

Engaged Time for Argumentative Writing in High School Classrooms

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Context of the Project

- **Members of our project team will present today but also includes Dr. David Bloome, Dr. Helen Marks, and Dr. Alan Hirvela.**
- **Three-Year Study funded by the Institute for Education Sciences (IES) located in the Federal Department of Education.**
- **We are currently completing our 3rd year.**
- **Our Grant is for a Goal 1 Exploration Project:2**
- **“Exploratory research can be used to identify existing practices, programs, or policies that are associated with better education outcomes and that should be evaluated to determine if the identified practices are the actual cause of the better outcomes, as opposed to some other factor that has yet to be uncovered.”**
- **In addition to large-scale quantitative work, we are also conducting case studies of interesting classrooms using a discourse analysis framework for example.**

What is argumentative writing?

- We define argumentative writing as:
 - Writing that involves the use of a claim, evidence, and warrants.
 - A method of applying critical thinking
- We are adapting Toulmin's (1958; 1972, 2001) model of argumentation, which includes the structure of an argument across all domains in terms of claim, warrant, data, and backing.

Why study the teaching and learning of argumentative writing? (1)

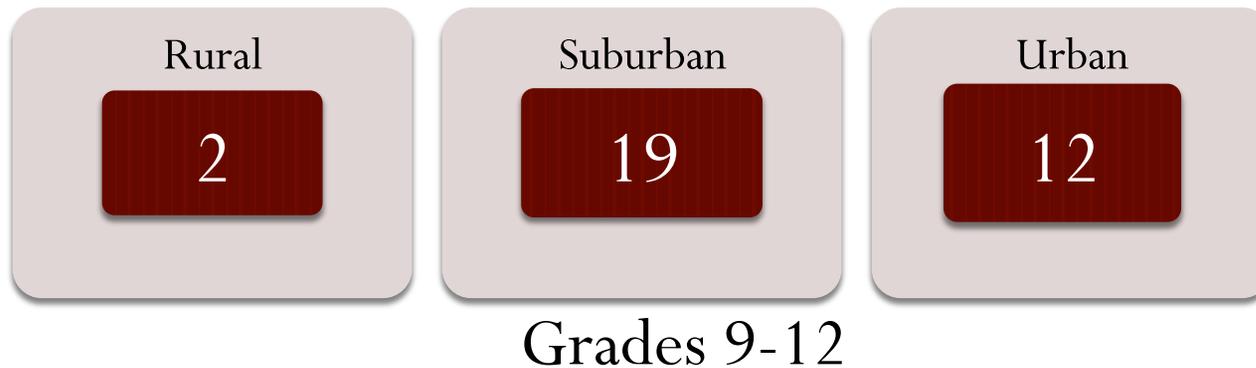
- Engaging in argumentation is a way to learn and practice critical thinking.
- It encourages the development of analytical thought.
- It is a fundamental part of academic work and disciplinary knowing and practices across a range of disciplines. In our case, we are studying argumentation in English language arts.

Why study the teaching and learning of argumentative writing? (2)

- Argumentative writing often appears on standardized tests, including AP tests, ACT's, and SAT's.
- The Common Core State Standards across the U.S. require students to learn and apply aspects of argumentation.
- It is an important genre of writing in college and the workforce.

Classrooms we studied

33 classrooms in Central Ohio



We selected teachers who had several years of experience and reputations for excellence in teaching writing.

- Mean of 14 years of experience

Timing of classroom observations

Year 1: 2010-2011

Year 2: 2011-2012

We observed **one instructional unit** of argumentative writing instruction per participating teacher

Defining an Instructional Unit:

- The teacher and researcher discussed parameters together, following the teacher's lead.
- Observed sessions included instruction between the pre-test and post-tests.
- Interviews were conducted after the observational phase, as was a delayed post-test.

