

# Study on How College Science Courses Influence Elementary School Teachers

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# Collaborators

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# NASA Opportunities for Visionary Academics (NOVA)

- (<http://www.novaprogram.org/Home>)
- >100 institutions participated
- Development or modification of “reform” science courses for elementary education majors
  - Courses incorporate an inquiry-based approach and center on student interactions

# National Study of Education in Undergraduate Science

- Follow-up to the NOVA project
- Total of 30 institutions around the country over  $\sim 3$  years
- Site visits
  - Class Observations
  - Interviews of college faculty, pre- and in-service teachers
  - RTOP\*
  - On-line Surveys
  - Content Questions

\* (Piburn and Sawada, 2000)

# The Course and Schools

School	NOVA Course Description
1 (Public)	
2 (Public)	
3 (Private)	

# Views of Pre-service Teachers

School	Pre-Service Teachers Interview Quotes
1 (Public)	
2 (Public)	
3 (Private)	

# Views of In-service NOVA Teachers

School	In-Service Teachers Interview Quotes
1 (Public)	
2 (Public)	
3 (Private)	

# Views of In-service Non-NOVA Teachers

School	In-Service Teachers Interview Quotes
1 (Public)	
2 (Public)	
3 (Private)	



# Observations of Elementary Classes

School	Observation	Comments
1 (Public)		
2 (Public)		
3 (Private)		

# Conclusions and Questions

- All observed elementary teachers at least attempted to teach by reform methods.
  - What role does the provided curriculum play in this decision?
- When the college content course also integrates pedagogy, it is better remembered by in-service teachers.
  - Where should the line be drawn between content and methods courses and should more effort be placed into their integration?
- Interactions between reform faculty and pre-service teachers have a positive influence.
  - What can/should be done to facilitate these interactions?