PATHWAY2CAREERS PILOT STUDY

NS4ED **RESOURCE**

PILOT STUDY

INTRODUCTION

The question asked in every math classroom year after year is, ***"When will I use this in the real world?"*** By answering this question and bridging the gap between textbook theory and real-life application, we can help students understand the why behind the what and increase student success and economic growth. These meaningful and relevant educational experiences can increase students' motivation, persistence, skill retention, task completion, and more. In 2018, Perkins V, the Strengthening Career and Technical Education Act for the 21st Century, updated the previous Carl D. Perkins Career Technical Education Act of 2006 to focus on the demands of regional workforces. With this new focus, federal and state funding recognize the importance of integrating education, the economy, and the workplace into CTE programs, preparing students for high-demand jobs (Comprehensive Local Needs, 2020). In addition, the federal CTE funding under Perkins V directly addresses monitoring and improving the performance of historically underserved students, standing up to the inequalities and barriers erected for these students in the past (Alliance for Excellent Education, 2018).

The Pathway2Careers™ curriculum focuses on the intersection of the workplace and education, preparing all students for successful, lifelong careers. By providing equal opportunities and access to all students, NS4ed strives to close the performance gap and ensure equal opportunities for everyone. This curriculum was initially released for supplemental use in a pilot phase to teachers in New Mexico during the Spring of 2021. Surveys were conducted to capture initial use in the classroom and feedback regarding its benefits and weaknesses.

METHOD

Participants

There were 30 participants in the pilot study. All participants were teachers in a pilot program, for which they received either professional development credit or a stipend. Teachers in the program were instructed to complete the survey after every three lessons they implemented. Six surveys were thrown out for being duplicates or incompletes. Of the remaining 24 teachers, 7 used virtual instruction format, 5 used an in-person format, and 12 reported using a hybrid (a combination of virtual and in-person) instruction format. Though 24 teachers took the survey for the first three lessons, only 18 of them completed the survey for lessons 4-6, so with any comparative analysis, only these 18 teachers were considered.

Procedure

In the first section of the survey, teachers were asked a series of basic demographic questions—name, district, school name, state, and email—along with questions about how many times they have completed the survey, how many years they have taught which math subjects, what math classes they were using the Pathway2Careers curriculum in, and which curriculum they have used. The following section of the survey pertained to the lessons, including which Pathway2Careers lessons they taught, if students were engaged and interested in the lessons and career content, and if the content and design were grade-appropriate. The final section of the pilot survey reflected on the curriculum. Teachers were asked if students demonstrated an increased interest in learning math and exploring careers and if there has

been an increase in performance amongst students because of the Pathway2Careers curricula, and what the most significant benefit for students using the curricula was.

Results

This survey intended to gain perspective on teacher opinions and feedback regarding the pilot curriculum. Due to the small number of responses, any data showing differences between the first and second surveys are only used to show a trend in the right direction and should not be interpreted as significant differences. Through the survey, we hoped to see teachers report improvements in math attitudes and performance amongst students. We also sought teachers' feedback on the lessons and curriculum and any specific feedback, comments, or questions regarding the pilot program.

Lessons

Teachers reported using the Pathway2Careers curriculum throughout various classes, including 6th, 7th, and 8th math, financial literacy, geometry, pre-algebra, algebra I, and algebra II. Seventy-one percent of teachers reported using the Pathway2Careers Algebra I curriculum, and 75% percent have used the Pathway2Careers Geometry curriculum. Ninety-five percent of respondents reported students were engaged and seemed to enjoy completing the Pathway2Careers math lessons (Figure 1.1). Ninety-six percent of teachers said the career content in the lessons to be interesting and engaging for students (Figure 1.2). Ninety-six percent of teachers reported the math content in the Pathway2Careers lessons to be grade-appropriate for students (Figure 1.3). Ninety-two percent of teachers reported the layout and design of the pilot lessons as appropriate for students (Figure 1.4).

