volunteerism, or clubs like Future Farmers of America (FFA). Career and Technical Education courses were mentioned as doorways to careers or proved to be beneficial to them in other career areas. The welding instructor took a welding class as an elective, later became a welder, and now teaches high school welding and leads the color guard team at her school. The Federal Wildlife Officer and Reservist talked about the importance of interpersonal skills as you progress in authority in your career. The bank teller learned communication skills through participation in community activities.

Those who characterized themselves as **“not a great high school student”** went on to achieve great success in their careers. A number of technically skilled professionals shared this thought, including the mechanical engineer with a learning disability and the human resource specialist now pursuing a doctorate. They described how the change came for them when their learning became relevant to a job. The best example of this was the chemical engineer who failed chemistry once in high school and barely made it through the second time. When he went on to community college and needed a lab credit, he took chemistry and liked it at that level. He learned what a chemical engineer could earn, and ultimately pursued that career. Some also credited teachers who, despite the struggle, encouraged them in some way by focusing on their strengths or pointing them in new directions.

For most, the **career journey did not necessarily go in a straight line**, but was rather more like a game of leapfrog, going from one occupation to another, sometimes connected in an industry, and other times, the lessons learned in one industry providing an enormous benefit in another. The library and cultural center director who came from a college-going family went to college because it was expected but had no idea what career to pursue. A degree in business led to running a business, a job at a theosophical publishing house, and going back to graduate school at 40 years old to study history. Several people who were unsure of a path chose to enter the military for a time and shared that the skills they learned there helped them choose civilian professions or college majors later. The airframe and power plant mechanic who joined the Navy said, “Bootcamp was the best thing that happened to me.” He worked for a municipality for most of his career, then went back to community college to get a two-year degree that allowed him to work on planes.

Several professionals, like the logistics specialist and the pre-school director, talked about the importance of **taking risks, struggling, and having opportunities to fail** along a career journey. The mechanical engineer also saw value in “learning how to fail” as part of teaching him to not give up in achieving his career goals. Not being afraid to take

risks was the advice of the diagnostic radiation technician who said, “You may come up with the next best new thing.” The president of a carpet company said, “Don’t be afraid to make mistakes. Don’t worry about the past. Course-correct and learn from mistakes.”

There was a recurring theme of those looking back over their careers and describing the importance of **hard work** and **determination** to their success and in their encouragement to students. The wind turbine installer who started a lawncare business as a youth discussed the importance of hard work on his journey to later sell his business to fund college and enter his current career. Those who were high school athletes, including the professional soccer player, saw how hard work benefited them in their sports. Many, like the urgent care radiology manager, offered advice to students that working hard and staying focused would serve them well in their career journeys.

When asked if they have anything else to share, a large number of participants echoed the theme of **enjoy what you do**. The path to finding a career involved a self-assessment of those things that made them happy or feeling fulfilled. They encouraged students to understand their gifts, strengths, and passions, rather than only trusting the advice of others in charting the course to a career destination. The adage, “Do what you love, and you’ll never work a day in your life,” was specifically mentioned by a few professionals. Some participants specifically advised students to choose happiness in a career over the money they could earn as the path to a more satisfying life.

Impact and Conclusions

Based on a study involving more than 300 personal career stories, the impact of Career Story videos on students can be summarized using a logical model or framework. This logic model or framework provides an overview of the outcomes of Career Story videos on students and demonstrates the impact on the career development process as well as decision making.



The observed outcomes indicate recurring themes that can be grouped into 11 domains.



Domain 1: Exploring Careers and Passion

Identifying Passions. Career Story videos serve as an inspiration for students to recognize and pursue their passions. The individuals featured in these videos often emphasized the significance of aligning their careers with their passions in order to find purpose and motivation in their journeys.

Challenging Prevailing Narratives: These videos challenge the prevailing notion of work being merely a "chore" by presenting it as a source of purpose and motivation in life.

Domain 2: Seizing Opportunities and Experiences

The Importance of Seizing Opportunities. Career Story videos emphasize the importance of making the most out of opportunities both within school settings and beyond as means for personal growth and gaining experience. These opportunities are considered pathways towards discovering career interests.

Work-Based Learning. The individuals featured in these videos frequently highlight the value of work-based learning, which includes apprenticeships, internships, summer jobs and exposure to diverse career paths. Such experiences play a role in shaping decisions related to education and future careers.

Domain 3: Curiosity and Soft Skills

The Power of Curiosity. Career Story videos inspire students to follow their curiosity and delve into subjects that captivate their interest. Many participants shared how their inquisitiveness guided them towards volunteer projects, early work experiences, college courses, majors, and ultimately shaped their career paths.

Nurturing Soft Skills. As a natural outcome of this inquisitiveness, professionals from multiple fields emphasized the role of soft skills, such as critical thinking, problem solving, effective communication (both verbal and written), and public speaking. These skills were seen as vital for success across a range of careers.

Domain 4: Integration of STEM and Arts

Blending STEM with Arts. Individuals pursuing STEM careers often expressed a passion for artistic pursuits alongside their technical expertise. Career Story videos beautifully illustrate how subjects like mathematics, science, and art can seamlessly merge in professions highlighting the nature of work.

