

# *Do High Achieving Students Benefit from Honors College Participation?*

## A Look at Student Engagement for First-Year Students and Seniors

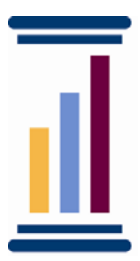
Angie L. Miller, Ph.D.

Indiana University Bloomington

Amber D. Dumford, Ph.D.

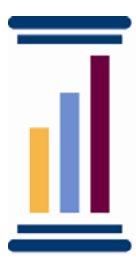
University of South Florida





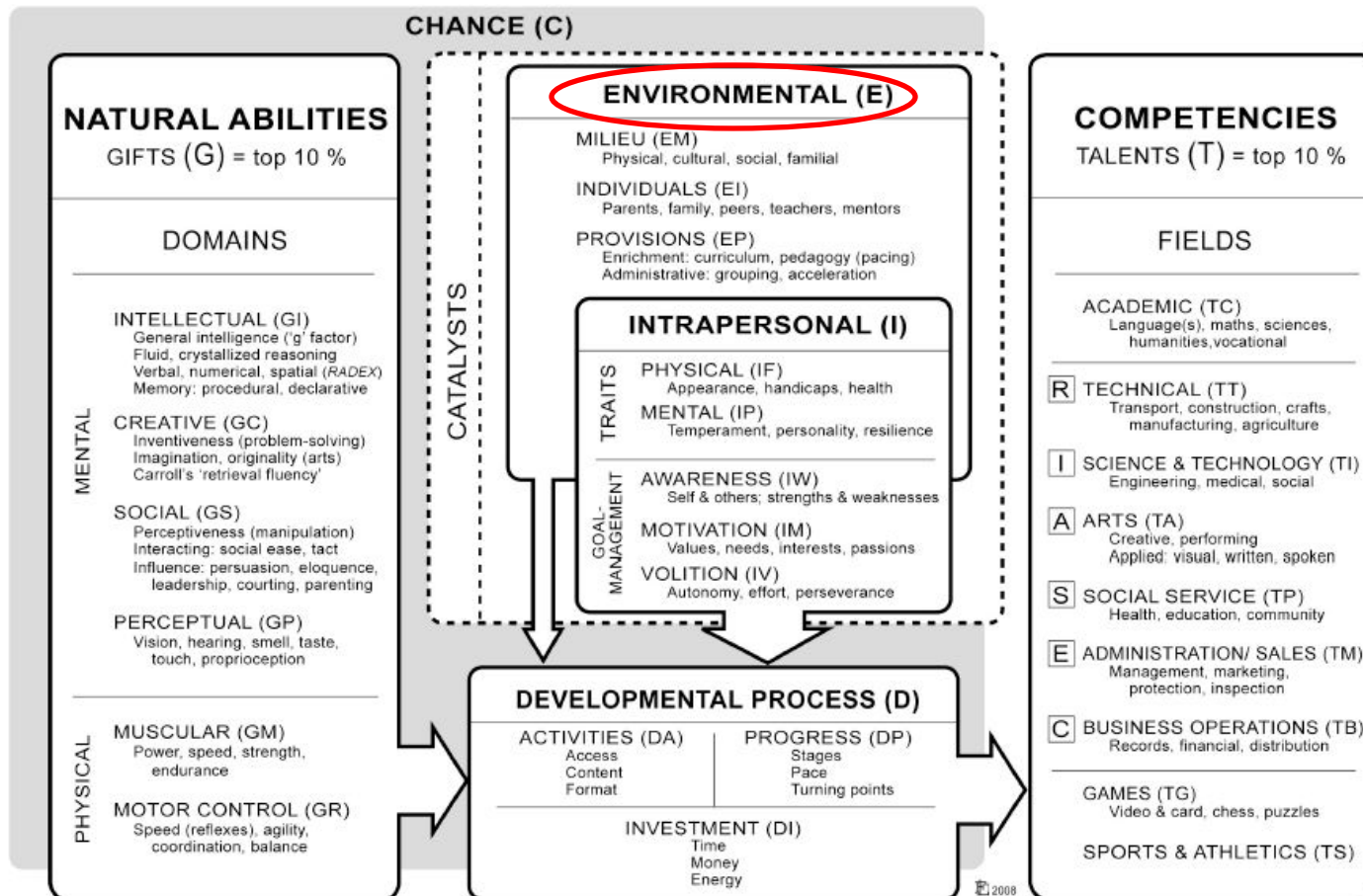
# INTRODUCTION

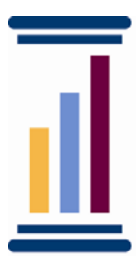
- Many models in gifted education that address origins, development, and functioning include an **environmental** component
- Important to look at role of “nurture”
- Also important to look at the effectiveness of these models across all ages



