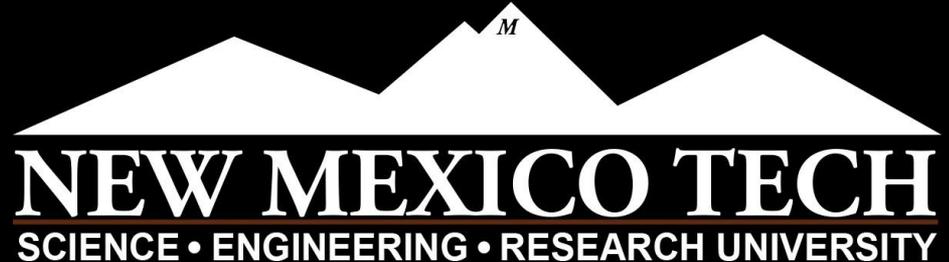


Recruiting Women into Engineering Careers

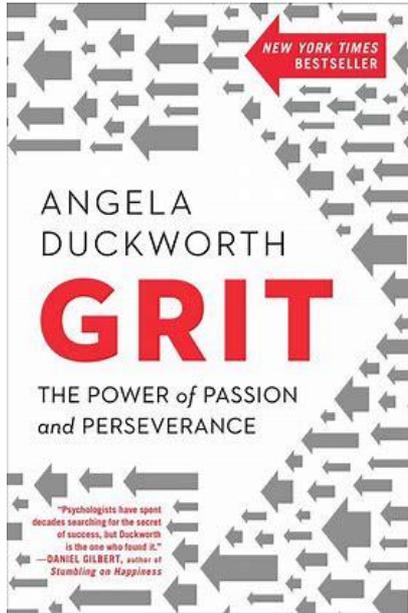
August 8, 2022 presentation to the New Mexico
Science, Technology, and Telecommunications Committee

Sharon Sessions, PhD
Director of STEM Outreach
Chair of Physics



- Why?
- What does it take?
- How do we support it?

What is one of the biggest predictors of success?



- **Passion** is the consistency of goals held over a long period of time
- **Perseverance** is the ability to overcome setbacks, put in hard work, and finish things you've started

Dr. Angela Duckwork

Professor of Psychology at the University of Pennsylvania

#1: Interest

Women first need to be exposed to engineering, and it must be fun



Fourth graders competing in FIRST Lego League competition in 2019

#2: Practice

Deliberate practice
leads to continuous
improvement



2022 New Mexico Science Olympiad competition

#3: Purpose

Women must believe
that their work
matters and
improves the lives of
others



New Mexico Tech student mentors third grader.

