

Writing, Engagement, and Successful Learning Outcomes in College

Bob Gonyea and Paul Anderson

WRITING, ENGAGEMENT, AND
SUCCESSFUL LEARNING
OUTCOMES IN COLLEGE
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Overview

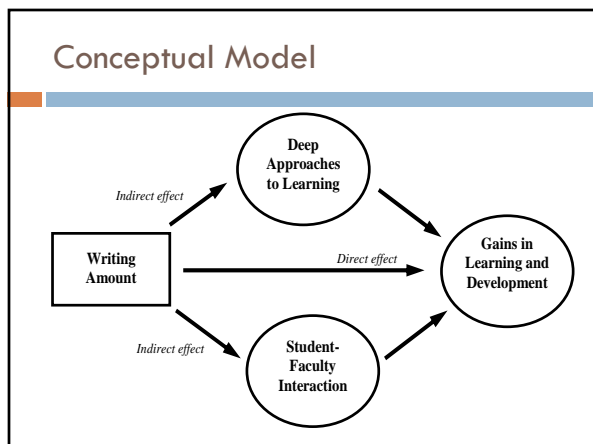
- Literature Review
- Purpose/Conceptual Model
- Methods
- Results
- Limitations
- Conclusions/Implications

Literature Review

- Writing to learn
 - McLeod & Miraglia, 2001
 - Bangert- Drowns, Hurley, and Wilkinson, 2004
 - Klein, 1999
- Student engagement
 - Deep approaches to learning
 - Student-faculty interaction

Purpose

What are the direct, indirect, and total effects of the amount of writing on engagement in deep learning and student-faculty interaction, and on self-perceived learning outcomes?



Methods

- Structural Equation Modeling
- EQS 6.1
- Goodness of fit: CFI and RMSEA

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Data

- National Survey of Student Engagement 2007
- 231,000 full-time students, first-year and senior
- 586 baccalaureate colleges and universities

Variables

- Writing Amount
 - Total number of pages written in academic year
- Deep Approaches to Learning
 - Higher-order learning activities
 - Integrative learning activities
 - Reflective learning activities
- Student-Faculty Interaction
 - Discussed grades, career plans, feedback on coursework, worked on projects outside of classroom

Variables

- Self-Reported Gains in General Education
 - General education learning
 - Writing clearly and effectively
 - Speaking clearly and effectively
 - Thinking critically and analytically
- Self-Reported Gains in Personal and Social Development
 - Learning independently
 - Understanding self and others
 - Developing personal code of values and ethics
 - Contributing to community

Variables

- Covariates
 - Gender
 - Major
 - Private institution
 - Selectivity of institution

Results

Model Fit Indices

Models		CFI	RMSEA
Gains in General Education	First-Year	.97	.05
	Senior	.96	.05
Gains in Personal-Social Development	First-Year	.96	.05
	Senior	.96	.05

Results

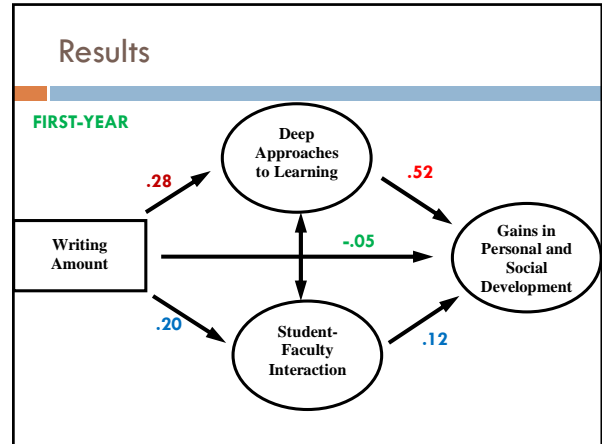
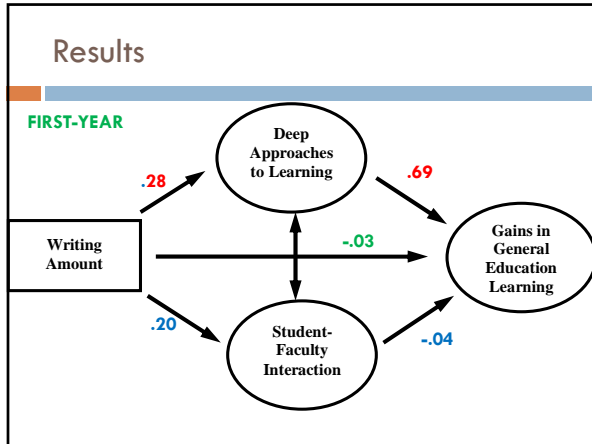
Direct, Indirect, and Total Effects

