
**Pedagogy and Assessment in
General Education –
an analysis of data from students’
rating of instruction**

Mei Yee Leung & Vitrierat Ng
The Chinese University of Hong Kong

GE Reform: Curriculum or Pedagogy?

- General education reform: focus on curriculum
- “A curriculum is only as effective as the pedagogy that supports it (Gaston & Gaff 2009). ”
- Recent reform : GE curriculum with some components of high-impact educational practices

GE Reform: Curriculum or Pedagogy?

- Common characteristic: emphasis on active learning;
- Paradigm shift: from “teaching students” to “encouraging students to become active in their own education.”

GE Reform: Curriculum or Pedagogy?

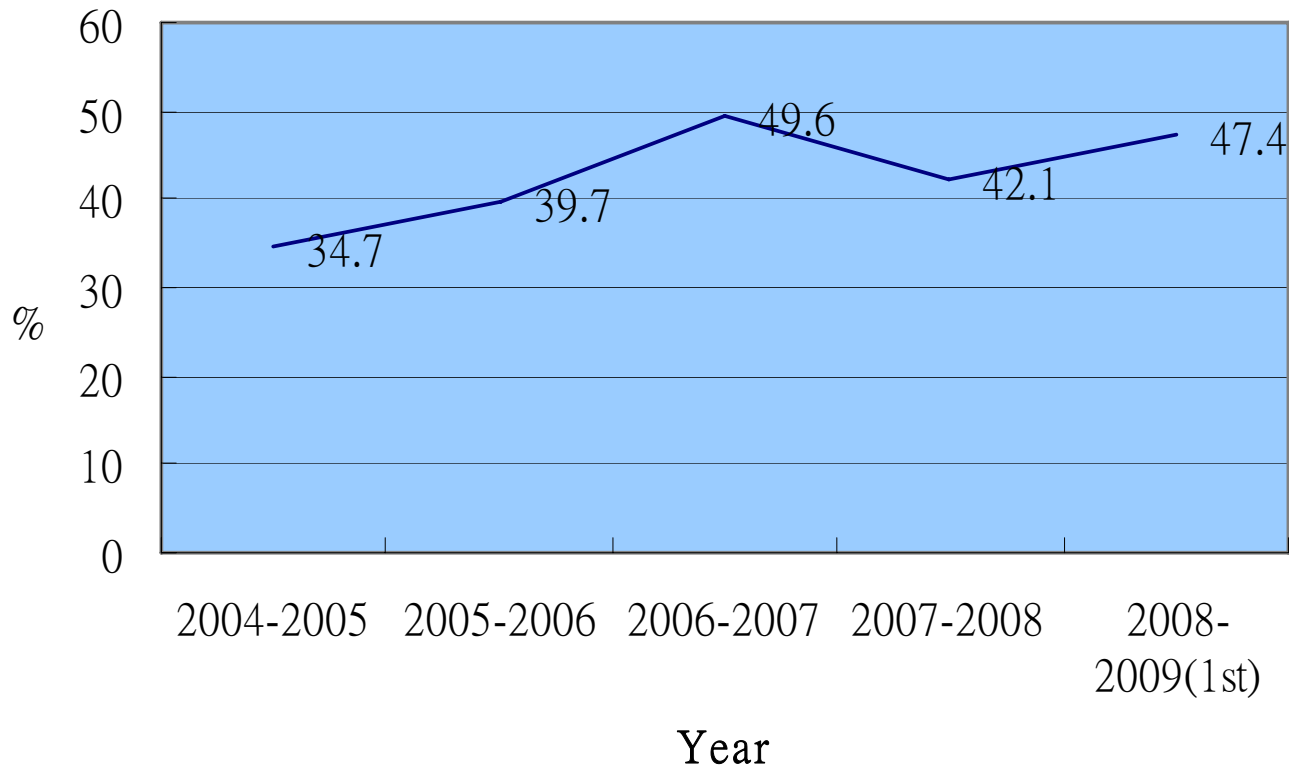
How to convince and engage faculty to this paradigm shift?

- Difficulty: General Education is a collective matter
- In CUHK, yearly offering in GE program counts above 220 courses and above 250 sections.

GE Reform: Curriculum or Pedagogy?

- Teachers are from more than 40 different disciplines => very difficult to evaluate teaching effectiveness; even more difficult to initiate new practices
- Budget model assigns costs and earnings according to student head-count; on a course-by-course and department-by-department basis => increased class sizes

The percentage of large class size (>50 students in class) of University General Education class from 2004-2009



Large class size : > 50 students in class

A statistical approach to the assessment of teaching

Assess the effectiveness of teaching in GE with evidence-based approach in relation to two factors:

- What is the impact of class size on student learning?
- What is the impact of interactive teaching practices on student learning?

