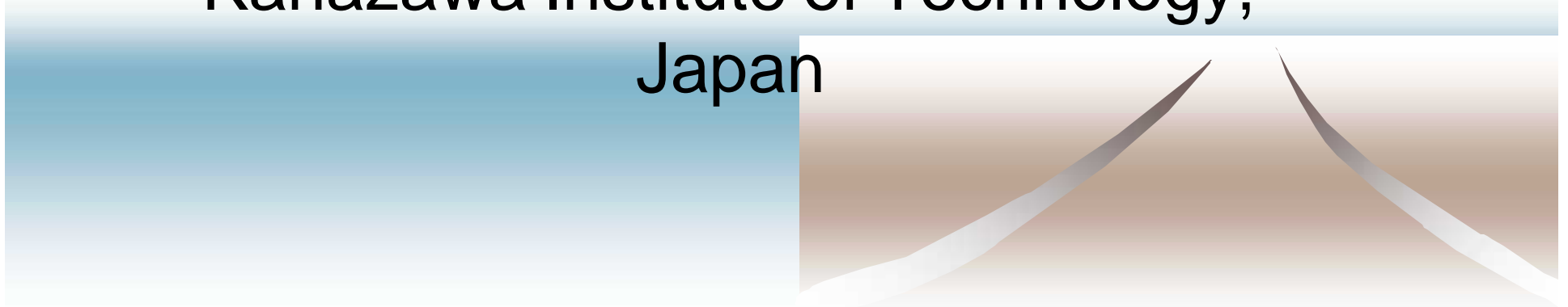


ICEE2004, Gainesville, USA

**Introductory and Engineering Ethics
Education for Freshmen Engineering
Students in Japan**

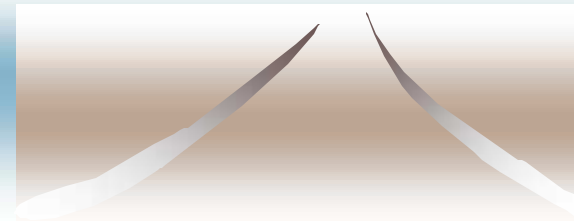
Hiroshi Iino,

Koji Yamaguchi and Nobuo Yoshida
Kanazawa Institute of Technology,
Japan



Contents

1. Why the new subject?
2. Development of “society and Engineers”
Contents, Assignments, Grading
3. Textbook
4. Evaluation by students
5. Start of new compulsory subjects
6. Summary



1. Why the new subject?

Quality of incoming graduates to industry

Lack of knowledge

Bubble Easy employment Leisure land

Lack of Vitality or Aggressiveness

Affluent Society

Small number of children

Parents' attitude



Senior Students regret very much first three
years of undergraduate study

Engineering ethics education

Incoming students do not know

What and who are engineers and what they do

What is going on in society

Knowledge-based society: finding job in Japan

Hence lack of attitude to study



2.Development of “society and Engineers” Contents, Assignments, Grading

Contents:Eight items+ summary (refer to Text)

Assignments

Weekly reports:Newspapers

No.1report:book on positive thinking

No.2report:opinion on world and society

Reports on video viewing

Grading

Report:50%, tests:40%, Attitude:10%



3.Textbook

“Becoming and being engineers”

