

A DEVELOPMENTAL APPROACH TO A SUMMER RESEARCH PROGRAM FOR COMMUNITY COLLEGE STUDENTS

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**BACCALAUREATE
& BEYOND CENTER**



BRIDGES TO THE BACCALAUREATE PROGRAM

- ⊙ Located at Purchase College
- ⊙ Community College Students
 - ⊙ URM
 - ⊙ Low Income
 - ⊙ First-Generation
- ⊙ Objective is Degree Completion
- ⊙ Very Successful!

DEVELOPMENTAL APPROACH

⊙ Emphasizing Developmental Trajectory

- ⊙ Identify students' starting place and develop practices to support development
- ⊙ Assess change over time in individual students
- ⊙ ePortfolios document change over time and invite reflection

⊙ Holistic

- ⊙ Goals are academic, but emotional and social developments are critical for success
- ⊙ Help students draw connections between success in different domains



DEVELOPMENTALLY APPROPRIATE PRACTICES

- ⊙ Students are in the exploration stage
 - ⊙ Admit students broadly and provide activities to broaden knowledge of possible paths
- ⊙ Students lack positive academic identity
 - ⊙ Proactive instructions and skill development
 - ⊙ Identity activities, mindset and grit interventions embedded in ePortfolios
- ⊙ Primary attachment to home community
 - ⊙ Bridging between home and academic worlds
 - ⊙ Making faculty “human”
 - ⊙ Community building with student scientists
 - ⊙ Affirmations intervention



THE PROMISE OF EPORTFOLIOS

⦿ Social pedagogy, High Impact Practice, Developmental

Antimicrobial Peptides 101: A Window to Our Research



A Normal Week vs An Awesome Week

A normal week in my student life starts by waking up early, commuting half an hour to Dutchess Community College, working a couple of hours in the Math and Science Center, attending my respective classes for

I am...

The hardest question you can ask yourself is... *Who am I?*

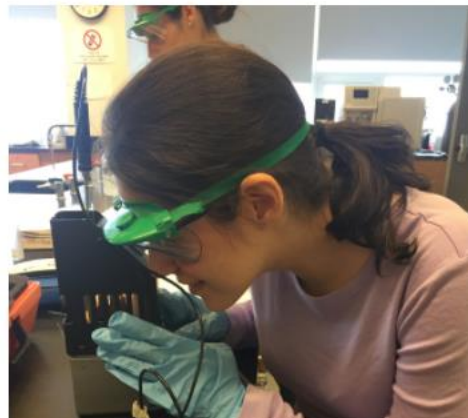
First of all, I am **Ecuadorian**...

I am a constant **learner**...

I am **an easy adapter** of circumstances...

I am **friendly** with everyone...

And finally, I am a **chemistry lover** (and I have a picture to prove it!).



Doing Homework is the Best!



Enjoying life when math homework only had numbers.

