



# **ePortfolios Create Better Students: Similar Students Reflect More in ePortfolios**

We describe the ePortfolio delivery of a growth mindset intervention to at-risk college students, comparing responses to graded and ungraded ePortfolio, handwritten, and typed response formats by examining conceptual mastery, application of concepts to self, and overall level of response.



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# BRIEF PSYCHOSOCIAL INTERVENTIONS

Brief activities that change world views

## ■ Sense of Belonging

- Convincing students that feelings of isolation are temporary improves URM academic success and retention

## ■ Values Affirmation

- Reflecting on values improves academic performance

## ■ Growth Mindset

- Viewing intelligence as malleable leads to increased persistence
- Associated with grit

# THE PROMISE OF ePORTFOLIOS

- Reflection, identity, and creativity
- Ease of delivery
- Bundling interventions
- Strengthen and lengthen effects

GRIT - ASSIGNMENT 9

Angela Lee Duckworth: The key to success? Grit

Describe Grit:

\* TextArea

Grit is "passion and perseverance for long term goals"; but more so, it's courage to see the unforeseeable through. There is a tremendous amount of strength inclusive of grit that will

Assessment Panel

\* Rubric 20/20 100.00%

| Item  | L1 | L2 | L3 | L4 | L5 |
|-------|----|----|----|----|----|
| Item1 | ✓  | ✓  | ✓  | ✓  | ✓  |
| Item2 | ✓  | ✓  | ✓  | ✓  | ✓  |
| Item3 | ✓  | ✓  | ✓  | ✓  | ✓  |
| Item4 | ✓  | ✓  | ✓  | ✓  | ✓  |
| Item5 | ✓  | ✓  | ✓  | ✓  | ✓  |

\* Scoring

100 %

\* Rubric 2/6 33.33%

| Item  | L1 | L2 |
|-------|----|----|
| Item1 | ✓  | ✓  |
| Item2 | ✓  | ✓  |
| Item3 | ✓  | ✓  |
| Item4 | ✓  | ✓  |
| Item5 | ✓  | ✓  |

Comments List

Comment 1

Congratulations! And glad you have grit back into running in the last couple of weeks! -Gemma

GROWTH MINDSET - ASSIGNMENT 8

growth mindset

how can I learn?

effort makes me smart

ing children with something contingent makes them afraid of failure and choose to do the easy task in order to not be seen as smart,

ing children with words, telling them they did a good job or recognizing their hard work, encourage them to challenge themselves and to choose harder tasks,

ect on your own life: Do you believe you generally view intelligence as fixed? Describe some of your reactions to academic setbacks. Assess the extent to which these reactions are employing a "fixed mindset voice." Propose some responses you could that would help you to establish a growth mindset. If you prefer you can answer this question thinking about someone you well rather than yourself.

\* Rubric 20/20 100.00%

| Item  | L1 | L2 | L3 | L4 | L5 |
|-------|----|----|----|----|----|
| Item1 | ✓  | ✓  | ✓  | ✓  | ✓  |
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| Item4 | ✓  | ✓  | ✓  | ✓  | ✓  |
| Item5 | ✓  | ✓  | ✓  | ✓  | ✓  |

\* Scoring

100 points

Rubric 20/20 100.00%

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| Item4 | ✓  | ✓  | ✓  | ✓  | ✓  |
| Item5 | ✓  | ✓  | ✓  | ✓  | ✓  |

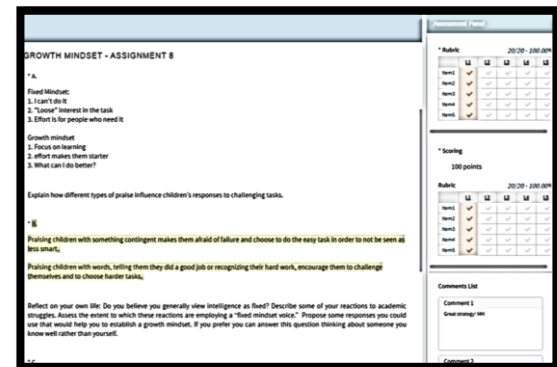
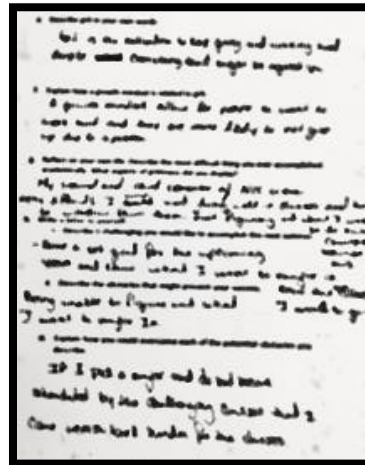
Comments List

Comment 1

Great strategy!!!