# INTRODUCTION

## DMGT (Gagné, 2009)





# INTRODUCTION

## Star Model (Tannenbaum, 2003)

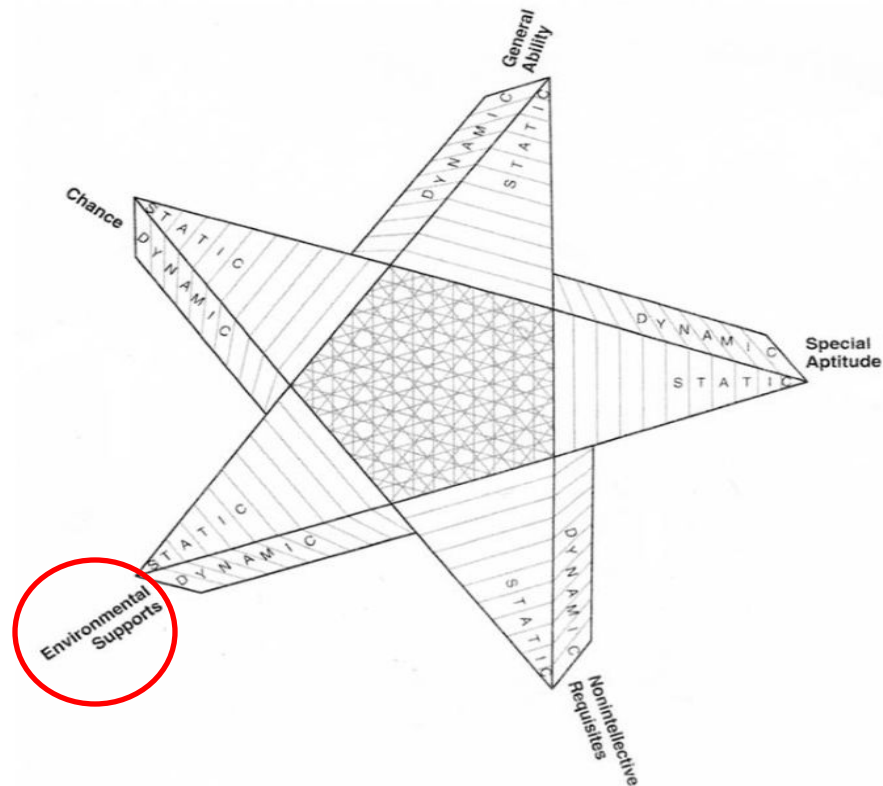
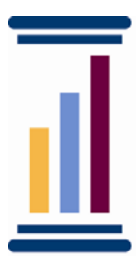


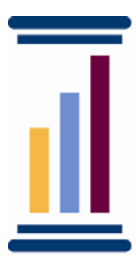
Figure 1.2. The Five Factors That “Mesh” Into Excellence

*Note.* From “Nature and Nurture of Giftedness” (p. 47), by A. Tannenbaum, in *Handbook of Gifted Education* (3rd ed.), N. Colangelo & G. A. Davis (Eds.), 2003, Boston: Pearson Education. Copyright ©2003 by Pearson Education. Reprinted with permission.



# HONORS COLLEGES

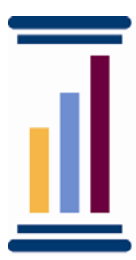
- Many variations in organization and implementation
  - Admissions criteria, starting status, curricular requirements, living options
- Basic common components in majority of Honors Colleges/programs:
  - Special versions of gen. ed. courses, small class size, advanced courses (colloquia, seminars)
- Many also feature:
  - Interdisciplinary courses; choice of major; final thesis, capstone, creative project; special residence halls or study rooms



# STUDENT ENGAGEMENT

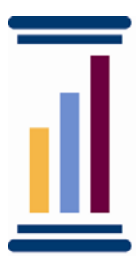
## National Survey of Student Engagement (NSSE)

- NSSE gives a snapshot of college student experiences in and outside of the classroom by surveying **first-year** and **senior** students
- NSSE items represent good practices related to desirable college outcomes
- Indirect, process measures of student learning and development



# NSSE ENGAGEMENT INDICATORS

- Higher-Order Learning
- Reflective & Integrative Learning
- Learning Strategies
- Quantitative Reasoning
- Collaborative Learning
- Discussions with Diverse Others
- Student-Faculty Interaction
- Effective Teaching Practices
- Quality of Interactions
- Supportive Environment

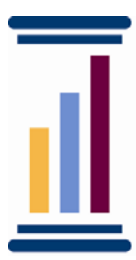


# PURPOSE

This study extends research on the importance of specialized programming and curriculum for gifted individuals to those at the college level

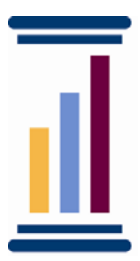
- Are students who participate in Honors Colleges/programs higher on a variety of aspects of engagement, even after controlling for other demographic and institutional characteristics?