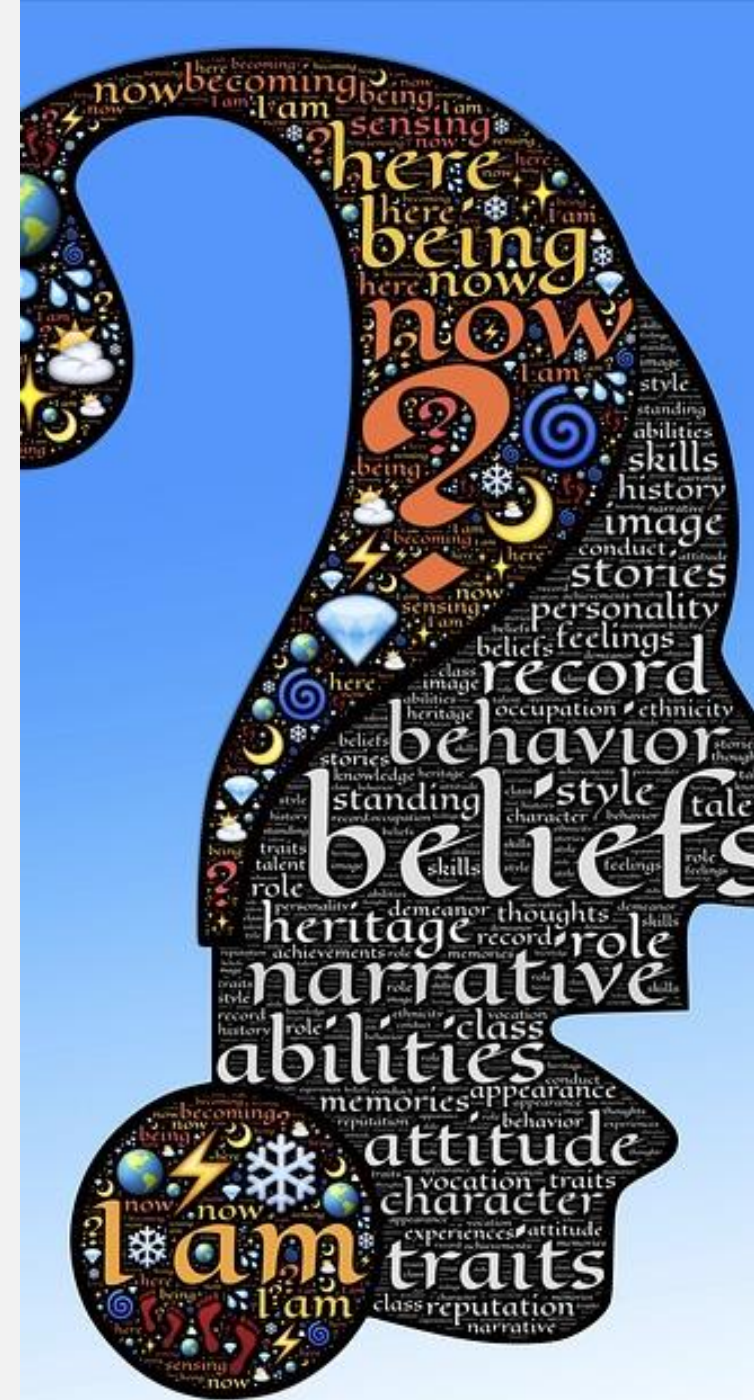
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My Mind in a Nutshell



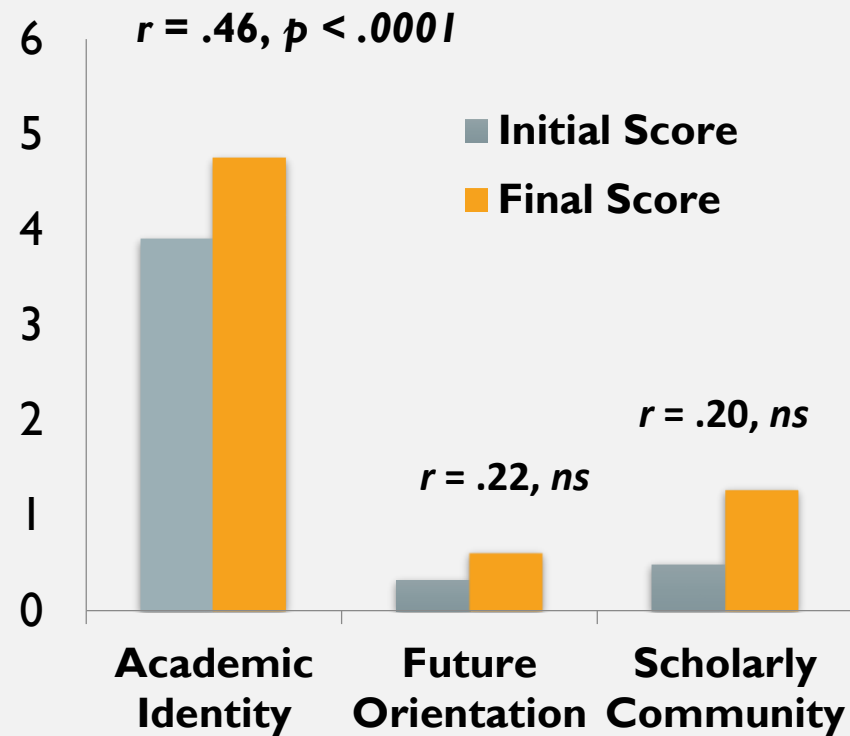
OUTCOMES

- ⊙ Persistence
 - ⊙ No differences in GPA
 - ⊙ Program alumni
 - ⊙ more likely to re-take classes
 - ⊙ more likely to graduate in STEM
- ⊙ Identity Outcomes
 - ⊙ Academic Identity
 - ⊙ Future Orientation
 - ⊙ Scholarly Community
 - ⊙ Growth Mindset
 - ⊙ Grit