# EVALUATING THE PROMISE

- Similar assignments
- Similar students
- Different delivery
- Different feedback
- Mindset Scale
- Grit Scale

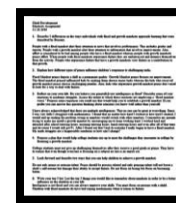
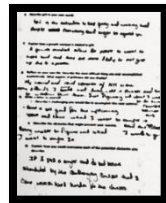


# HYPOTHESES

- Typing will evoke more content than hand writing
- Graded assignments will evoke more content than ungraded assignments
- ePortfolios will evoke more reflection than other formats

# COMPARISON GROUPS

|             | Summer Program<br>Ungraded |            | Academic Classes<br>Graded |            |
|-------------|----------------------------|------------|----------------------------|------------|
|             | Worksheet                  | ePortfolio | Paper                      | ePortfolio |
| Sample Size | 17                         | 21         | 54                         | 56         |
| Age         | 20.7                       | 20.5       | 18.8                       | 18.8       |
| Females     | 59%                        | 67%        | 70%                        | 91%        |
| URM         | 82%                        | 90%        | 52%                        | 50%        |
| GPA         | 3.37                       | 3.35       | 3.11                       | 3.04       |



# MINDSET INSTRUCTIONS



- Watch Eduardo Briceño TED talk <https://www.youtube.com/watch?v=pN34FNbOKXc>
- Describe differences in how individuals with fixed and growth mindsets approach learning (**conceptual information**)
- Do you view intelligence as fixed? (**reflection**)
  - Describe your reactions to an academic struggle
  - Propose responses that would establish a growth mindset
- Propose ways to help foster growth mindsets (**planning**)

# CONTENT CODING

- Number of words produced
  - Concepts
  - Reflection
  - Planning
- Qualitative Ratings
  - Complete content
  - Mindset
  - Grit



# QUALITATIVE CODING

## ■ Mindset

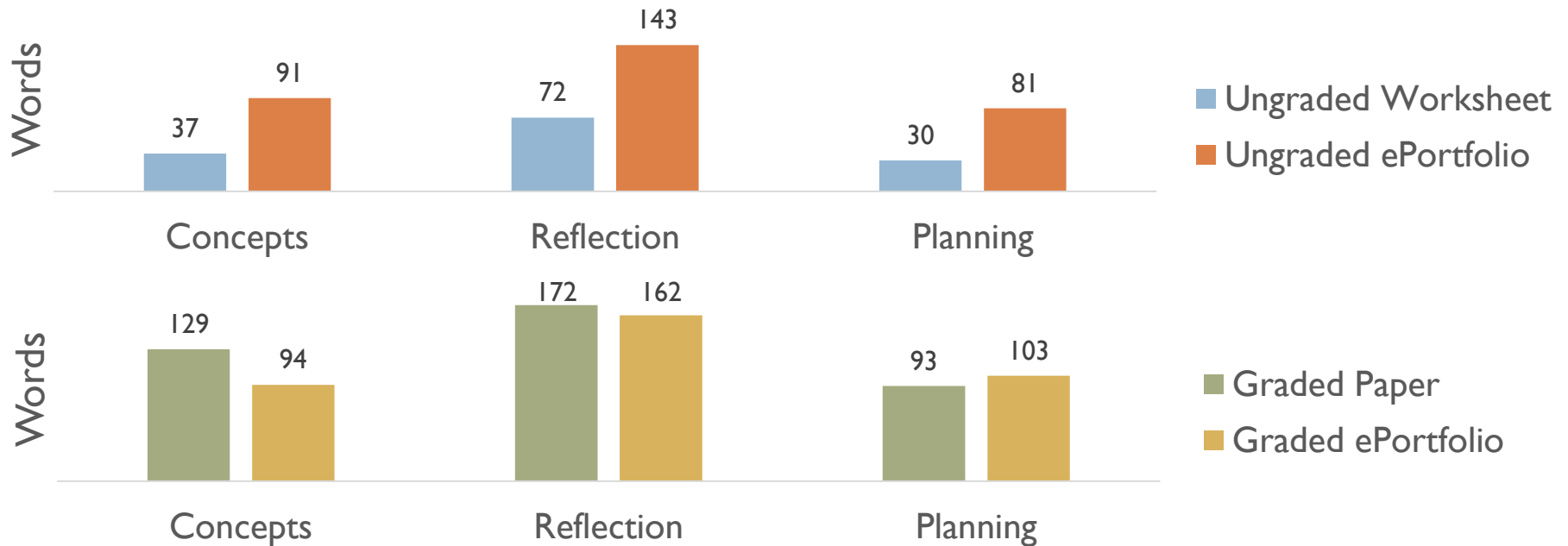
- **Growth** - I hate the word smart because once you call someone that, they don't plan to go beyond that... We learn something new everyday and that is what makes us grow.
- **Fixed** - Honestly and sadly I see intelligence as fixed. An academic struggle I have had is learning US History and I always let myself think that I wasn't made for USH.
- **Shifting** - I used to see intelligence as fixed but lately I've been noticing that anyone has the potential to be great if they put their mind to it.