# DATA SOURCE

- National Survey of Student Engagement (NSSE)
- In 2015, more than 300,000 first-year and senior respondents from 541 four-year colleges and universities
- Reasons for participation vary:
  - National and regional accreditation
  - Departmental/program reviews
  - Curricular reform (general education)
  - Institutional improvement efforts (e.g., retention rates, high-impact practices, FYE programming)



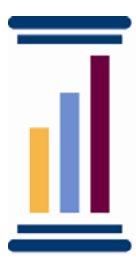
# SAMPLE

## Limited to:

- 15 four-year institutions
- First-year and senior students (n=8,530)
- Experimental item set with additional demographic items appended to core survey

|                         | Valid % |
|-------------------------|---------|
| First-generation        | 47%     |
| Traditionally-aged      | 80%     |
| Female                  | 60%     |
| <b>Race/ethnicity</b>   |         |
| Asian, Asian American   | 7%      |
| Black, African American | 12%     |
| Latino, Hispanic        | 13%     |
| White                   | 55%     |

|                      | # of institutions |
|----------------------|-------------------|
| Private              | 8                 |
| <b>Size</b>          |                   |
| <2,500               | 4                 |
| 2,500-4,999          | 2                 |
| 5,000-9,999          | 3                 |
| >10,000              | 5                 |
| <b>Carnegie type</b> |                   |
| Research/Doc         | 7                 |
| Master's             | 5                 |
| Bac. colleges        | 3                 |



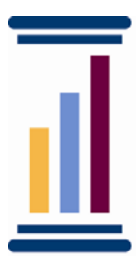
# HONORS COLLEGE ITEM

**Are you currently in an honors program or honors college at your institution?\***

- **No**
- **Yes**
- **Not applicable, to my knowledge my institution does not have an honors program or college\*\***

\*Those who responded “Yes” were recoded to create a dichotomous “Honors participant” flag (16% of respondents)

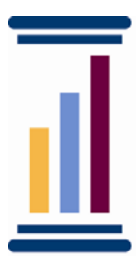
\*\*Schools with high percentages of “not applicable” were researched to verify existence of Honors programs, and dropped if no evidence was found



# METHODS

## OLS regression models (20 total)

- Each of 10 Engagement Indicators as DV
- Separate models for FY and SR
- Controlling for student and institutional characteristics known to relate to student engagement
- All categorical variables were dummy-coded
- Honors College variable was entered as second step of model to examine unique variance
- Multicollinearity check: all VIF values below 3



# OLS Independent Variables

## Student demographics

First-generation

Age

Gender

Race/Ethnicity

ACT/SAT score

## College experiences

Enrollment status

Took all courses online

Major field

College grades

Transfer student

## Institutional context

Control

Institution size

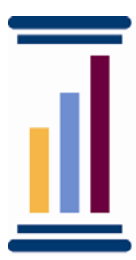
**\*Honors College participation**



# RESULTS: FIRST-YEAR MODELS

| DV Engagement Indicator           | First-Year          |              |         |
|-----------------------------------|---------------------|--------------|---------|
|                                   | Adj. R <sup>2</sup> | $\Delta R^2$ | $\beta$ |
| Higher-Order Learning             | .037***             | .001         | .030    |
| Reflective & Integrative Learning | .037***             | .005***      | .074*** |
| Quantitative Reasoning            | .050***             | <.001        | .020    |
| Learning Strategies               | .066***             | .003**       | .057**  |
| Collaborative Learning            | .031***             | .002**       | .052**  |
| Discussions with Diverse Others   | .035***             | .002*        | .044*   |
| Student-Faculty Interaction       | .068***             | .007***      | .090*** |
| Effective Teaching Practices      | .032***             | <.001        | .017    |
| Quality of Interactions           | .042***             | .001         | .026    |
| Supportive Environment            | .017***             | <.001        | .006    |

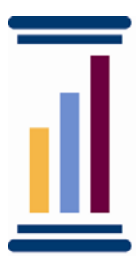
\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$



