USING COURSE MANAGEMENT TOOLS IN FACE-TO-FACE CLASSROOMS: A CASE STUDY

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ABSTRACT

Internet-based course management tools improve and simplify the delivery of content materials for a face-to-face class, and provide an effective means to manage numerous aspects of a course.

A Blackboard web was used to manage aspects of two sections of an Introduction to Language course. Two measures were used to evaluate the effectiveness of the IT support provided: website traffic statistics and feedback by students.

THE COURSE: "IT-Ling-101"

- Introduction to the study of language
- Open to:
  - prospective Linguistics majors
  - students fulfilling college-wide Humanities requirement
- Bi-weekly sessions, 3 hrs/wk
  - lectures, in-class tests, in-class group work
- Eight thematic units, with:
  - related readings
  - homework assignments (N=5, 50% of grade)
  - tests (N=4, 40%)
  - group work (10%)

THE WEB

- Administrative functions:
  - gradebook, copies of handouts, electronic homework worksheets, dynamic syllabus
- Content:
  - annotated answer keys for homeworks & tests, lecture notes, external links to textbook and to other sites of interest
- Required use: one assignment, configuring personal information
- Expected use:
  - retrieving homework, checking answer keys, reading lecture notes, keeping track of grades

THE STUDENTS

- Queens College
  - public 4-year institution, NYC
- On average, age 22
- Education & present employment
  - > 50% attended NYC public schools
  - ~ 75% full-time students
- Most, new to Blackboard (and other course management software)

Figure 1:
Distribution of students by academic year
(data incomplete: N=55, 71% of total)

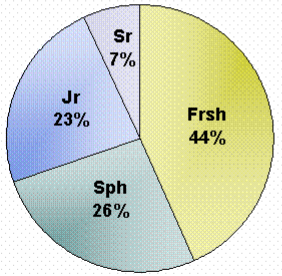
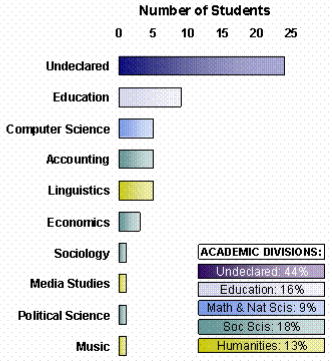


Figure 2:
Distribution of majors
(data incomplete: N=55, 71% of total)



THE DATA

- Website traffic statistics
  - compiled by Blackboard's hit counters
- Anonymous student comments
  - collected by means of college-administered survey
- Two similar semesters, data pooled
  - no interesting differences by semester
- Exclusions
  - website traffic analysis: two (outliers by grade or hits)
  - survey: several (absent on date administered)
- Assets & liabilities
  - both forms of data collected without focus on this investigation
  - both forms of data only provide **indirect** assessment of impact of technology

	SP '01	*SP '02*	***Data Analyzed***	***Prop. Total Enrollment***
Web Traffic	39	37	**76**	**97%**
Survey	33	27	**60**	**77%**
Total Enrollment	40	38		

WEBSITE TRAFFIC

- Total hits: 40,900
- Average no. of hits, per student: 538
- Average no. of pages of content in web: 35
- Total weeks in semester: 15
- \ average student visited entire web (or parts thereof) approximately once per week

(Traffic summaries were generated some 3 weeks after the end of each semester, to include traffic after the last test was administered.)

Figure 3:
Distribution of hits
(N = 40.9K)

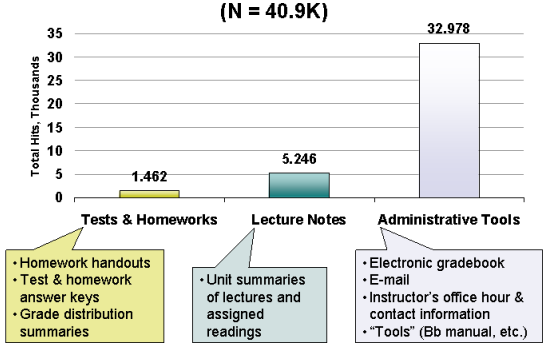
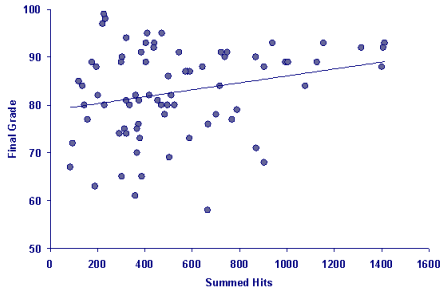


Figure 4: Total hits against final grade for course
r (74) = .251, p < .05



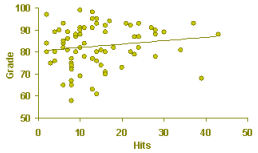


Figure 5: Hits to homework areas against final grade, *r* (74) = .150, p > .10

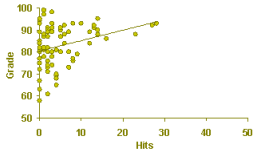


Figure 6: Hits to test areas against final grade, *r* (74) = .300, p < .01

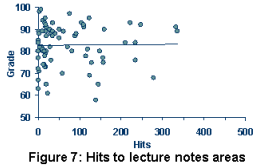


Figure 7: Hits to lecture notes areas against final grade, *r* (74) = .015, p > .10

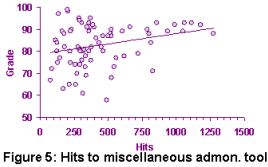


Figure 5: Hits to miscellaneous admon. tools against final grade, *r* (74) = .276, p < .02

SURVEY

- Spring 2001:
  - o "…and the use of the Internet."
  - o "The Blackboard equipment."
  - o "I liked most the online aspect of the class and how you could check your grade and also get the notes online at Blackboard."
  - o "The availability of info ex: class notes, announcements & grade posting was really helpful."
  - o "The fact that it was on the web, and if I did not clearly get something in class or in my notes I could look it up."
  - o "I enjoyed how we were able to go online for our class assignments and how we could keep track of our class standing. This was the first class that exposed me to this. It was GREAT!!"
- Spring 2002
  - o "…helpful notes…"
  - o "She would post everything on Blackboard so we can see the notes if we miss class."

OBSERVATIONS

A POSITIVE CORRELATION: DID THE COURSE WEB IMPROVE PERFORMANCE?

- Correlation does not necessarily reflect causal relationship between grades and number of visits:
  - o the more responsible students were more frequent visitors?
  - o better-than-average grades determined by general good study skills (rather than by interaction with electronic materials)?
- **Administrative Tools** are
  - o perceived to be more useful than **Content**
  - o used more frequently than **Content**
  - o CAVEAT: hit totals to Administrative Tools are overinflated
    - they include hits to real tools pages, and to pages higher in the hierarchy (pages to get to the tools)
    - improved features in Blackboard's hit counters will ensure greater accuracy in future investigations
- Students:
  - o perceive **Lecture Notes** as being useful, but hits to those areas *fail* to correlate with performance
  - o apparently under-use **Answer Keys**, but hits to those areas seem to be the best predictors of performance
- Greatest amount of variation was found in the browsing behavior of students with final grades in the low 80s to low 90s range

CONCLUSION

Using course management tools can improve and simplify, for a face-to-face class, delivery of content materials and management of many other aspects of a course.

Rigorous evaluation of the impact of course-management technology is nonetheless called for, to justify the difficulties faculty (and administrators) must overcome in these early phases of implementation.

Measures such as these (but with increased sophistication) should help bring forth a better understanding of the impact, on both students and faculty, of the technology.