Domain 5: Lifelong Learning

The Importance of Lifelong Learning. Career Story videos underscore the value placed on learning throughout one's professional journey. Professionals shared anecdotes about embracing learning through formal education, certifications, or even self-improvement endeavors to remain relevant in their respective fields.

Domain 6: Activities and Shaping Identity

The Role of Extracurricular Activities. Career Story videos shed light on the impact that extracurricular activities have on identity formation and skill development. They showcase how engaging in extracurricular pursuits equips individuals with abilities that contribute to shaping their identities within both personal and professional spheres.

Engaging in activities, like sports, volunteering, and joining clubs can help individuals develop skills that are highly valued by employers. These skills include leadership, effective communication, and the ability to work well in a team.

Domain 7: Overcoming Academic Challenges

Achieving Success Despite Academic Challenges. Some professionals who did not consider themselves high achievers during their time in school still managed to find success in their careers, including those in highly technical fields. Career Story videos demonstrate how relevant learning experiences and encouragement from teachers can make a difference in shaping an individual's career path.

Domain 8: Non-Linear Career Paths

Non-Linear Career Journeys. Career Story videos illustrate that career paths often take turns with individuals transitioning between different occupations and industries. Lessons learned in one field can have an impact on success in another. This has great implications for today's students who are predicted to have as many as seven careers over the course of their lifetimes.

Domain 9: Embracing Risks and Learning from Failure

Eliminating the Fear of Risk and Failure. The professionals featured in the videos emphasize the importance of taking risks, embracing challenges, and viewing failures as opportunities for learning and growth. Adopting courageous attitudes and a growth mindset can lead to significant gains in one's career journey.

Domain 10: Hard Work and Determination

Recognizing the Value of Hard Work and Determination. Career Story videos highlight how hard work and determination play a role in achieving success. Professionals often stressed the benefits of staying focused and dedicated to their goals. "Hard work" is seen as a benefit that brings out the best in individuals and helps establish a foundation of excellence in the life of a professional.

Domain 11: The Pursuit of Happiness and Fulfillment

"Do What You Love". One recurring theme from the videos is the importance of choosing a career that brings happiness and fulfillment. Professionals strongly encourage students to understand their strengths and passions, prioritizing satisfaction over gain.

As a result, students who engage with Career Story videos are more likely to:

- Identify and pursue their passions.
- Challenge misperceptions of work and find purpose in their careers.
- Recognize and seize opportunities for growth and experience.
- Embrace self-driven learning and develop soft skills.
- Explore interdisciplinary interests by combining STEM and arts.

- Build employability skills through activities.
- Overcome academic challenges through learning experiences and support.
- Navigate non-linear career paths with agility and adaptability.
- Develop resilience to embrace risks and learn from failures.
- Achieve success through work and determination.
- Prioritize personal fulfillment when making career choices.

Conclusion

Recommendations for Teachers and Students

The P2C library of Career Stories provides valuable insight into best practices for career-connected learning and provided a valuable educational framework upon which to build for both teachers and students.

While students benefit greatly from high impact practices in career exploration and exposure, employing “virtual mentors” through Career Story videos introduces students to a variety of skilled, fulfilling occupations. Students are able to expand their thinking about potential career opportunities, day-to-day tasks, and varied pathways to achieve end goals. The benefit of this cadre of “virtual mentors” available to students and adding videos as new fields and career opportunities emerge, cannot be understated. Career stories will be especially vital for emerging careers, especially in technology, for students and educators (Career and Technical Education *and* core academic teachers, administrators, and counselors) to keep abreast of changes in industry sectors and the job market into which students will one day enter. Stories speak louder than data, and at this time, the data systems that track occupations experience significant lag times. Real-time access to industry professionals opens the door for greater relevance and innovation in career-connected learning.

Further, the quantitative data from this study allowed the researchers to break down the points of relevance from reliable sources – individuals who have experienced success in their career fields.

Utilizing the more than 300 personal Career Stories with a logical model or framework allowed researchers to develop 11 domains of career-connected learning through the identification of recurring themes found throughout the Career Story videos. The recurring themes found within the Career Story videos:

- Exploring Careers and Passion
- Opportunities and Experiences
- Curiosity and Soft Skills
- Integration of STEM and Arts
- Lifelong Learning Activities and Shaping Identity
- Overcoming Academic Challenges
- Linear Career Paths
- Embracing Risks and Learning from Failure
- Hard Work and Determination
- The Pursuit of Happiness and Fulfillment

Using these themes provides a strong framework around which all educators can develop a more holistic approach for academic instruction infused with career education and exploration based in best practices and proven career successes.

The Career Story videos produced as part of this project allow students to connect the dots between their known interest and their academic development in the classroom. Storytelling has long been known to help students develop understanding and inspiration in achieving their goals. Those same storytelling principles live in the Career Story videos developed and used as part of this overall project, where stories serve to build connections between the storyteller and listener through the sharing of their own challenges and opportunities. These honest and authentic career stories allow students to engage in career exploration with professionals they would not otherwise have

access to during the course of their educational journey. The 11 domains that emerged provide valuable life lessons upon which students can build as they learn about skills needed to enter and be successful in their chosen careers.

