Contexts for Essay Writing in a Logic Class

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80-211: Logic and Mathematical Inquiry

- Teaches skills
  - Basic logic
  - Validity of inference
  - ...

- Assessed using exercises

- Teaches knowledge
  - History of logic
  - 19th and 20th century developments
  - ...

- Assessed using essays

10 homeworks, 2 exams: similar essays in both
Let's do an activity ... with YOU!

1. Read the 2 essays being distributed
2. Assess their quality in groups of 3-5
3. Report your findings
The Actual Story

Typeset essay
Homework assignment

- 4-5 days to write essay
- Access to
  - ARC, library, peers
  - spell-checker, web,
  - ...
Could make corrections

Hand-written essay
Midterm

- Strict time constraints
- No help, no technology

Yet
- Well-organized
- Few errors
- Few corrections

Big surprise
Our initial impression

The midterm essays were of higher quality

How was this possible?
Conjectures

Our conjectures:
- Technology in the way of flow of ideas
- The web makes one less confident in one's understanding

Our colleagues' conjectures:
- Absence of distractions (people, Facebook, games, ...)
- No multitasking
- Perceived importance of task
- Immediacy of pen and paper

Test them!
Action Plan

- Alternate typeset & handwritten essays in assignments
  - To tease out the role of the exam context
- Handwritten essay in final
- Learn the students' point of view
  - through interviews
  - using a survey
- Develop strategies to help students be more effective with essays
Follow-up Essays

3 typeset, 2 handwritten (including exam)

Outcomes

- No striking differences in quality
- Decline in essay quality in 2nd half of semester
- Decline in class attendance
  - Students clearly under stress
- Students had the option of dropping 2 homeworks

This attempt was inconclusive
Survey Questions

- Homework essays
  1. How much time did you spend on average?
  2. Did you typically make a draft?
  3. Did you do other things at the same time?
  4. Did you complete it in a single sessions?
  5. Did you use tools? Which?
  6. How important were they in your view?

- Midterm essay
  1. How much time?
  2. Did you write an outline?
  3. How important was it in your view?
Survey Outcomes

- **Time**
  - Significantly more on homework (30-45 min vs. 10-15 min)

- **Importance**
  - Average in both cases, more spread-out for midterm

- **Draft/outline**
  - Rare in midterm, frequent in homework

- **Multitaskinging in homework**
  - Pervasive (music, Facebook, friends, web)
  - No other homeworks at the same time

- **Tools in homework**
  - Spellchecker, Google, Wikipedia, grammar-checker, other
Survey Analysis

Not enough responses for conclusive results

- Seem to assign same importance to homework and midterm essays
- Significantly more time for homework essays
- Significant use of tools for homework essays
- Lots of distractions during homeworks
Conclusions

No conclusive evidence of benefits of handwritten essays

But, not a handicap either:

- Quality at least equivalent to typeset essays
- A lot less time spent on essays

Give handwriting a chance

- your students’ essays
- your own