

REIMAGINING PATHWAYS TO STUDENT SUCCESS: PENCIL'S OBSERVATIONS & RECOMMENDATIONS FROM A THREE-YEAR RETROSPECTIVE

BRIEF #3: BUILDING RELATIONSHIPS THROUGH
DEVELOPMENTALLY ALIGNED PROGRAM MODALITIES

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Over the past two years, youth serving non-profit organizations in the education and workforce development fields have needed to rapidly innovate, create, and adapt in the unstable and uncertain environment of the pandemic. Like our peer organizations, PENCIL shifted to virtual service delivery, developed new models, and refined programs to offer young people what they needed most during this unique and historic moment.

PENCIL also embraced this time to learn from our work and understand the specific program elements that drive desired outcomes in our efforts to “connect students to success.” With support from the Carnegie Corporation of New York, PENCIL conducted a three-year retrospective evaluation to understand what is working, what could be better, and what we can share to strengthen the field’s efforts overall. The result of that work is captured in a series of three briefs, each exploring a unique, data-driven hypothesis for one of the pillars of PENCIL’s Theory of Change. PENCIL’s Theory of Change asserts that to be “connected to success” a young person needs Developmental Relationships, Skill Attainment, and Access to Opportunity. Specifically, the briefs will explore the following topics:

- The difference between Career Explorers and all other PENCIL programs in its ability to increase students’ access to opportunity and sense of belonging. Notable trends were observed for high school students and first-generation college bound students.
- The difference between virtual and in person service delivery on building mentorship relationships for students especially for different age groups.
- The difference between school-year and summer program models on our measures of skill attainment and the potential for more developmentally scaffolded year-round approaches.

Students participating in PENCIL programs are asked to complete pre and post surveys. These surveys include 18 questions across three indices designed to measure PENCIL’s three “Keys to Success.” Factor analysis conducted on all asset questions and individual indices found indices to be internally consistent and unique (TLI =0.95, RMSEA =0.047). MANOVA was conducted on Z-scores created from individual indices. Post hoc analysis was conducted on programmatic and demographic variables showing statistically significant (CI > 95%) intergroup differences as well as the interaction effects between two demographic variables. Dependent variables included year, program, virtual/in-person, grade, self-reported race/ethnicity, gender, age, English spoken at home, and parental education. Post hoc tests were not conducted due to data limitations. Preliminary post hoc analysis focused on population subgroups show trends based on available data and do not meet the sample size requirements for statistical significance. Data was collected and reviewed across four program offerings:

The PENCIL School Partnership Program (In Person)

PENCIL creates and supports ongoing relationships between business partners, schools, and students to prepare students for college and career success. PENCIL staff coordinate and guide monthly sessions that are supported by business partner volunteer teams. Programming increases student access to relationships, skills, and opportunities unique to the business sector. Sessions range from workshops on networking and professional communication, to panels with corporate volunteers introducing students to career options within a company. In person program data was collected during the 2018-19 school year (n=277).

The PENCIL School Partnership Program (Virtual)

Virtual School Partnership Programs offered the same content and structure as the above but adapted for online delivery. Virtual program data was collected during the 2019-20 and 2020-21 school years (n=217).

PENCIL Internship Program

Each year, PENCIL places hundreds of students (ages 16-22) in paid six-week summer internships at companies across New York City. Students are required to attend 20 hours of pre-employment training facilitated by PENCIL staff and corporate volunteers to learn essential career-readiness skills including financial literacy, office technology, networking, and personal branding, interview best practices, and workplace etiquette. PENCIL matches students to interviews for available summer positions businesses recruited from a variety of industries. Final hiring decisions are made by employer partners. Internship data was collected from students in virtual and in-person internships during the summers of 2020 and 2021 (n=68).

PENCIL Career Explorers

In response to the impact of COVID-19 on the availability of internships, PENCIL designed and launched Career Explorers. The program offers high school students a paid work-based learning experience designed to promote career awareness, exploration, and preparation. All program components have been delivered virtually. Career Explorers attend the internship program's pre-employment training facilitated by PENCIL staff and corporate volunteers and then engage in 150 hours of paid work-based learning during the summer. They complete an industry-specific project related to their career interest and are paired with a volunteer mentor from that industry who provides guidance and feedback as well as networking and career exposure. PENCIL staff provide daily supervision to ensure participants remain focused and meet all deadlines and deliverables. Career Explorer data was collected from students during the summers of 2020 and 2021 (n=67).