## ■ Grit

- I do well when I work hard. If I don't do well right away, I keep trying until I'm satisfied.

# RESULTS – WORD COUNTS

- More reflection than concepts or planning
- Less content in worksheets
- More conceptual content in papers
- ePortfolios evoke similar responses regardless of grading

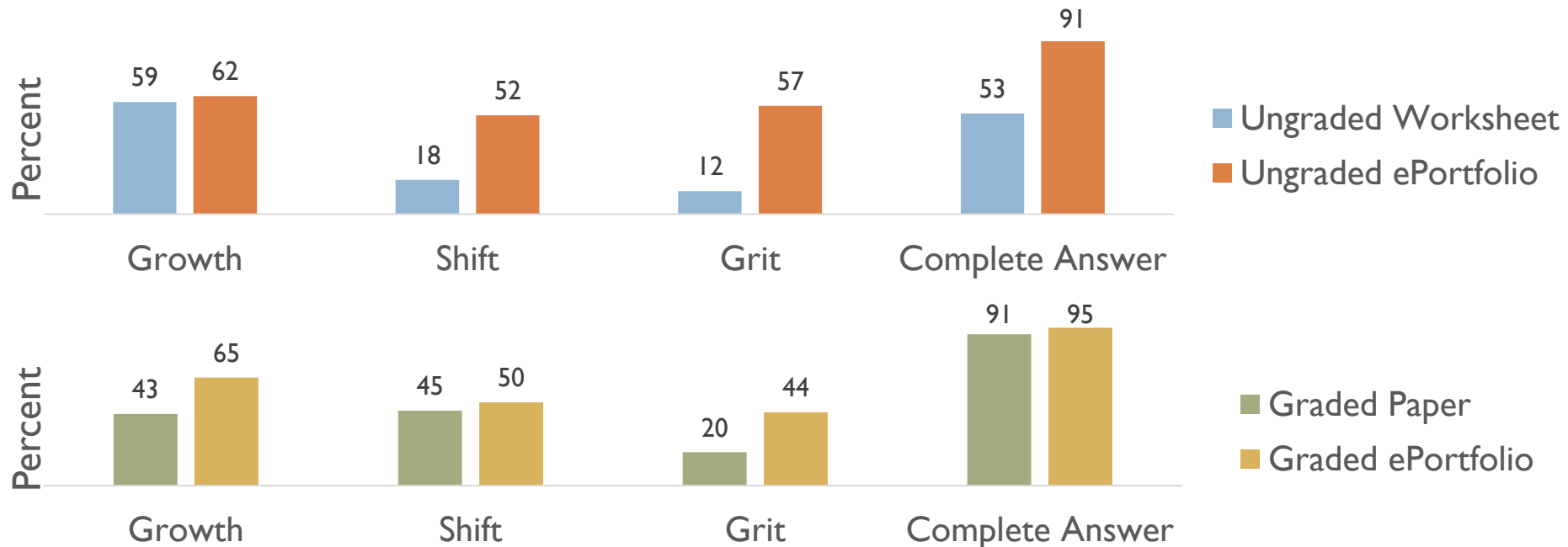


# QUALITATIVE CONTENT

In ePortfolios more students applied constructs to the self

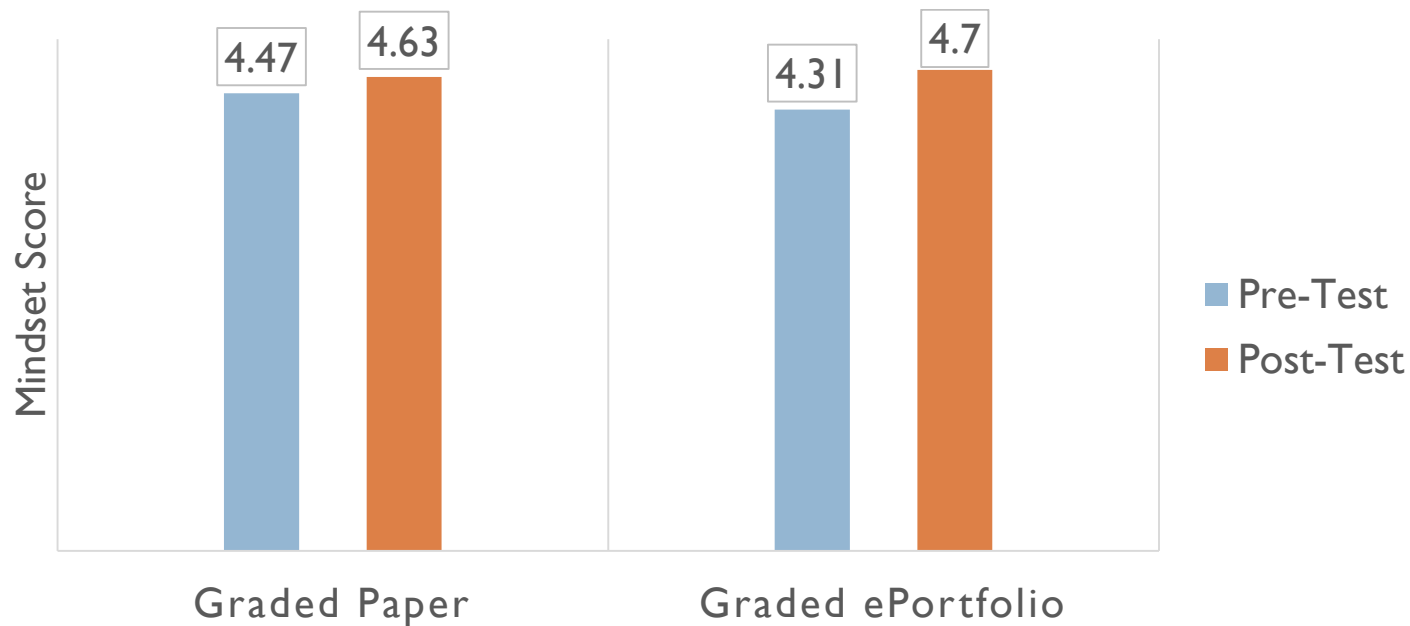
- Shifting (ungraded)
- Growth (graded)
- Grit (graded and ungraded)