Range

- 4-17 sessions

Mean

- 9 sessions

Types of student data collected

- **Video** recordings of classroom sessions
- Audio recordings of group work
- Interviews of four students per class:
 - Mixed gender
 - Mixed ability level
- Student writing samples:
 - Essays
 - Drafts
 - Notes
- **Writing test booklets:**
 - Pre, post and delayed
- Student questionnaire:
 - Background information
 - Gauge of interest in Language Arts topics
- Teacher's assessments of students' work and abilities
- GPA's

Types of Teacher data collected

- **Video and audio recordings** of classroom teaching
- **Teacher Questionnaire:**
 - Experience teaching and teaching argumentative writing
 - Background information about the teacher
 - Teacher's methodologies and perspectives on the class observed
- Teacher's journals during the unit
- **Teacher interviews:**
 - One at the end of the unit
 - One after the delayed post-test
 - Some teachers were interviewed extensively over the summer
- **Artifacts** provided by the teacher:
 - Handouts
 - Texts
 - Wider information about the school and curricula

Guiding Questions

- What are the *instructional emphases* for the teaching and learning of AW across the 31 classrooms, and what are the interrelationships among variables that describe the instruction the teachers provided?
- What are the *relationships between instructional emphases and student achievement* on a test of high quality performance of AW (controlling for initial performance and related background knowledge)?

The Complexities of Our Work Requires both the Social and the Cognitive

- Our project occurs within and takes seriously the complexities of classroom life, including the vagaries of teachers' and students' interpretations of discussion, reading, writing, and reasoning. The social processes of the classroom and the individual development of students need to be examined simultaneously, with the ultimate goal of a better understanding of the nature of teaching and learning.
- To study both classrooms and the teaching and learning of their inhabitants, we need both social and cognitive theory.

Theoretical Frame (1)

- The Social:
 - Deemphasizing the distinction between public argument and private thinking, Bakhtin writes that “our thought itself...is born and shaped in interaction and struggle with other’s thought, and this cannot but be reflected in the forms that verbally express our thoughts as well” (Bakhtin, 1986, p. 92).
 - The ability to incorporate the voices of “others” into one’s own thinking comes from engagement in social settings, where participants collectively formulate, defend, and scrutinize multiple viewpoints.

Theoretical Frame (2)

- The Cognitive:
 - To guide the development of our research instruments for data collection we will rely on the principles of Hillocks' (1986) notion of the environmental (instructional) mode that emerged from his meta-analysis as a means for constructing our approach to studying the teaching of argumentative writing. Hillocks' metaanalysis of studies of writing instruction revealed that writing instruction emphasizing procedural knowledge consistently demonstrates greater writing gains than other methods of instruction.

Essay Scoring

- Analytic scoring based on Toulmin's model of argument:
 - Claim
 - Evidence
 - Warrant
 - Counter-argument
 - Response to counter-argument
- Each trait rated 0-3 for level of sophistication
(McCann, 1989)

Essay Scores

Small gain from Pre-Test to Post-Test on composite score

Student Pre-Test, Post-Test, and Gain Scores: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PRETEST AW ESSAY	513	.50	14.50	7.0526	2.69189
POSTTEST AW ESSAY	508	.00	14.50	7.3661	3.00998
GAIN SCORE AW ESSAY	475	-9.50	9.50	.3642	3.02242
Valid N (listwise)	475				

Students' mean scores for Claim (2.2; 2.2) and Evidence (1.8; 1.9) were much higher than those for Warrant (1.3; 1.3), Counter-argument (.94; 1.1), and Response to counter-argument (.79; .90)
(*Pre-Test; Post-Test*)

Level 1 Grouping	Whole Class
	Small Groups
	Pairs
	Individual
	Teacher Conference
	Student Presentation
Level 2: Teacher Interaction	Telling/Giving
	Modeling
	Recitation
	Discussion
	Coaching
	Listening
	Reading Aloud
	Representing visually
Level 3: Expected Student Response	Reading Aloud/Silently
	Oral Response (Recitation)
	Discussing
	Debating
	Listening
	Writing
	Student Presentation
Engagement Level	