Hand outs in 1996 Textbook in 1997

Publication in 1998

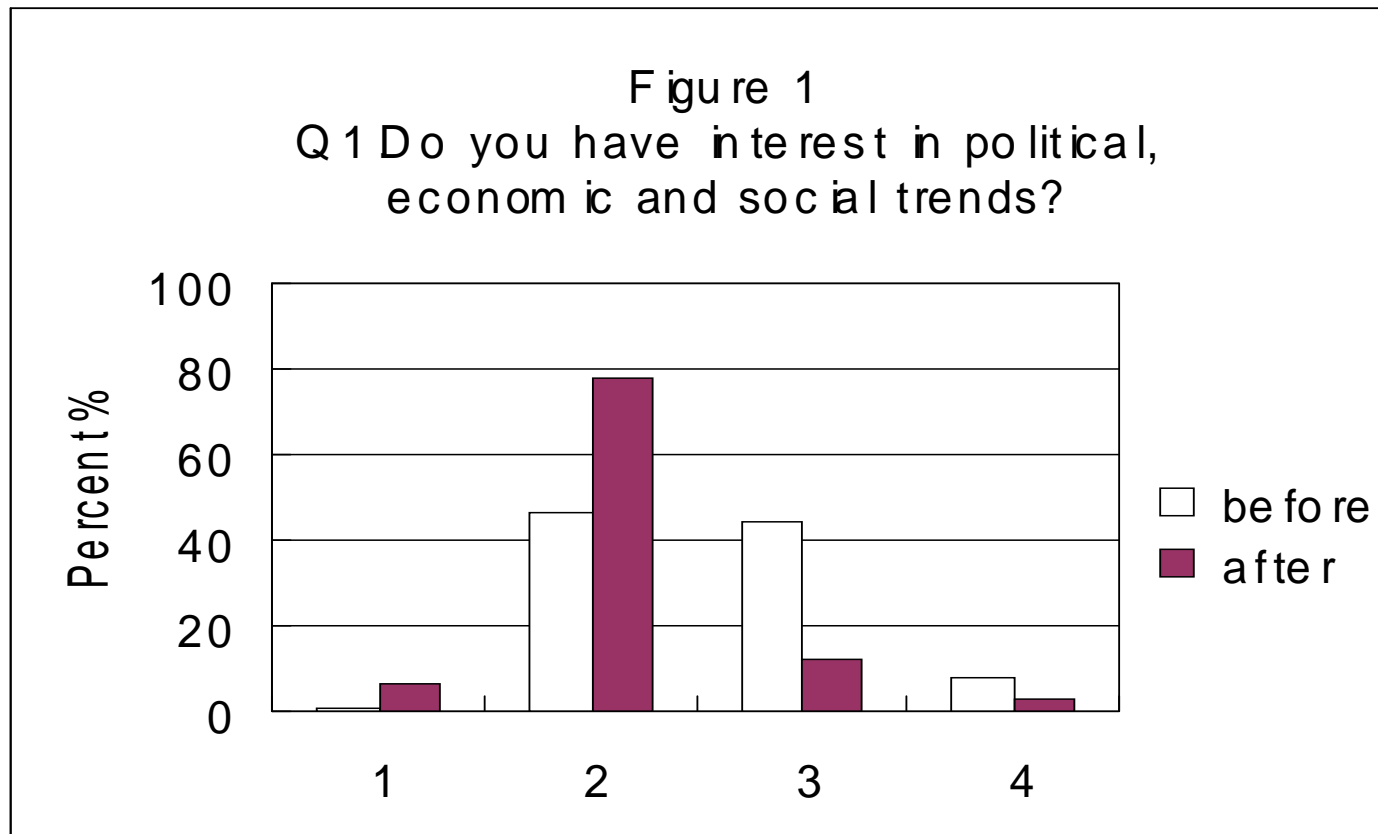
300pages, 9 chapters

Revised every other year in 2000,2002,2004

In 2003, 14 engineering schools used it as
a text book or reference.