A statistical approach to the assessment of teaching

- Data source: Course and Teaching Evaluation (CTE) administrated by the Office of University General Education at the end of each semester for each course
- Nature of the data: student perception of their learning and rating of instruction; report on individual course
- Sample: 2008-2009 1st semester = 137 GE sections
- Average response rate 70%

Questions considered in the analysis

Overall Evaluation of the course

- **Q11)** Overall, I am satisfied with the teacher's performance;
- **Q12)** Overall, I am satisfied with the course;

Questions considered in the analysis

Student Learning

- **Q8)** This course has given me new knowledge beyond my major discipline;
- **Q9)** This course has given me new knowledge that I wish to learn;
- **Q10)** Overall, this course has broadened my intellectual perspective.

Questions considered in the analysis

Teacher-student interaction

- **Q13)** The teacher encourages student participation, questions and discussion, given the size and nature of this class;
- **Q14)** The teacher gives useful comments and feedback on work done for the course (e.g. papers, assignments, projects, discussions etc) ;
- **Q15)** The teacher was available and helpful when I asked for help outside of class.

Initial findings----Class Size

X no significant relationship with the **overall student rating of the course.**

Table 1. Inter-Correlation Among all Variables Investigated

	Variables	Class Size
Student Learning	Q8. New knowledge beyond my discipline.	-.127
	Q9. New knowledge that wish to learn	-.282**
	Q10. Broadened my perspective	-.174*
Overall Satisfaction	Q11. Satisfaction with teachers' performance	-.064
	Q12. Satisfaction with the course	-.078
Teacher Student Interaction	Q13. Teacher encourages student interaction in class	-.446**
	Q14. Teacher gives useful comments and feedback	-.252**
	Q15. Teacher was available and helpful outside class	-.291**

Note: *p<0.05, **p<0.01

Initial findings----Class Size

- ✓ BUT, has **negative relationship** with **student learning and teacher-student interaction**

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Note: *p<0.05, **p<0.01

Initial Finding– Teacher-student Interaction

- ✓ Teacher-student interaction is a **strong and positive** factor to influence the **student overall satisfaction and student learning**

Initial Finding– Teacher-student Interaction

- Q13, 14 and 15 are **combined into a new scale** “Teacher-student Interaction” ($\alpha=0.726$).

Teacher-student interaction

- **Q13)** The teacher encourages student participation, questions and discussion, given the size and nature of this class;
- **Q14)** The teacher gives useful comments and feedback on work done for the course (e.g. papers, assignments, projects, discussions etc) ;
- **Q15)** The teacher was available and helpful when I asked for help outside of class.

Teacher-student Interaction

Table 2. Inter-Correlation Among the Variables Investigated

	Variables	Teacher-student Interaction
Student Learning	Q8. New knowledge beyond my discipline.	.464**
	Q9. New knowledge that wish to learn	.563**
	Q10. Broadened my perspective	.485**
Overall Satisfaction	Q11. Satisfaction with teachers' performance	.524**
	Q12. Satisfaction with the course	.516**

Note: * $p < 0.05$, ** $p < 0.01$

Summary

■ Class size

- has insignificant effect on the students' overall rating of the course;
- is negatively correlated with student learning in relation GE goals;
- has a negative relationship with interactive learning.

■ Teacher-student interaction

- is strongly and positively correlated with overall satisfaction and students' self perceived learning outcomes

Implications

- Ideal GE course: smaller class size and interactive teaching and learning
- As GE courses should go beyond imparting disciplinary knowledge, interactive learning may be more important than class size
- Ways ahead: how to reinforce interactive teaching & learning in the classroom will be very important in the enhancement of the quality of GE courses

Appendices 1:

Descriptive Statistics among All Variables

	N	Mean	SD
Q8. New knowledge beyond my discipline.	137	4.9959	.37011
Q9. New knowledge that wish to learn	137	4.5943	.49772
Q10. Broadened my perspective	137	4.8072	.46232
Q11. Satisfaction with teachers' performance	137	4.8894	.55416
Q12. Satisfaction with the course	137	4.6923	.48789
Q13. Teacher encourages student interaction in class	137	4.4235	.55846
Q14. Teacher gives useful comments and feedback	137	4.2193	.67125
Q15. Teacher was available and helpful outside class	137	4.8036	.41107
Class Size	137	38.93	--
Using Cantonese as medium of instruction	92	--	--
Using Putonghua as medium of instruction	4	--	--
Using English as medium of instruction	41	--	--

References

- Gaston, P. L. and Gaff, J. G. (2009) *Revision General Education – And Avoiding the Potholes*. Washington: Association of American Colleges and & Universities.
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