Level 4: Argumentative Writing Instruction	video time:
	Assignment Instruction
	Links to school-based knowledge
	Links to students' out-of-school knowledge and/or experience
	Essay structure
	Gateway Activity
	Sample/model
	Claim
	Evidence
	Source
	Warrant
	Counter-argument
Response to C-A	
Elements named	
Level 5: Student Active Engagement	Verbal arguments
	Analyzing arguments
	Brainstorming ideas
	Peer review
	Drafting
	Revising
Editing	
Level 6: Instructional Materials	Teacher-made H/O
	Textbook
	Power point slides
	White Board (for teacher or student writing)
	Smart Board

Instructional Coding System

Modified from
Taylor, Pearson, Peterson,
& Rodriguez (2003)

Teachers' Instructional Practices

- On average, across the sampled instruction, the argumentative elements coded more frequently were **Claim** ($M = 13.58$, $SD = 7.95$) and **Evidence** ($M = 12.77$, $SD = 7.62$), much higher than **Warrant** ($M = 4.68$, $SD = 6.09$), **Counter-argument** ($M = 5.16$, $SD = 4.59$), and **Response to Counter-argument** ($M = 2.87$, $SD = 3.63$)
- Verbal Arguments are correlated with Claim ($r = .315$), Evidence ($r = .315$), Warrant ($r = .390$), and Counter-Argument ($r = .434$).

Instructional Practices Related to Student Achievement on Post-Tests

- Positive predictors of writing achievement:
 - Small group instruction ($B = .29, p < .001$)
 - Student debate ($B = .62, p < .001$)
 - Counter-argument ($B = .28, p < .001$)
 - Verbal argument ($B = .10, p < .001$)
- Negative predictors of writing achievement:
 - Individual student work ($B = -.10, p < .05$)
 - Student presentation ($B = -.28, p < .05$)
 - Essay structure ($B = -.06, p < .05$)
 - Analysis of argument ($B = -.05, p < .05$)
 - Brainstorming ideas ($B = -.07, p < .01$)
 - Drafting ($B = -.11, p < .001$)

Method of Forming a Chain

- Begin from an ethnographic stance to understand emic perspective
 - Observational data
 - Interviews with teachers and students
- Analyze the summative argumentative assignment for key ideas, knowledge, and skills
- Index all instructional episodes
- Choose episodes to include in chain
 - Coherent, ecologically valid chain of episodes
 - Representative of instruction

Classroom Contexts

12th grade AP Literature

Suburban High School

According to the state report,
19.7% of students
are “economically disadvantaged”

24 Students

- 18 females, 4 males
- 20 identified as White; 2 identified as Asian

Teacher

- White, female,
- 25 years of teaching experience,
- Department chair,
- Teacher-consultant for NWP
- PhD in English education

Heart of Darkness Argumentative Research Essay

Examine the evidence from the articles and your interpretation of the novella.

CLAIM either:

HOD should be taught in high school.

HOD should not be taught in high school.

- While there are multiple ways to construct an argumentative essay, and multiple lengths, for the purpose of this paper, I would like you to have at **least two sub-claims** with **two to three supports** for each, **two counterclaims, or conditions for rebuttal**, with **one or two supports** for each, and **two rebuttals**, with **two to three supports** for each. Your supports can come from the articles AND your interpretation of the novella.
- The paper will be about 9-13 paragraphs, about 3-4 pages, but most importantly, the reader will clearly **understand your position, and believe it because you have supported your claim and rebutted any counterclaims, ending with a strong conclusion that is convincing.** Worry more about that than length.