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In the distribution of this series, PENCIL hopes to contribute to and advance the conversations around what it will truly take to harness this moment in time and prepare young people for successful pathways in their academic and career pursuits. New York City is hungry for an economic renaissance as the effects of the pandemic stabilize. Part of that equation must be an understanding that when we connect students to success, we connect the city to success. It is in our collective best interest to learn from the past two years and reemerge with, not the same old programs and opportunities for young people, but better ones that sustain and scale the successful innovations born of this moment.

BRIEF #3: BUILDING RELATIONSHIPS THROUGH DEVELOPMENTALLY ALIGNED PROGRAM MODALITIES

Relationships have the power to create the opportunities young adults in New York City need to succeed. As defined by the Search Institute, developmental relationships are close connections that help young people discover who they are, cultivate abilities to shape their own lives, and learn how to engage with and contribute to the world around them. Research demonstrates time and again that relationship development and social capital are key indicators for future success. Furthermore, relationships across difference, particular economic difference have the power to support economic mobility for groups that often face barriers to opportunityⁱ

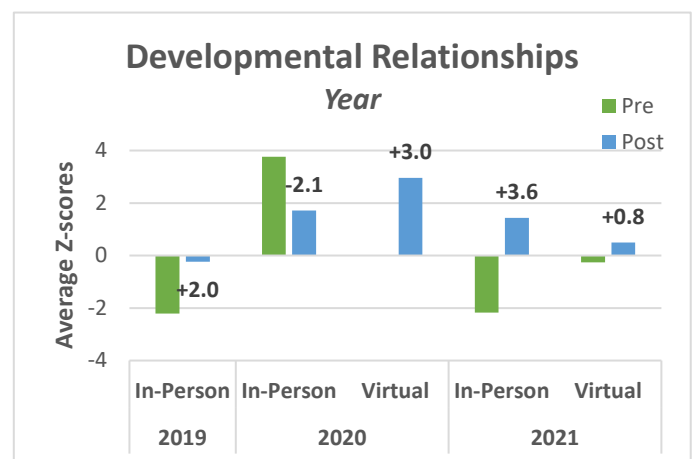
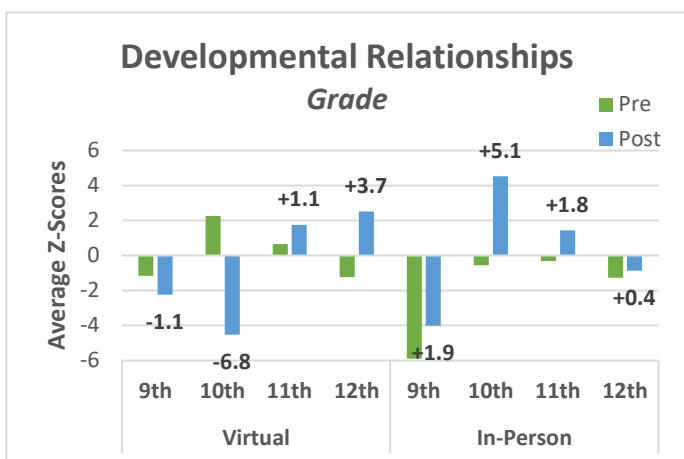
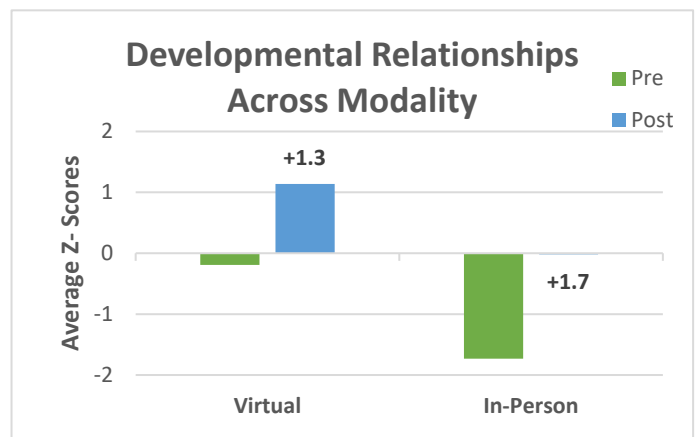
With the onset of the pandemic, PENCIL needed to switch to virtual programming. At a time when there was limited opportunity to build new connections, PENCIL needed to adjust how it connected students to volunteers. This required adapting how programs were delivered, changing the presentation of material, and exploring new formats for volunteer and student interaction. Over the past 28 months, PENCIL has delivered over 950 virtual program sessions, providing critical data on how students have connected with, and learned from, PENCIL volunteers during that time as compared to pre-pandemic, in-person work.