Student Engagement and Enjoyment

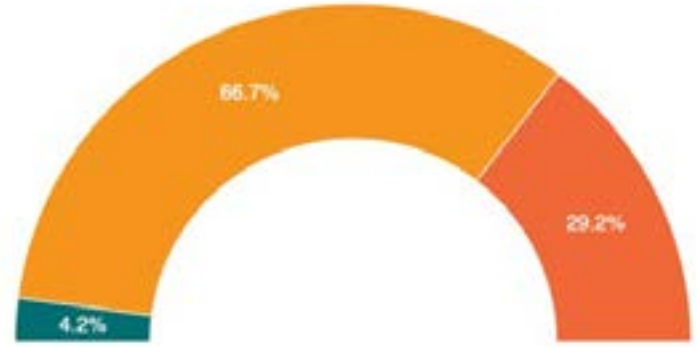


Figure 1.1

Career Content

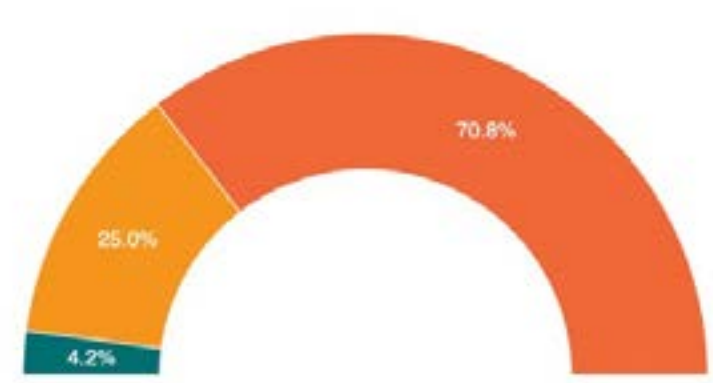


Figure 1.2

Grade-Appropriate

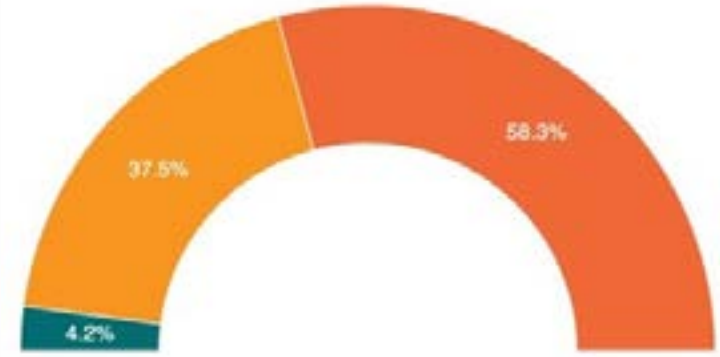


Figure 1.3

Layout and Design

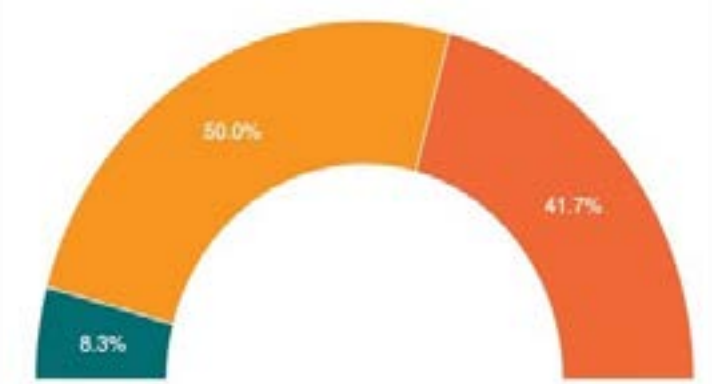


Figure 1.4

Not at all true *Not very true* *Pretty true* *Very true*

Curriculum

Eighty-three percent of teachers reported an increased interest in career exploration as a result of using the Pathway2Careers curriculum (Figure 2.1).

In addition, 83% of teachers reported an increased interest in learning math, while 92% reported observing an increase in math performance in students (Figures 2.2, 2.3).

With extended use of the Pathway2Careers curriculum, the survey responses showed an increase in observed ratings of interest in math and career exploration (Figures 2.4, 2.5).