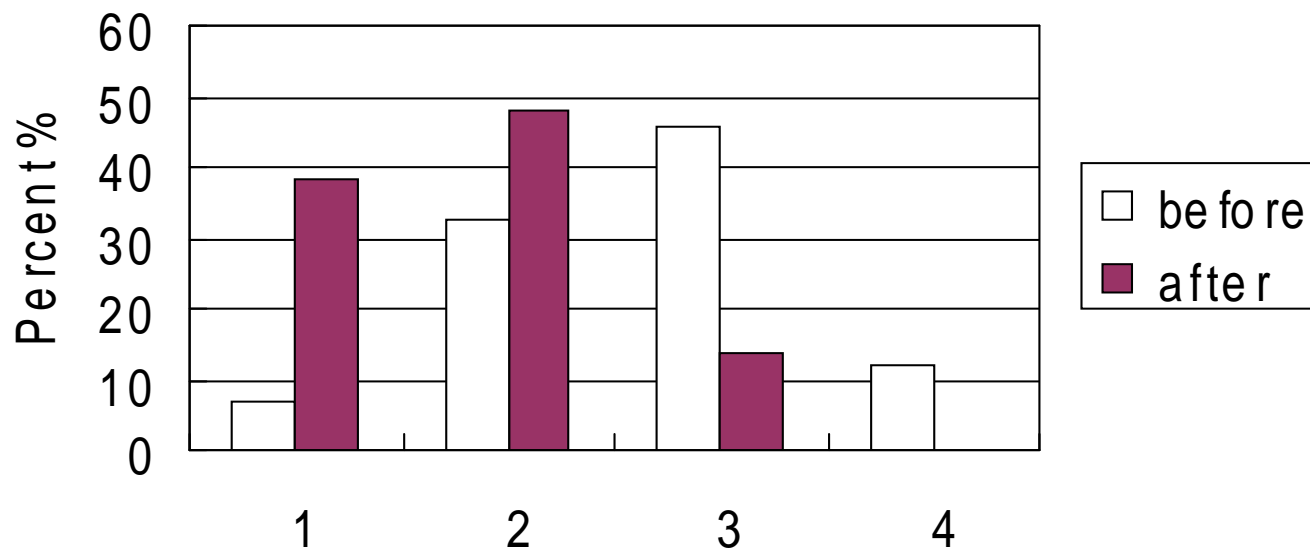
4.Evaluation by students



1.Always have interest 2.Have interest
3.Not much interest 4.Almost no interest

Figure 6

Q6. Do you understand engineers have responsibility to society as professionals?



1. Very well

2. Fairly well

3. A little

4. Little

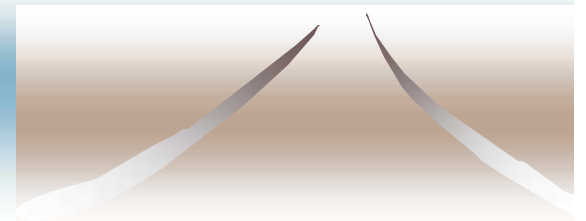
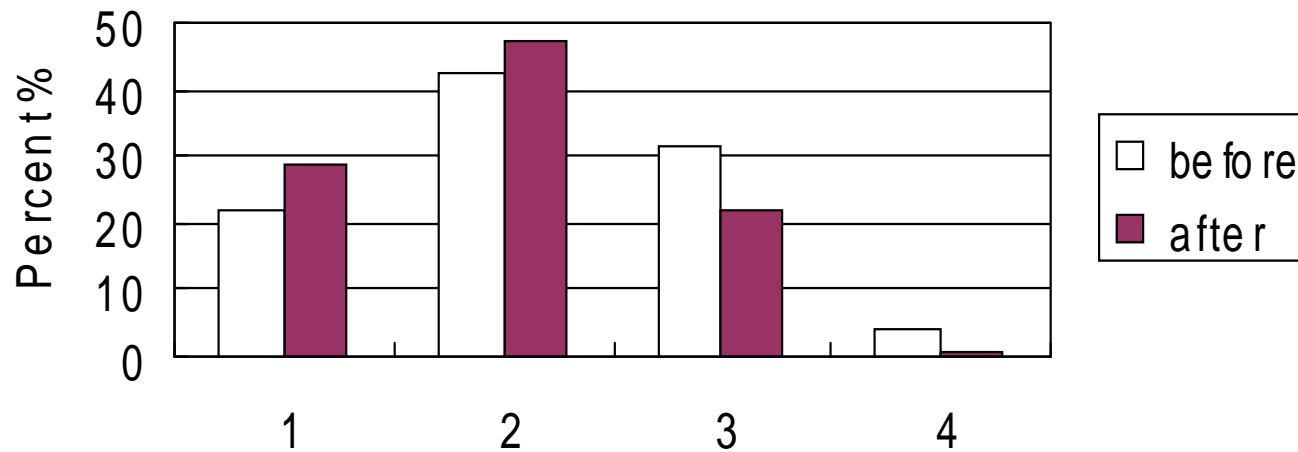


Figure 7
Q7.Do you hav
a future target?



- 1.Have a concrete target 2.Have a target
3.have a vague target 4.have none

	To strengthen your interest in society	To find out a future target	To find out a target for school life
Weekly reports	89%	16%	7%
Lecture	45%	51%	56%
No.1 report	14%	44%	45%
No.2 report	24%	30%	36%
No help	0%	15%	9%

5.Start of new compulsory subjects

From April, 2004 for all 1700 freshmen by four professors

Subject name	Society and Engineers	Introduction to Engineers
Status	Selective compulsory	^{1,2,3} Compulsory
Weeks	10(one term)	30(three terms)
Class/week	3	1
Credit unit	$3 \times 1 = 3$	$1 \times 3 = 3$

6.Summary

Need of new subject for freshmen

Development of “Society and Engineers”
in 1996

Eight major contents+summary
including engineering ethics

Student assignments and grading

Making textbook used outside

Students’ evaluation of the subject

Start of new compulsory subject in 2004

“Introduction to Engineers”