First-Year Students

Mediator Variables	Direct Effects of Writing Amount on Mediators <i>a</i>	Direct Effects on:		Indirect Effects of Writing Amount on:	
		General Education Learning <i>b</i>	Personal-Social Development <i>b</i>	General Education Learning <i>a*b</i>	Personal-Social Development <i>a*b</i>
Student-Faculty Interaction	.20	-.04	.12	-.01	.02
Deep Approaches to Learning	.28	.69	.52	.19	.15
Writing Amount		-.03	-.05		
<i>Sum of Indirect Effects of Writing Amount</i>				.19	.17
<i>Total Effects of Writing Amount (Direct + Indirect)</i>				.16	.12

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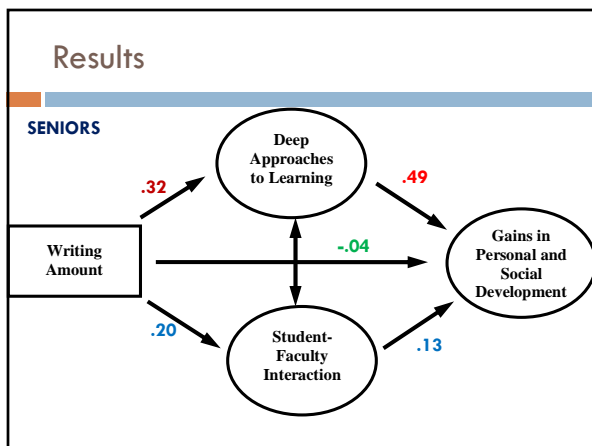
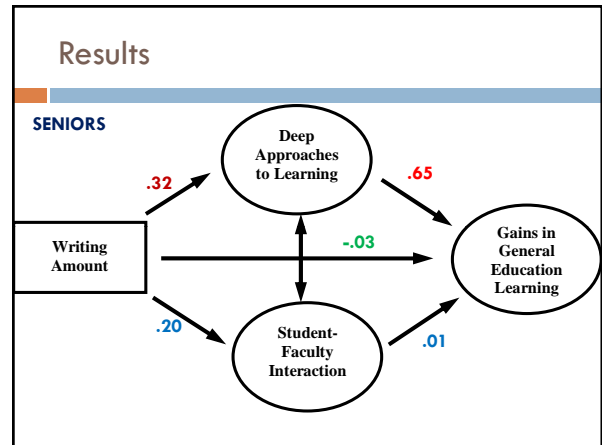


Results

Direct, Indirect, and Total Effects

Seniors

Mediator Variables	Direct Effects on:			Indirect Effects of Writing Amount on:	
	Direct Effects of Writing Amount on Mediators <i>a</i>	General Education Learning <i>b</i>	Personal-Social Development <i>b</i>	General Education Learning <i>a*b</i>	Personal-Social Development <i>a*b</i>
Student-Faculty Interaction	.20	.01	.13	.00	.03
Deep Approaches to Learning	.32	.65	.49	.21	.16
Writing Amount		-.03	-.04		
<i>Sum of Indirect Effects of Writing Amount</i>				.21	.18
<i>Total Effects of Writing Amount (Direct + Indirect)</i>				.18	.14



- ### Limitations
- Self-reported data not a direct stand-in for objective outcomes
 - Calculation of the writing amount contains error

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Conclusions

- Writing does enhance learning,
 - ▣ including higher-order thinking skills,
 - ▣ by driving student engagement
- Need another model of cognition of writing
- Writing is better viewed as a mode of student learning

Implications

- Basis for practical action by faculty and institutions:
 - ▣ . . . not more writing
 - ▣ . . . but writing fosters deep approaches to learning
 - ▣ Student engagement can be modeled in both direct and indirect ways

Thank you

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