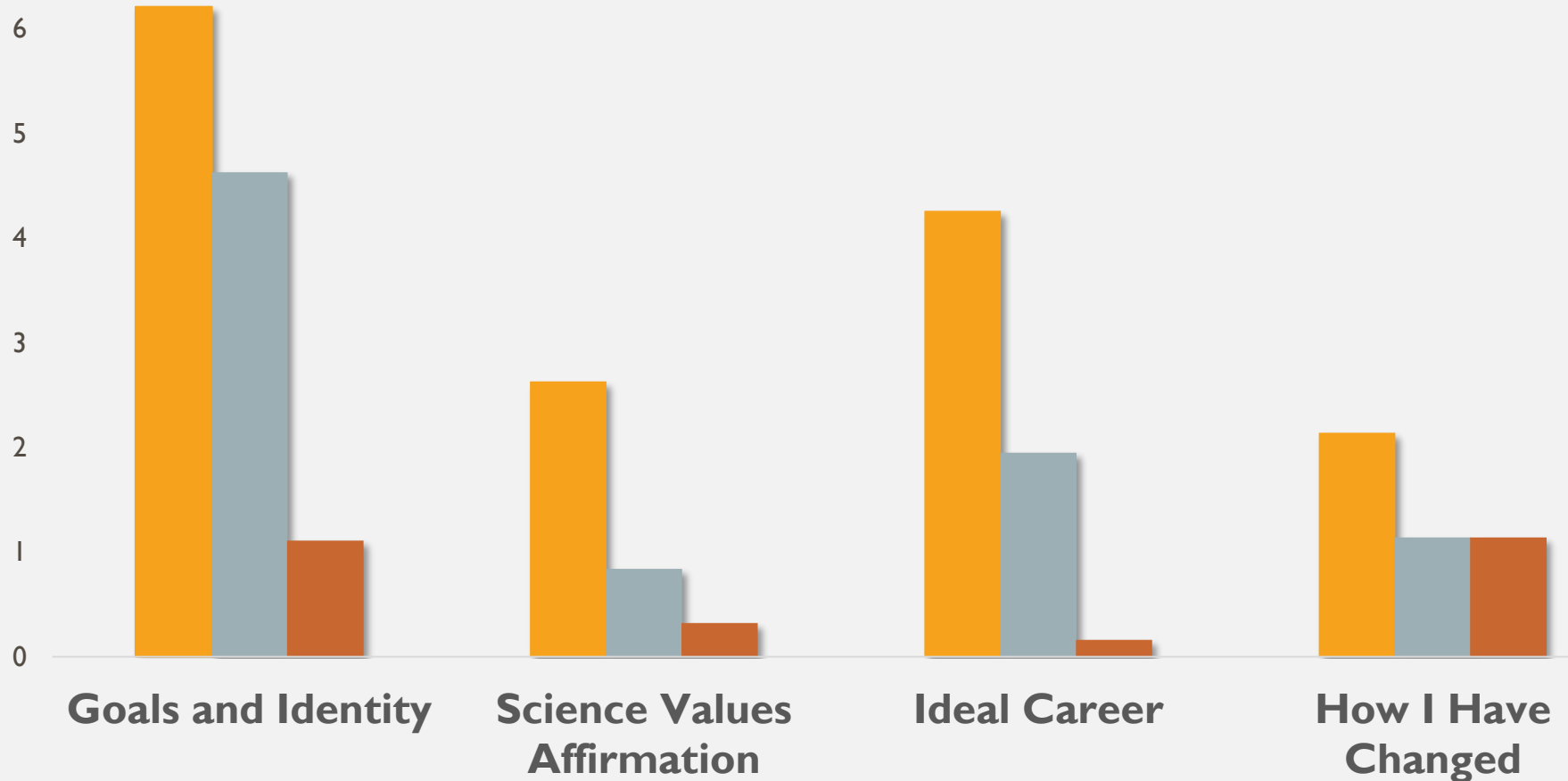
EVIDENCE OF IDENTITY SHIFT

- ⊙ ePortfolio journal entries
- ⊙ Significant increase between first and final week in:
 - ⊙ Academic Identity
 - ⊙ Future Orientation
 - ⊙ Scholarly Community
- ⊙ Early expressions of academic identity predicted later expressions