Through both virtual and in-person program modalities PENCIL works to help students develop meaningful relationships with volunteers through facilitated processes. Students and volunteers engage in activities to get to know each other as people. Volunteers are encouraged to share stories about challenges as much as successes. Students are challenged by volunteers in positive ways to aspire to stretch goals. These connections help students internalize that there are adults outside their families or social circles that care about and support their success.

Young people with three or more caring adults in their life are more likely to achieve their goals.ⁱⁱ How young people build and trust those relationship vary, especially across age and environment. Therefore, it is important to understand what programs modalities work best for different age groups as the build meaningful connections.

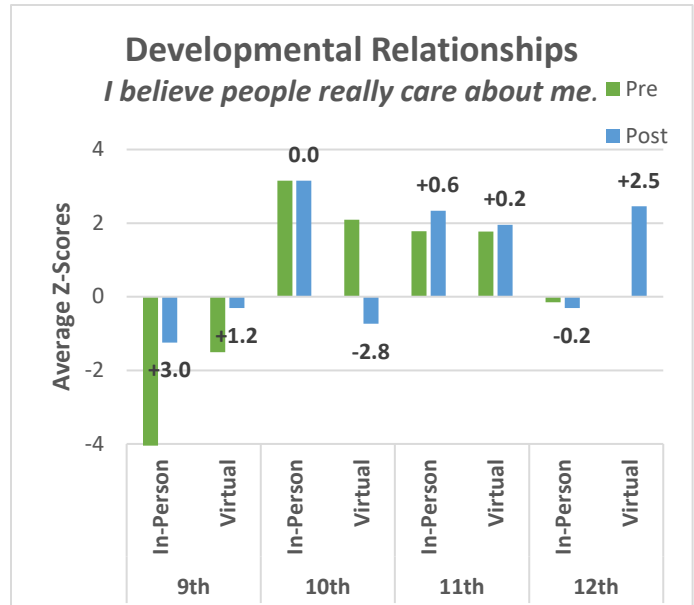
Findings

From 2019 through 2021, students in PENCIL’s in-person programs reported greater gains in PENCIL’s Developmental Relationship index compared to students in virtual programs. The developmental relationship index measures students’ connection to and trust of adults. Upon further inspection of the data however, it appears the students in virtual programs in 2020 as well as 12th graders across all years experienced stronger gains than even the aggregate for all in-person students.



The results for program modality across years have low n numbers for in-person work in 2020 and 2021. Nevertheless, looking at the data in the context of each of these years might offer insight into the boon in outcomes through a virtual modality in 2020 when virtual was the only way to connect with new people. This impact might be diminishing in 2021 as schools and other activities began to return in-person and zoom fatigue had fully taken hold.

Perhaps the most interesting result in the data is the incredible difference in outcomes for 9th and 10th graders versus 11th and 12th graders when modality is accounted for. 10th graders in particular greatly benefit from in-person programs while experiencing a decline in the index through virtual work. Meanwhile, 12th graders get stronger benefits from virtual programs than in-person.



What we can statistically observe related to this index is that some drivers of the disparities between 10th and 12th grade seem to be related to the extent to which participants felt they believed people really care about them. This data couples with the program implementation reality as related to how and when authentic relationships are built for high school students.