Recommendations for Teacher-Education Programs

Currently, teacher education programs reserve career development content and activities solely for guidance and counseling programs or secondary Career and Technical Education programs, neglecting inclusion in other K-12 teacher education curriculum frameworks. This exclusion creates missed opportunities to provide all students with career-connected experiences proven to enhance motivation and academic performance as mentioned above (Gysbers et al., 2014).

If educators across the nation are to respond effectively to the U.S. Department of Education's call to advance career-connected learning, a significant shift in many post-secondary teacher education programs nationwide is imperative. This shift towards integration of a CCL paradigm will require a concerted effort involving educational institutions, policymakers, industry stakeholders, and educators themselves.

We can specifically see the importance of early career exposure in the context of teacher preparation itself. Many still believe that good teachers are born and not made, or good teachers will figure it out with classroom experience. Research indicates differently; recent evidence also indicates that reforms of teacher education wherein extended clinical preparation combined with coursework on teaching and learning produce teachers who are both more effective and more likely to enter and stay in teaching (Hammond-Darling, 2023). This “study-*and*-work” model, or CCL model, provides pre-service teachers with real-world experiences and high-quality mentorship from experts in the field, resulting in a better prepared and more confident new employee/teacher (Bierly & Smith, 2022).

Currently, many teacher education programs continue to employ a “study-*then*-work” (Bierly & Smith, 2022), approach to coursework, having students learn the fundamentals and theories of teaching and learning in the college classroom. Participation in the actual classroom portion of the program lies toward the end of students' studies as a capstone experience. Over the years, this more traditional model of teacher preparation has proven less effective for many, with some preservice teachers even leaving the occupation of teaching upon graduation. Reportedly, once immersed into the classroom, they felt unprepared for and/or disinterested in the “real-world” of teaching.

Teacher education programs utilizing a CCL model are partnered with K-12 education systems. They have strong relationships with master teachers and administrators within school districts and program goals are aimed at

building a pipeline of highly qualified teachers. Ideally this partnership begins with high school students who have participated in quality career development content and activities throughout students K-12 experience and into post-secondary education. The CCL model encompasses successful practices whereby students can identify and capitalize on their aptitudes for a successful career. All students are exposed to a variety of career opportunities enhancing diversity among those who enter teacher education programs.

In the same way, career preparation demands exposure to any career long before an individual enters into their education and training for it. And it is role of the *entire* teacher corps to help students begin to see their path forward as they learn English, math, science, history, and any other core subject area, not just those in the Career and Technical Education courses.

College is not a destination; it is just part of the journey toward a career. *All* teachers can have a major impact on their students, as they embrace the understanding of career-connected learning in practice, and answer, once and for all, the decades old question, "When am I ever going to use that?"

Appendix

Protocol for Qualitative Study

Career Exposure Impact on Outcomes and Mentorship through 300 Career Interviews with Adults

Introduction

1.1 Purpose

The purpose of this qualitative study is to explore the impact of career exposure on the career outcomes of adults and to provide mentorship opportunities for K12 students by showcasing successful career journeys. The study aims to understand the career pathways, educational background, personal experiences, and reflections of adults in various professions, and how their high school experiences contributed to their current success.

1.2 Participants

The study will involve 300 voluntary adult participants from diverse professional backgrounds and industries. Participants will be selected based on their willingness to share their career journeys and experiences through video conferencing interviews.

1.3 Data Collection

The primary method of data collection will be through semi-structured video interviews conducted with each participant. The use of video conferencing will allow for flexible scheduling and participation from geographically diverse individuals.

Interview Questions

Part 1: Personal Introduction

2.1 Please introduce yourself.

My name is _____. I grew up in _____. I work as a (Job Title) for (Company) which is based in (location).

2.2 What do you do as a _____?

Part 2: Job Responsibilities and Daily Activities

- 2.3 What specifically are you responsible for in your current role?
- 2.4 Can you describe your typical workday and the tasks you perform?
- 2.5 What is your favorite part of your job and why?

Part 3: Career Pathway

- 2.6 What was your pathway to this career?
- 2.7 Please share any relevant educational background, licensure/certifications, or special skills you attained for your current job.
- 2.8 Were there any personal experiences that influenced your decision to pursue this career? This could include childhood/family events, personal interests, or aptitudes.
- 2.9 If relevant, is there anything you would have done differently along your career pathway?

Part 4: High School Experience and Career Preparedness

- 2.10 How did your high school experience prepare you to be successful in your current job?
- 2.11 If applicable, please elaborate on specific coursework, skills attained, life lessons learned, and relationships formed during high school that have contributed to your career.

Part 5: Words of Wisdom

- 2.12 Do you have any other words of wisdom or advice you would like to share with K12 students aspiring to pursue a career similar to yours or others in your field?

1.4 Data Analysis

Thematic analysis will be employed to identify patterns and themes in the responses of the participants. The research team will transcribe the interviews and analyze the data to gain insights into the impact of career exposure and the significance of mentorship on career outcomes.

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