

English Teachers' Epistemic Beliefs and their Impact on the Use and Valuing of Constructivist ELA CCSS

Nicolette Filson, Charlotte Roberts, and Dr. Teomara Rutherford

BACKGROUND

Epistemic Beliefs:
beliefs about the nature and acquisition of knowledge

Independent Set of Beliefs:
Simple Knowledge, Certain Knowledge, Omniscient Authority, Quick Learning, Innate Ability

PRIOR RESEARCH



Quantitative Measures:
epistemological questionnaire, epistemic beliefs inventory, epistemological beliefs in teaching and learning

Majority Populations Studied:
pre-service, elementary, and science and mathematics teachers

Correlates of Epistemic Beliefs:
age, education, emotional intelligence, self-efficacy, motivation, teaching practices

Epistemic Beliefs & Teaching Practices:
sophisticated beliefs predict use of collaborative work, group discussions, and process assessment

Constructivist Learning Approach (CLA):
guide students to construct learning through questions and collaboration

Impact of CLA on Student Learning:
increase in student attitude, content knowledge, engagement, academic achievement

Common Core State Standards (CCSS):
college and career learning goals; adopted in 2010; no implementation requirements; designed to improve critical thinking and content knowledge; limited research

APPLICATION TO EDUCATION



RESEARCH QUESTIONS

Are there differences in epistemic beliefs between high school English Language Arts (ELA) teachers and those of different content areas? If so, what are those differences?

Which constructivist ELA CCSS do ELA teachers report to use and value most and least?

Do ELA teachers' epistemic beliefs predict their reported use and value of constructivist ELA CCSS?

METHODS

Identified and emailed all public high school ELA, science, mathematics, and social studies teachers (N = 1,367) in one school district



PROCESS

Designed survey
Cognitive interviewing
Teachers completed survey
Data analysis

Principal Factor Analysis (PFA)
Exploratory Factor Analysis (EFA)
Descriptive Statistics
Correlational analysis
Multiple regression

SAMPLE POPULATION N = 358 ELA 92



77% female



91% white

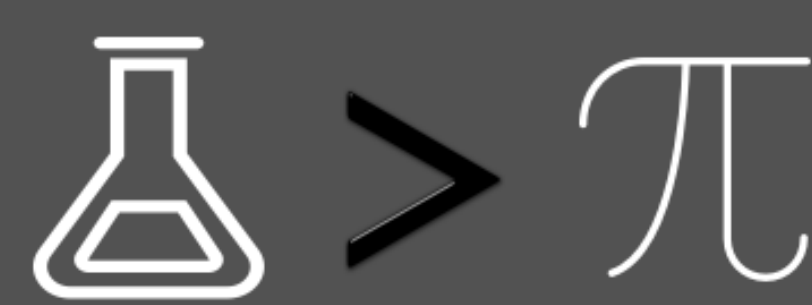


51% grad degree

EBI (Likert Scale, PFA and EFA)
Constructivist CCSS
(Frequency and Importance, Likert Scale)

RESULTS

RESEARCH QUESTION #1



Innate Ability



Simple Knowledge



Omniscient Authority

> =
Sophisticated Beliefs

RESEARCH QUESTION #2

Most Frequent & Important CCSS

Participate effectively in collaborative discussions by...

- posing and responding to questions that relate the current discussion to broader themes or larger ideas.
- building on others' ideas and expressing one's own clearly and persuasively.
- using diverse perspectives and points of view to make connections.
- conversing with diverse partners.

Least Frequent & Important CCSS

Write narrative to develop real or imagined experiences or events.

Analyze various accounts of an informational text told in different mediums (e.g., a person's life story in both print and multimedia).



RESEARCH QUESTION #3

	Innate Ability	Quick Learning	Omniscient Authority	Simple Knowledge	ELA CCC Standard Frequency	ELA CCC Standard Importance
Innate Ability	1.0000					
Quick Learning	0.2857***	1.0000				
Omniscient Authority	0.0699	0.0819	1.0000			
Simple Knowledge	0.1313**	0.2153***	0.0813	1.0000		
ELA CCC Standard Frequency	-0.0582	-0.2452*	0.0260	-0.0092	1.0000	
ELA CCC Standard Importance	0.0335	-0.3765***	0.0530	-0.0065	0.7100***	1.0000

Quick Learning negatively predicted ELA teachers' reported importance of constructivist ELA CCSS

Overall model for frequency of constructivist ELA CCSS was not significant

DISCUSSION



ELA pushes students to critique texts and produce written work, projects, presentations

EBI statements reference to "complex theories" resonated more with science

ELA fosters dialogic environments which improve academic achievement

Narrative writing neglected after middle school despite academic & health benefits

ELA employs process-based assignments; found in prior research

IMPLICATIONS FOR RESEARCH & PRACTICE

- Targeted professional development using epistemic research
- Increase in narrative writing in high school ELA
- Wider diversity of discipline teachers & grade level in epistemic research
- More mixed-methods in epistemic research
- Increase populations of high school ELA teachers in epistemic research
- More epistemic research into predictability of use and valuing of literacy CCSS in other content areas