Program Reality

Given the disproportionate outcomes for students at different grade levels through different program modalities, it is important to understand what elements of the program may be contributing to positive or negative outcomes in relationship development. This exploration will inform how program modalities can be developmentally aligned across not only PENCIL’s portfolio, but the broader field as well. Based on conversations with school leaders and corporate volunteer leads we understand that some virtual programming will be here to stay. However, we must examine the parts of virtual work that work best for what age group and when and why it might be necessary to require in-person engagements to bolster program outcomes.

Near-Peer Networks– 10th graders engaged in PENCIL partnerships are typically in mixed groups with peers in the upper grades. In-person sessions offer these students opportunities to interact and establish relationships not only with the PENCIL volunteers, but with older students they may not otherwise interact with. 10th grade students are then able to build meaningful relationships with these students through informal meetings between classes and after school. PENCIL sessions address the important role of near-peer relationships as part of a larger support system, with volunteers sharing their experiences and demonstrating the value of these relationships for both the older and younger student. Through these conversations, all students are encouraged to connect outside of sessions and making younger students attempts to build relationships with older students more likely to be accepted and returned. Students in the virtual setting, while exposed to the same peer group and conversations, are not presented with natural touchpoints outside of the partnership and any connections made during a session stay siloed in the context of the partnership and never grow into meaningful relationships.

Partners in Key Decisions – As students enter 11th and 12th grades, they begin their college search and face many choices around their academic and professional future after high school. PENCIL partnership sessions address these topics, offering students not only information but access to volunteers to serve as mentors. PENCIL volunteers work in small groups with students and serve as a valuable resource to share experiences in different post-secondary settings, offer guidance on choosing a school, and provide a longer-term perspective as students

navigate this complex landscape. For 12th graders who are finalizing significant decisions around college and preparing to enter a vastly different environment, virtual programs are especially valuable as they offer the ability to connect with adults with wide range of backgrounds and personal college experiences otherwise inaccessible to students. Students may be more open to relationship building and value these relationships more at this point, regardless of session format (in-person or virtual) because of the immediate need for and value from their connection and interactions with volunteers.

Ideal Conditions – Many schools first introduce students to the concept of a network and mentorship through advisory classes, extracurricular activities, or standalone workshops in the 9th and 10th grade. These sessions are effective in piquing students interests and explaining the value of networks and mentorship; however, they rarely provide access to adults necessary for students to begin building these key connections. PENCIL partnerships create the ideal conditions for older students familiar with the concept of networks and actively interested in creating one, but who have lacked the necessary time and access to volunteers. While all PENCIL programs promote interactions between students and volunteers, PENCIL’s virtual programs have adapted their focus and structure to allow for more open conversations between students and volunteers, with shorter presentations and fewer structured activities. This shift was a direct result of requests from students who wanted more time to connect with volunteers. The space for connection provided by PENCIL, coupled with a foundational knowledge of the importance of mentors, create ideal conditions for students to build meaningful relationships with volunteers in the virtual environment.

Recommendations

PENCIL, like many youth-serving nonprofits as well as schools, was forced into virtual program delivery due to the pandemic. The switch to virtual was reactive, born out of necessity and crisis, but all signs point to virtual delivery remaining a modality for some learning and programming. A virtual modality allows for students to engage with people across geographic distance, welcoming students to a world far beyond New York City. Virtual programs also address some student and family concerns about travel in a city like New York where there have been increasingly public and widespread instances of violence. Yet, just like most things, there is a time and a place to leverage the benefits of virtual programs. The results of PENCIL’s evaluation demonstrate that the virtual modality can be effective for older students who have already built a foundation of agency and comfort working with adult volunteers. Building that foundation with younger students is key to any success in the virtual space and the data presented tells us that the foundation for quality relationships needs to be built in-person for younger students. How in-person and virtual work complement each other will be important for PENCIL, its peers, and the city’s schools to understand when supporting the unique needs of young people at each stage of their development. To that end, following are several recommendations for the field as well as PENCIL’s own program enhancement.