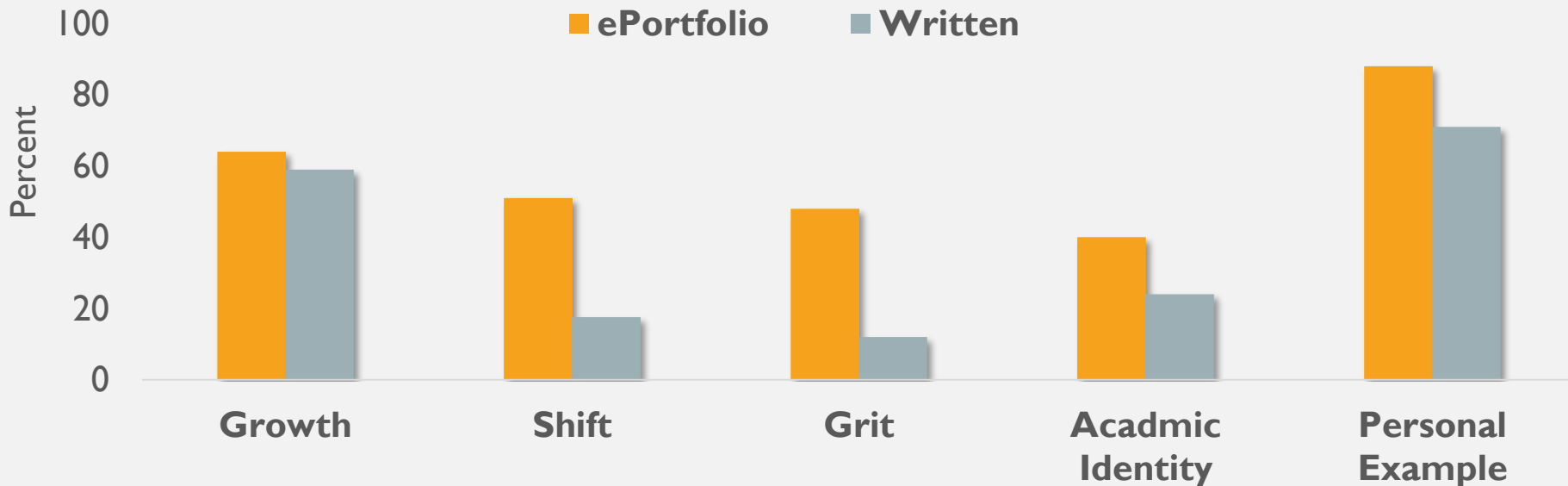
PROMPTS EVOKE IDENTITY STATEMENTS

■ Academic Identity ■ Future Orientation ■ Scholarly Community



EPORTFOLIOS INCREASE IDENTITY EXPRESSION

- ⊙ Comparing Mindset intervention in ePortfolios to worksheet
- ⊙ In ePortfolios more students
 - ⊙ Describe shifting mindset, Grit, and Academic Identity
 - ⊙ Provide a personal example



CONCLUSIONS

- ⊙ Programs for first and second-year students should consider:
 - ⊙ Need for exploration
 - ⊙ Academic identity
 - ⊙ Primary community
- ⊙ ePortfolio use can be a powerful tool for developmental approach

The screenshot displays an ePortfolio interface with four main sections:

- Goals** (blue header):
 - Goals**
 - The Summer: Graduate with my Associate's Degree
 - Next Couple of Years: Finish a Bachelor's Degree and work towards Ph.D/M.D
 - In Ten Years: Finish my education and hold a full-time job
- Me!** (orange header):
 - A portrait of a young woman with long dark hair and red glasses, wearing a patterned blue and orange top.
- I am** (purple header):
 - I am**
 - I am Inquisitive
 - I am Loyal
 - I am Logical
 - I am Stubborn
 - I am Dedicated
- Fixed vs Growth** (red header):
 - An image of a tree with one side in winter (bare, cold) and the other in spring (leafy, green).
 - The difference between a Growth mindset and a Fixed mindset. Like the two sides of the same coin, we can draw a parallel. A Fixed Mindset is much like winter: cold, dead, dormant, lifeless. A Growth mindset is like spring: abundant, bright, warm, full of
- Growing** (blue header):
 - An image of a small tree growing out of an open book.

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