In worksheets students were less likely to provide complete answers



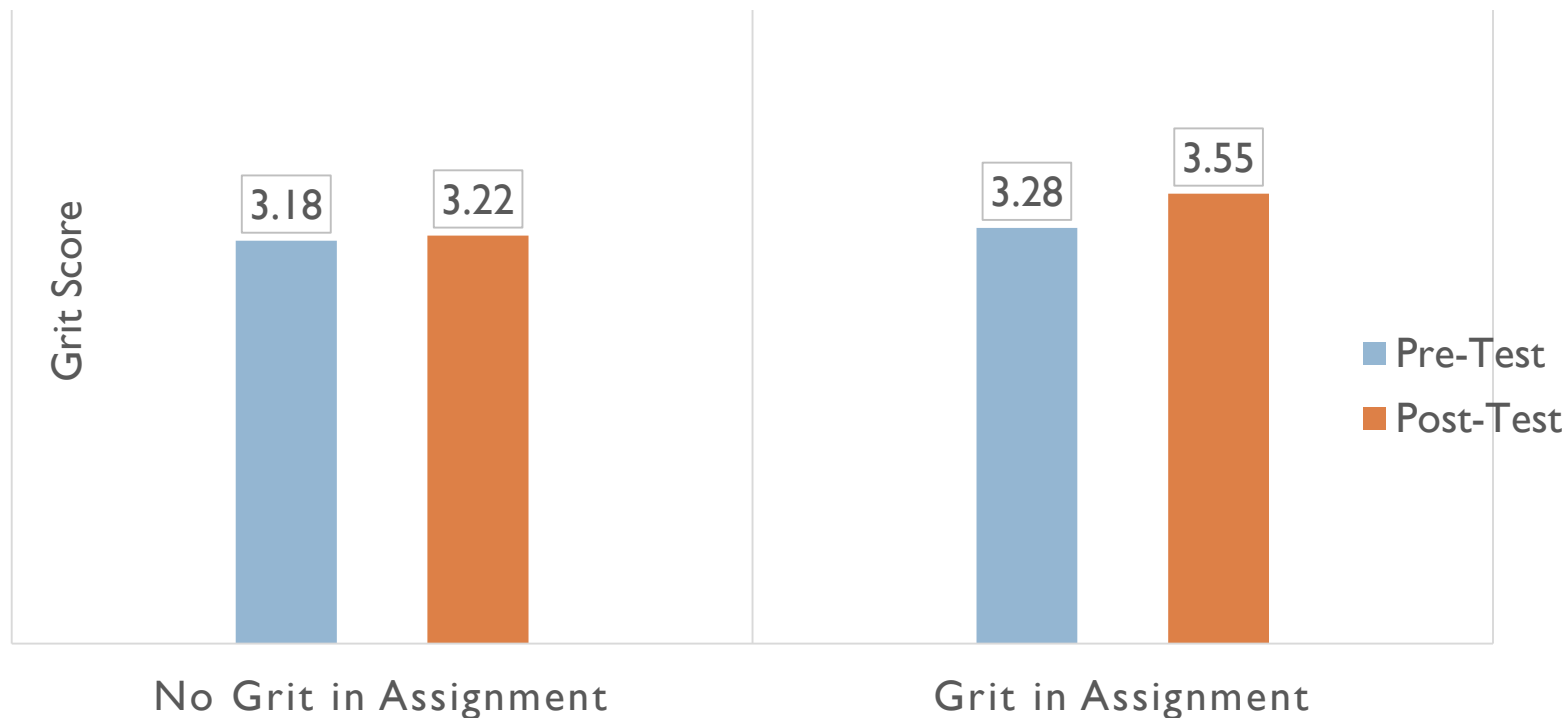
# INTERVENTION EFFECTS – GRADED ASSIGNMENTS

- Intervention increased endorsements of growth mindset
- Assignment format did not influence intervention efficacy



# INTERVENTION EFFECTS – GRADED ASSIGNMENTS

- 68 did not write about grit - No change in grit scores
- 33 wrote about grit - Grit scores increased



# STUDENT FEEDBACK

- Responded positively to all assignment formats
  - Majority reported assignments were worthwhile, enjoyable and should be used in the future
- Reported personal change as a result of the interventions
- Adopted language indicative of effect
  - I'm gritty
  - I can't do this...YET

# CONCLUSIONS

- ePortfolios are better or equal to other formats
  - Reflection and application of concepts to the self
  - Grades didn't matter
  - Complete answers
    - Papers evoked more words but not more complete answers
- Intervention efficacy was present in all formats
- Next Steps
  - Determine whether ePortfolio delivery leads to sustained intervention effects

# THANKS

- LiveText
- Jada Cheek, Genesis Gonzalez, Morgan Hems, Alexa Lamarca, and JeanMarie Garofolo
- Students from Bridges to the Baccalaureate Summer Program
- Students in Child Development



## REFERENCES

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# GRIT INSTRUCTIONS



- Summer Program – ePortfolio or worksheet
- Academic Year - ePortfolio
  - Watch Angela Duckworth TED talk  
<https://www.youtube.com/watch?v=Hl4bBuluwB8>
  - Describe grit
  - Explain how a growth mindset is related to grit
  - Describe the most difficult thing you accomplished
  - Write a letter to your future self:
    - Describe a challenge you would like to accomplish
    - Describe some obstacles that might prevent success
    - Explain how you could overcome these obstacles