A Sprint Through FlexFactor

SINCLAIR
COMMUNITY COLLEGE

10 ESSENTIAL TOUCH POINTS

1 IDENTIFY A PROBLEM
- Career Readiness Workshop
- Kick Off
- Problem Identification Workshop

2 DEVELOP A PRODUCT
- Industry Engagement
- Product Development Workshop

3 CREATE A BUSINESS MODEL
- College Engagement
- Business Model Workshop
- Slide Deck Workshop

4 PITCH THE CONCEPT
- Final Rehearsal
- Final Pitch

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FLEXFACTOR

Inform, inspire, attract, & recruit the future of advanced manufacturing and STEM

1. Identify a real-world problem
2. Conceptualize an advanced hardware product to address the problem
3. Build a business model around the product
4. Pitch the product concept

Problem Categories

Health Monitoring
Human Performance
Medical/Global Health
Education
Sports
Defense/military
Agriculture
Structural Health

Transportation/Vehicles
Packaging/Distribution
Energy
Environment
Clean Water Access
Caregiving
Animal Welfare
Waste/Recycling

PICK ONE OF THE FOLLOWING PROBLEMS

- Transportation issues – “There are not enough charging stations for EV’s.”
- Elder care – “Memory issues can lead to the elderly either forgetting to take their medication or taking multiple doses.”
- Medical issues/care – “many people born with cerebral palsy have trouble walking without assistance.”
- Homelessness – “As of 2013, nearly 58,000 veterans had unstable housing.”
- Waste and Recycling – “Excessive plastic packaging is leading to too much plastic in landfills and the oceans.”
- Food allergies/food safety – “Many people suffer from Celiac’s Disease.”
- Agriculture – “Pesticide residue on food is bad for our health.”
- Bullying – “Bullying is a serious problem for young people.”

CONCEPTUALIZE A PRODUCT TO PREVENT, MITIGATE OR SOLVE THE PROBLEM

- Technology concept does not need to currently exist, but is it feasible?
- Who does it affect and what is the size of your market?
- Include key components of a functional electronic device:
  - A sensor
  - A processor
  - Principal task or action
  - Data Communication
  - Power Source

CREATE A BUSINESS MODEL

Please use handout

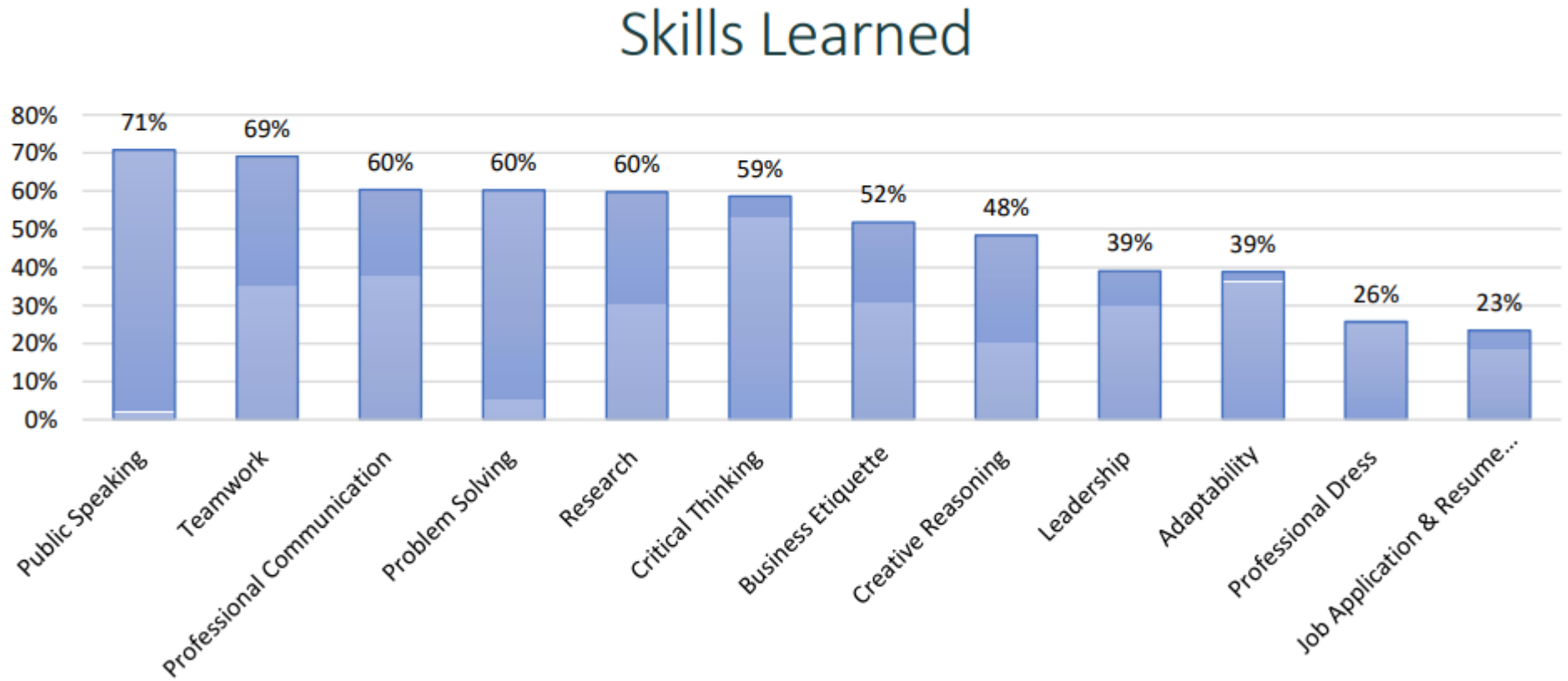
Directions for the handout, page 3:

- **1: cost of materials = component costs from handout, pg.2**
- **2: cost of one item = #1 x 2 (add: 50% labor & 50% distribution)**
- **3: 10% of your market size**
- **4: #3 x # 2 = Total Cost**
- **5: # 2 x 1.5 (50% markup) = Selling Price**
- **6: #5 x #3 = Revenue**
- **7: #6 - #4 = Profit**

PITCH YOUR IDEA TO THE GROUP

- **What is the problem?**
- **How many people does it affect?**
- **What is your product?**
- **What is the cost and profit?**

Sinclair FlexFactor Dashboard



FlexFactor
Sinclair Dashboard

NEXTFLEX® LEARNING PROGRAMS

Career Interests	% of Students
Advanced Manufacturing	22%
Business & Entrepreneurship	36%
STEM & Technology	33%

Student Experience

82%

Percent of students who are more aware of the range of career opportunities in STEM and Advanced Manufacturing than before FlexFactor.

62%

Percent of students who are more interested in a STEM, Business/Entrepreneurship, or Advanced Manufacturing-related career than they were before FlexFactor.

36%

Percent of students who are more likely to attend the ecosystem lead college after participating in the FlexFactor program.

81%

Percent of students who, after the FlexFactor program, have a better understanding of the educational pathways that lead to careers in STEM, Business/Entrepreneurship, and/or Advanced Manufacturing.

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