12th grade AP Literature

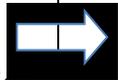
Session #1

Introduction of the Toulmin Model

Demonstration of how to develop an argument

Small group practice

40 minutes



Session #2

Structure review

Small groups: qualifiers & backing

Two mock debates

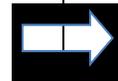
Read model text & mark evidence

Discussion of elements

Small group practice

Explanation of reasons

45 minutes



Session #3

Review "AW process"

Small group prep

1st Mock debate

Groups revise arguments

Small group work

2nd mock debate

40 minutes



Session #4

Review elements of argument & essay expectations

T coaches individuals as they draft essays

25 minutes

Session 1

1. Teacher introduces the argumentative writing unit
 - Based off of the class's previous reading of *Heart of Darkness*
 - Clarifies that argumentation is different from literary analysis, which they have already learned
 - Using Toulmin model as a heuristic
 - Bridges new terms in relation to previous knowledge of literary analysis

2. Demonstration of How to Develop an Argument

- Teacher selects and models the process of argumentation
 - Topic: Social Networking
 - Students suggest (evidence & warrants)
 - **Teacher acts as mediator**
- Students select and co-construct an argument
 - Students refine and exhaust the evidence and warrant
 - Teacher acts as facilitator

3. Small Group Practice

- Once comfortable, students pair up and construct another argument based off of the teacher's topic list
 - Students create:
 - Claim
 - Multiple pieces of evidence
 - Warrants
 - Counterarguments
 - Once created the teacher held a mock debate
 - This is illustrative of the high interaction and manipulation of the Toulmin terms

SESSION

2

WHOLE CLASS
INSTRUCTION

GROUPS OF 3

MINI MOCK DEBATES

INDIVIDUAL, SILENT
READING

WHOLE CLASS
DISCUSSION

GROUPS OF 3

Discussion/ Writing Prompts

Learning the Parts of Complex
Argument

“Facebook is a negative for young people.”

→ **Whole class:** Define qualifiers and backing

“Schools should only serve healthy lunches.”

→ **Groups of 3:** Add qualifiers

1) “Is a college degree a necessity for employment?”
2) “Should schools prohibit certain movies during the school day?”

→ **Mini Mock Debates:** Identify and use claims, qualifiers, evidence, warrants, backing, counter arguments, and rebuttals to counter arguments

“Should schools make truant students wear GPS tracking devices?”

→ **Individual & Whole Class:** Claims, evidence, and unstated warrants

Mini Mock Debate Discussion as Drafting

T: So let's reword it and say, what's your evidence? "*It's a good thing that our school put a ban on movies. Our school put a ban on movies,*" so, no "*so I believe some censorship of media should be put in place.*" You think it's a good thing. Since students cannot make decisions, so let's say films. Some censorship of films should be put in place.

B1: Okay.

T: It still doesn't sound right, does it? Doesn't sound right. How can we fix this?

Teacher Intervention at the Board

CLAIM: Film permission slips should be required by MHS.