Exploration increase

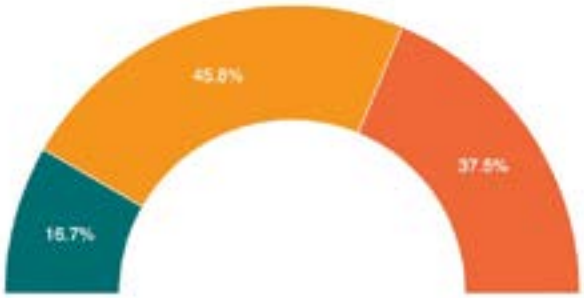


Figure 2.1

Math performance increase

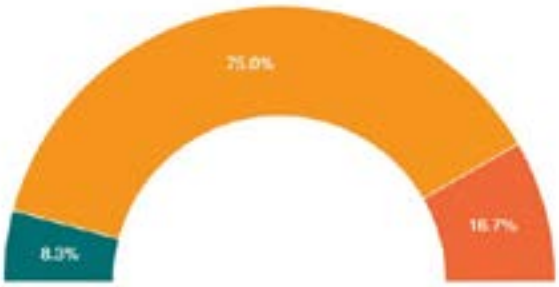


Figure 2.2

Increase in math interest

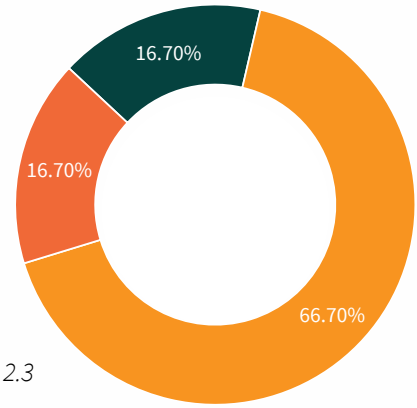


Figure 2.3

Increased interest in learning math

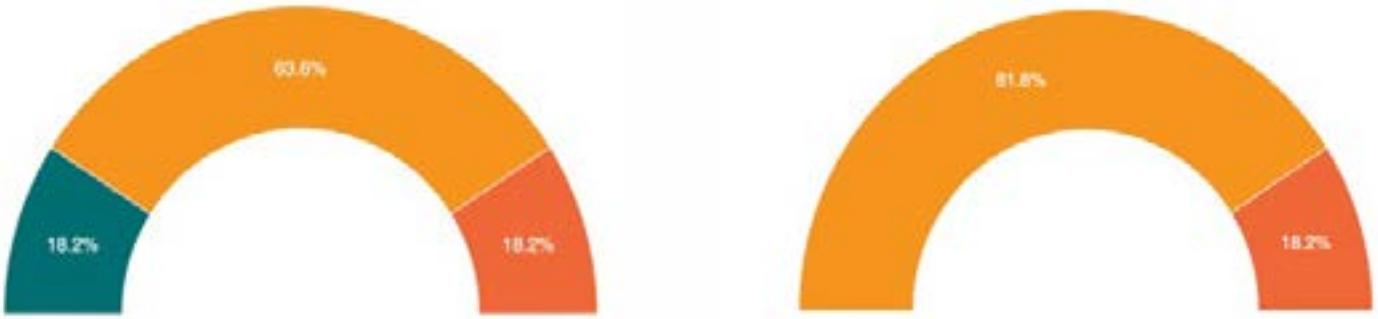


Figure 2.4

Increased interest in exploring careers

Figure 2.5

Not at all true *Not very true* *Pretty true* *Very true*

Teacher Feedback:

Seventy-five percent of teachers say the greatest benefit for students in using the Pathway2Careers curriculum is the career connections (Figure 3.1).