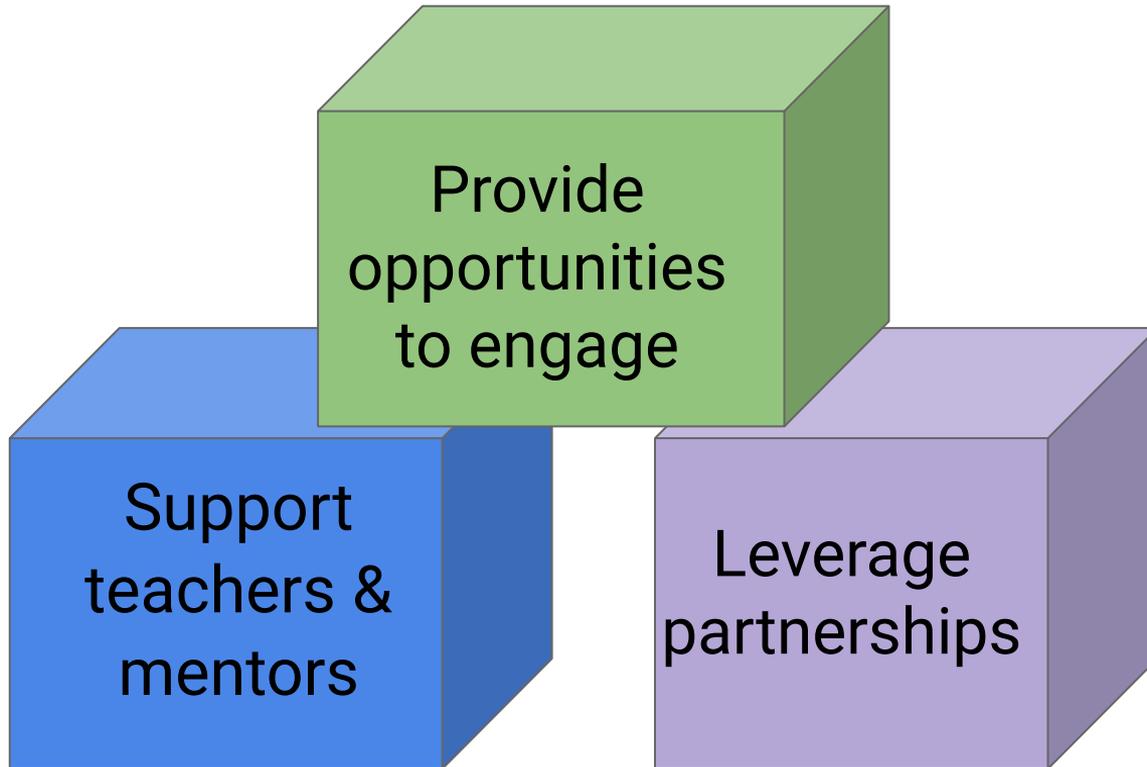
#4: Hope

Women must believe
in their capacity for
achievement and
their ability to
overcome difficulties

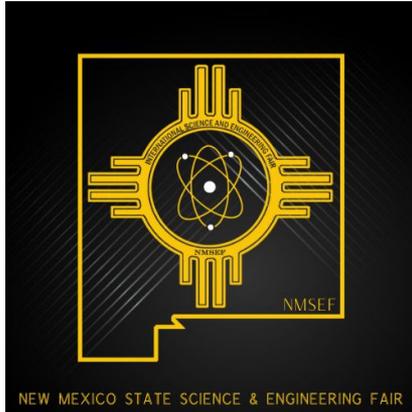
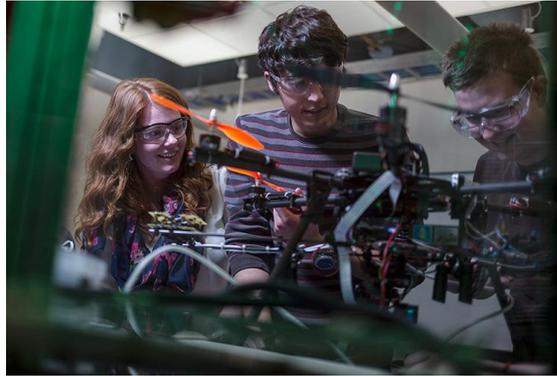


Navajo Tech Student, Malynndra Tome, was accepted into the Lamont Doherty Earth Observatory summer research program at Columbia University.

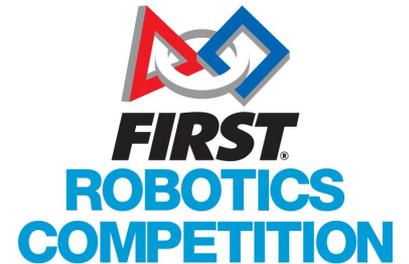
How can we support these elements?



Provide opportunities to cultivate GRIT



NMT's COMBAT
ROBOTS & TEAM
DRONE



2022 Statewide competitions



- 529 students
- 34 middle schools & 27 high school teams
- 85% growth from last year



- 138 projects, 163 students
- 8 students participated in the International Science & Engineering Fair

Support teachers and mentors



Mentoring is an excellent opportunity to recruit STEM teachers that inspire students.



Teacher education programs support teachers to be effective coaches.

Leverage partnerships



NMT Combat Robots program **grew from 3 to 40 teams** in their competition by partnering with New Mexico MESA.



- 3000 students
- 96 middle & high schools in 27 districts
- 120 MESA Advisors
- 51% female
- 78% minority
- 63% free & reduced lunch
- >300 MESA activities

Build new partnerships & opportunities



Navajo
Technical
University-
New Mexico
Tech
Navajo Nation
Water
Purification
Project



To recruit Women in Engineering Careers, build sustainable infrastructure to support STEM activities that cultivate GRIT

- Support expansion of existing and new STEM programs
- Coordinate activities and connect partners
- Provide resources to collect and analyze data that measure the impact of these activities on recruiting women in engineering