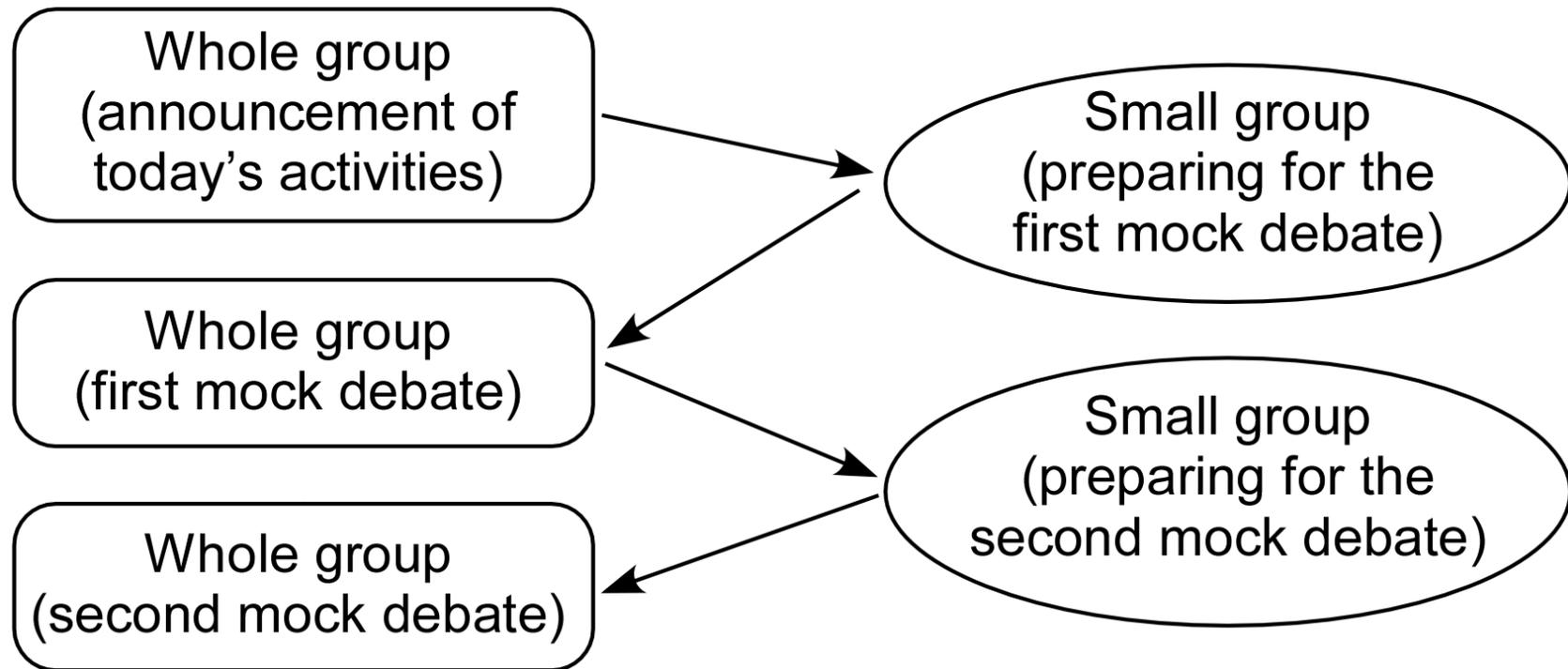
EVIDENCE: Parents objected to some films last year.

WARRANT #1: . . . since parents know best.

WARRANT #2: . . . since students cannot make decisions on their own.

WARRANT #3: . . . **Since the decision lobe of the brain is not fully developed until a person is 18 years old.**

Session 3



<Figure> Participation structures employed in session 3

The relationship between small group work and mock debates

- The following is part of the teacher's instructions given prior to the first small group work:

T: ...Three or four groups and just one person writes down the evidence, claim, warrant, and backing. As soon as your group gets done, put it on the board.
One person from each group puts it on the board.

- Small group work

→ Because of shared goals, students engaged in brainstorming ideas, drafting their group writing, sharing their feedback, and revising their draft collaboratively, recursively and verbally.

- Mock debates

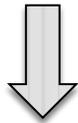
→ Students kept on revising their draft collaboratively. They were actually engaging in argument with the elements.

The relationship between first and second mock debate

- Progressive pattern of brainstorming in which each previous activity contributes to the next activity.

First mock debate

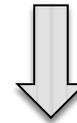
Developing elements for the larger claim



Second mock debate

Finding sub-claims and developing elements to support their sub-claims

Presenting different arguments



Having back and forth interaction between the pros and cons groups

Second Mock Debate Discussion

T: Now take one of your sub-claims and argue that. Yes but...

S1A: Yes but the break gives kids more time to review.

S2: But most students don't review anything...

T: Wait. Hang on. So the break gives kids more time to review, but what is your warrant for that?

S1B: There are less extracurriculars (inaudible) during break so kids are less distracted.

S2: False.

T: Is that a warrant for that reason or is that another reason?

We welcome you to visit our
team's website:
arguewrite.ehe.osu.edu

Thank you!

AWP

Argumentative
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