Prioritize in-person programs for younger high school students to build a foundation that enables them to develop relationships regardless of program modality. The biggest variable introduced to PENCIL’s programs over the past two years was the change in modality. As such, in this evaluation, PENCIL wanted to understand that impact on program success and outcomes. While generally in-person presented only marginally better, in disaggregating the data the virtual modality was not effective, and potentially defective, for 10th graders. Considering what students experience in the early half of high school, deeper program models that cut through the stress and changes around them while encouraging group formation with peers as well as volunteers are necessary to foster more meaningful connection. It appears that one variable to support deeper connection is the ability to be in-person. Furthermore, given concepts of networking and social capital are newer to young students it may be harder for them to fully realize abstract concepts in an abstract (i.e., virtual) environment. Building these foundational concepts, and practicing with those concepts, in a live, in -person environment, needs to be applied in programs for younger students. Not only might in-person work enhance outcomes for 10th graders, but it may also have a lasting effect in their ability to leverage future opportunities to build relationships. Moving forward, it will be important for PENCIL and its peers to ensure any career programs with 10th graders that center around relationships with volunteers are delivered in-person rather than virtually. Virtual program engagements should be reserved for older students taking into consideration the next few recommendations.

Align volunteer/student interactions with timely needs and decisions of students. Just because students gain access to volunteers from a variety of industries, does not automatically mean relationships of value will flourish. Students are faced with different types of decisions over the course of their high school trajectory. If the ways volunteers engage with students do not align with supporting the specific decisions they grapple with each year, the value of that relationship might diminish. Furthermore, as students get older the specificity and gravity of decisions increase. Such decisions can be discussed through focused facilitation in-person or virtually. On the other hand, younger students might be in a more exploratory phase and need tangible in-person experiences to learn, ask questions, and begin articulating goals and aspirations. Activities, experiences, and modalities through which volunteers support the timely needs of students should be considered when planning programs and interactions. While New York City may be working towards the north star of career success for all young people it is important to remember that there are small decisions and steps along that way for which students are seeking advice and counsel. Jumping straight to big life changing decisions when students are younger, before meeting in person, may not resonate at that time and may create a perception that the adult volunteers are out of touch with their needs and experience. As the city builds more structure and programming related to student pathways it is important to take a step back and tend to the fundamental building blocks that make up those pathways.

Harness the potential of virtual engagements with purpose and intentionality. The results of this evaluation demonstrate that while virtual programs should not be a default for younger students, they should absolutely be leveraged for older ones. Nearly every sector has articulated that virtual modalities are here to stay for work, learning, and recreation. As we think about virtual modalities in service to student success, there is a tremendous amount of potential. Virtual programs allow students to meet and learn from volunteers across the globe which can increase the diverse representation students see across industries as well as a variety of values and norms associated with “success.” Technology can be further harnessed to welcome students into corporate spaces and places that are currently inaccessible due to geographic distance or other barriers. Creating access to people and places in this way can excite older students as they embark on their own journeys beyond high school and beyond New York City. As schools and partners embed technology fueled opportunities into program and curriculum it will be important to consider logistics, hybrid facilitation, and the true level of effort necessary to organize and implement these experiences.

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PENCIL will continue to evaluate the programs delivered virtually compared to in-person work and ensure our own programs incorporate the improvements discussed above. Additionally, as NYC considers new models during the 2022-23 academic year, PENCIL looks forward to working with and learning from the many partners in the city to understand the opportunities to build meaningful relationships with students and volunteers across program modalities. We encourage the sharing of data, observations, and models to achieve that end and are happy to widely collaborate.

To discuss opportunities for partnership, please contact [Jessica Bynoe](#), PENCIL’s VP & Chief Strategy Officer. For information on PENCIL’s evaluation methodology and research, please contact [Keith A. Howey](#), PENCIL’s Director of Impact & Operations. For details on our program implementation, please contact [Devaughn D. Fowlkes](#), PENCIL’s Associate Director of Programs or [Katje Lilah King](#), PENCIL’s Senior Program Officer.

ⁱ Chetty, Raj et al. (2022). Social Capital I: Measurement and Associations with Economic Mobility. Nature.

ⁱⁱ Roehlkepartain, E. C., et al. (2017). Relationships First: Creating Connections that Help Young People Thrive. Minneapolis, MN: Search Institute.