# RESULTS: SENIOR MODELS

| Seniors                           |                     |              |         |
|-----------------------------------|---------------------|--------------|---------|
| DV Engagement Indicator           | Adj. R <sup>2</sup> | $\Delta R^2$ | $\beta$ |
| Higher-Order Learning             | .037***             | <.001        | -.017   |
| Reflective & Integrative Learning | .092***             | <.001        | .007    |
| Quantitative Reasoning            | .106***             | <.001        | .014    |
| Learning Strategies               | .046***             | <.001        | -.007   |
| Collaborative Learning            | .097***             | <.001        | -.009   |
| Discussions with Diverse Others   | .020***             | <.001        | .020    |
| Student-Faculty Interaction       | .108***             | .003**       | .059**  |
| Effective Teaching Practices      | .047***             | <.001        | -.020   |
| Quality of Interactions           | .036***             | <.001        | .007    |
| Supportive Environment            | .039***             | <.001        | -.002   |

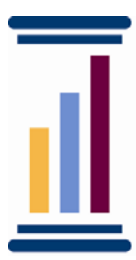
\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$



# DISCUSSION

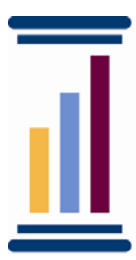
- Honors College participation was a positive predictor of several aspects of student engagement for first-year students:
  - Reflective and integrative learning
  - Use of learning strategies
  - Collaborative learning
  - Diverse discussions
  - Student-faculty interaction
- For seniors, however, Honors College participation only predicted student-faculty interaction





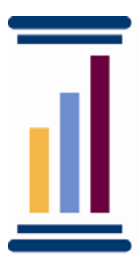
# DISCUSSION

- Potential reasons for class-level differences in patterns of results:
  - More lower-division honors courses, seniors may be more focused on (non-honors) major requirements
  - Smaller class sizes for all seniors, not just those in Honors
  - Senior thesis/capstone requirement still means more student-faculty interaction



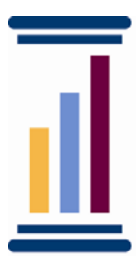
# DISCUSSION

- So is Honors College participation “worth it” for students?
- Probably depends on goals
  - Acceleration vs. enrichment experiences
  - Importance of the “community” of high ability learners (college version of self-contained classroom)
- If applying to colleges, learn more about specific aspects of Honors participation (not just whether they have one)
- Might get similar experiences from smaller, selective private school



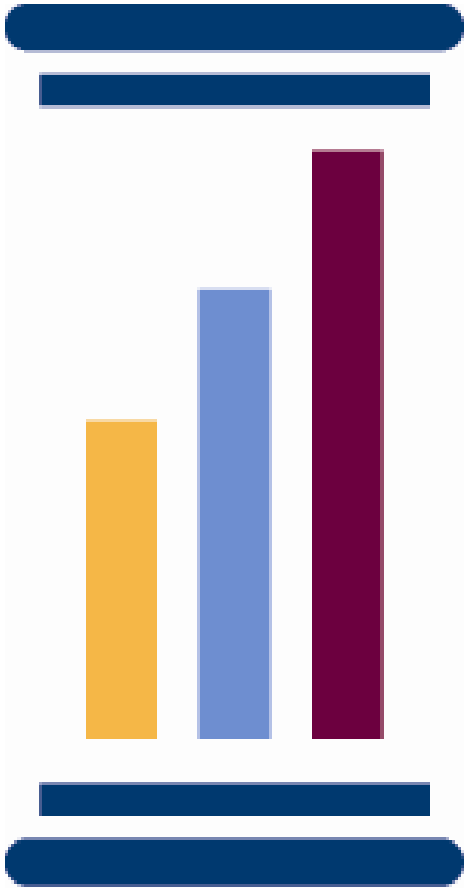
# LIMITATIONS

- Honors College students are high achieving, which is not exactly the same as gifted
  - Research with K-12 populations may not always transfer
- Self-reported data
- Self-selection: for institutions and students
- Low explained variance and small effect sizes
- Correlational, not causal design



# FUTURE RESEARCH

- High impact practice participation
- Institution-level variance?
- Other constructs of potential influence: achievement goal orientation and personality traits
- Faculty who teach honors courses – how do they encourage engagement?
- Link to outcomes: job attainment and career plans
- Other suggestions?



# Questions & Comments?

Angie L. Miller

[anglmill@indiana.edu](mailto:anglmill@indiana.edu)

Amber D. Dumford

[dumford@usf.edu](mailto:dumford@usf.edu)