"The lessons are engaging since applications of the concepts being learned are connections in real life. **The problems are very challenging to students because it makes them think; however, it is fun because students are given insights of these useful concepts in connection to their chosen career."**

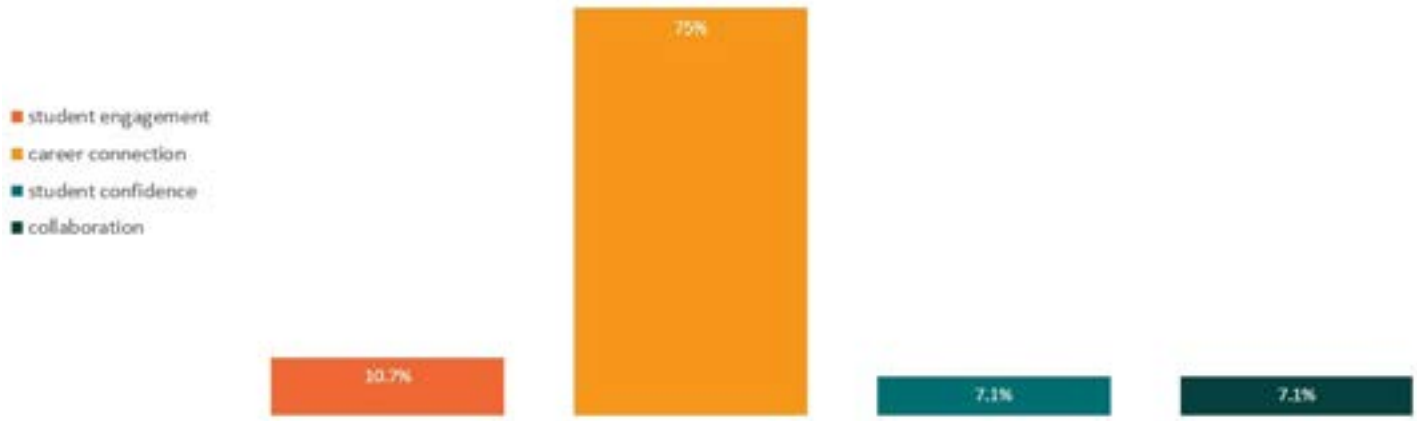
"The career spotlights really help my students. They are engaged and motivated to do their best in my class to be successful someday."

"I enjoy the lessons and the information given to the student in them. **The real-world aspect of these really hit home for so many of my students."**

"Overall, **the curricula are great, especially for those students who are less motivated with math.** Using this curriculum, they learn to appreciate math more."

"We used to tell them what they would use the math for, **now we show them what the math is for."**

Greatest Student Benefit



Summary of Key Findings

- Teachers used the P2C curriculum in a variety of math courses, including:
  - 6th - 8th-grade math
  - Pre-Algebra
  - Algebra I
  - Algebra II
  - Geometry
  - Financial Literacy
- **Ninety-six percent** of teachers **reported students were engaged** and seemed to enjoy the P2C math lessons.
- **Ninety-six percent** of teachers **reported the career content was interesting** and engaging for students.
- **Eighty-three percent** of teachers **reported an increased interest in career exploration** as a result of using the P2C curriculum.
- **Eighty-three percent** of teachers **reported an increased interest in learning math** while using the P2C curriculum.
- **Ninety-two percent** of teachers **observed an increase in math performance** in students due to using the P2C curriculum.
- With extended use of the P2C curriculum, interest ratings in math and career exploration increased from 82% and 91% to 100% and 100%, respectively.
- **Seventy-five percent of teachers say** the **greatest benefit** for students in using the P2C curricula **is the career connection.**

References

Alliance for Excellent Education (2018, September). Perkins career and technical primer: What's new? All4Ed.org

Comprehensive Local Needs Assessment Final Report (2020, April).

OUR COMMITMENT

Through our commitment to drive results, our partnerships have led us to building comprehensive career and college education solutions. We focus on solutions relevant to education practices and ensure a seamless approach to support career readiness efforts in schools everywhere. Our innovative approach focuses on delivering the best possible solutions to support long-term student success.

> *"I THINK IT'S A WONDERFUL OPPORTUNITY FOR STUDENTS TO SEE THEIR SCHOOL AS A HOLISTIC LEARNING ENVIRONMENT.*

Contact Us

200 East Broadway, Suite 215
Maryville, TN 37804

hello@ns4ed.com
www.ns4ed.com

NS4ed