

Some Problems in Evaluation of Student's Attainment

– Focusing on Sci-Tech Specialty Education –

功刀 滋

Shigeru Kunugi, Dr.

京都工芸繊維大学 教授
大学院工芸科学研究科生体分子工学専攻

Professor, Kyoto Institute of Technology,
Graduate School of Technology and Science,
Department of Biomolecular Engineering

1. Fairness in Evaluation
2. Inspection of Program
3. Evaluation and the Society
4. Visible and Invisible Aspects in the Current Evaluation System₁

1. Fairness in Evaluation in Question

Biases by Subjects

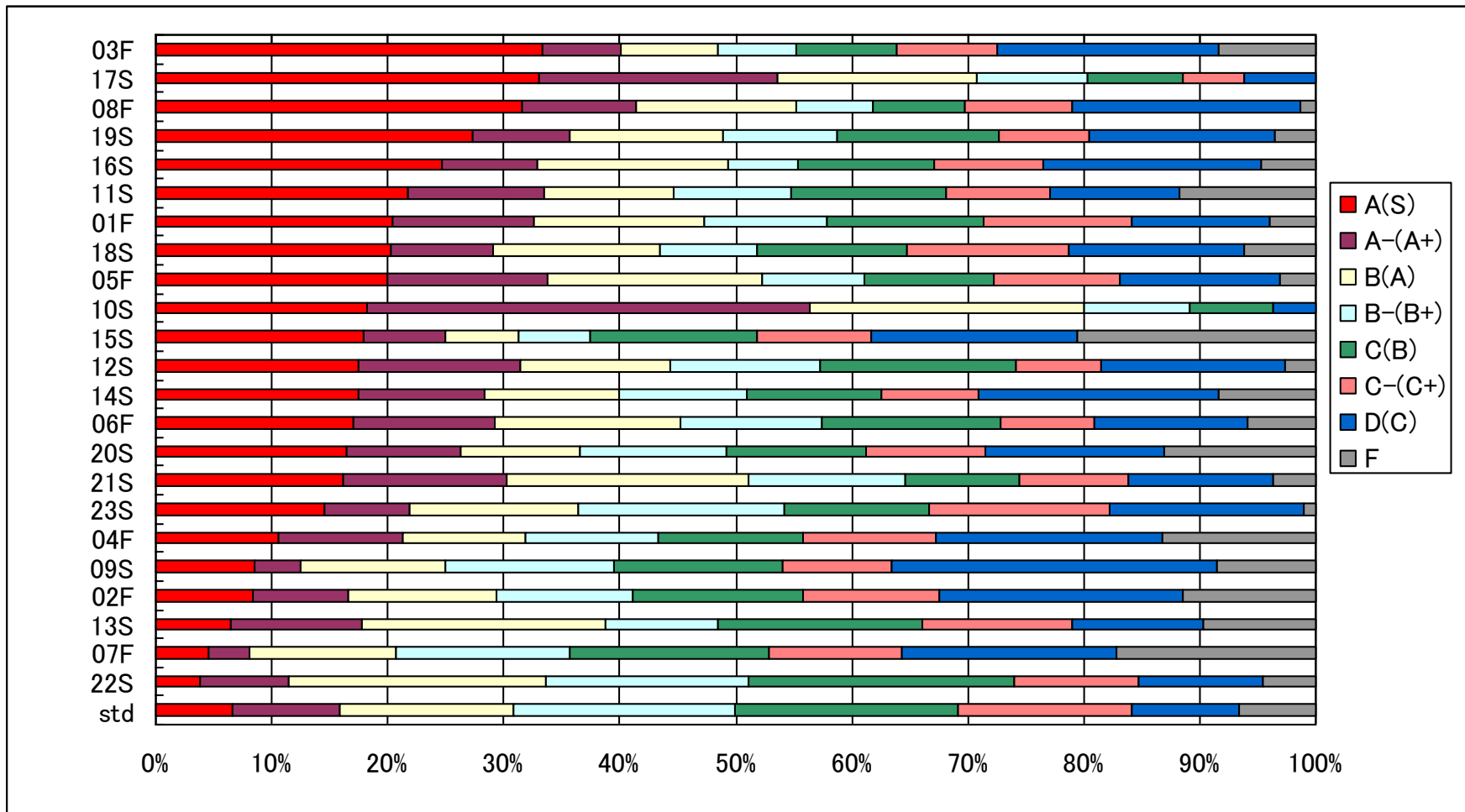
Biases by Subject-Categories

Biases by Teachers

Relation with SET Score

Biases by Subjects

BME Major Basic Subjects, Major Subjects



Biases by Subject-Categories

Category	GPA	Subject	GPA	Style	GPA
Humanity	2.63				
Language	2.40				
Major Basic	2.41	Chemistry	2.21	Lecture	2.04
				Seminar/Practice	2.97
		Physics	2.33	Lecture	2.00
				Seminar/Practice	2.55
		Mathematics	2.64		
		Environment/ Biology	1.84		
		Information	3.48		
Major	2.25 (except for Graduation project: 2.20)				

Humanity > Major Basic > Language > Major

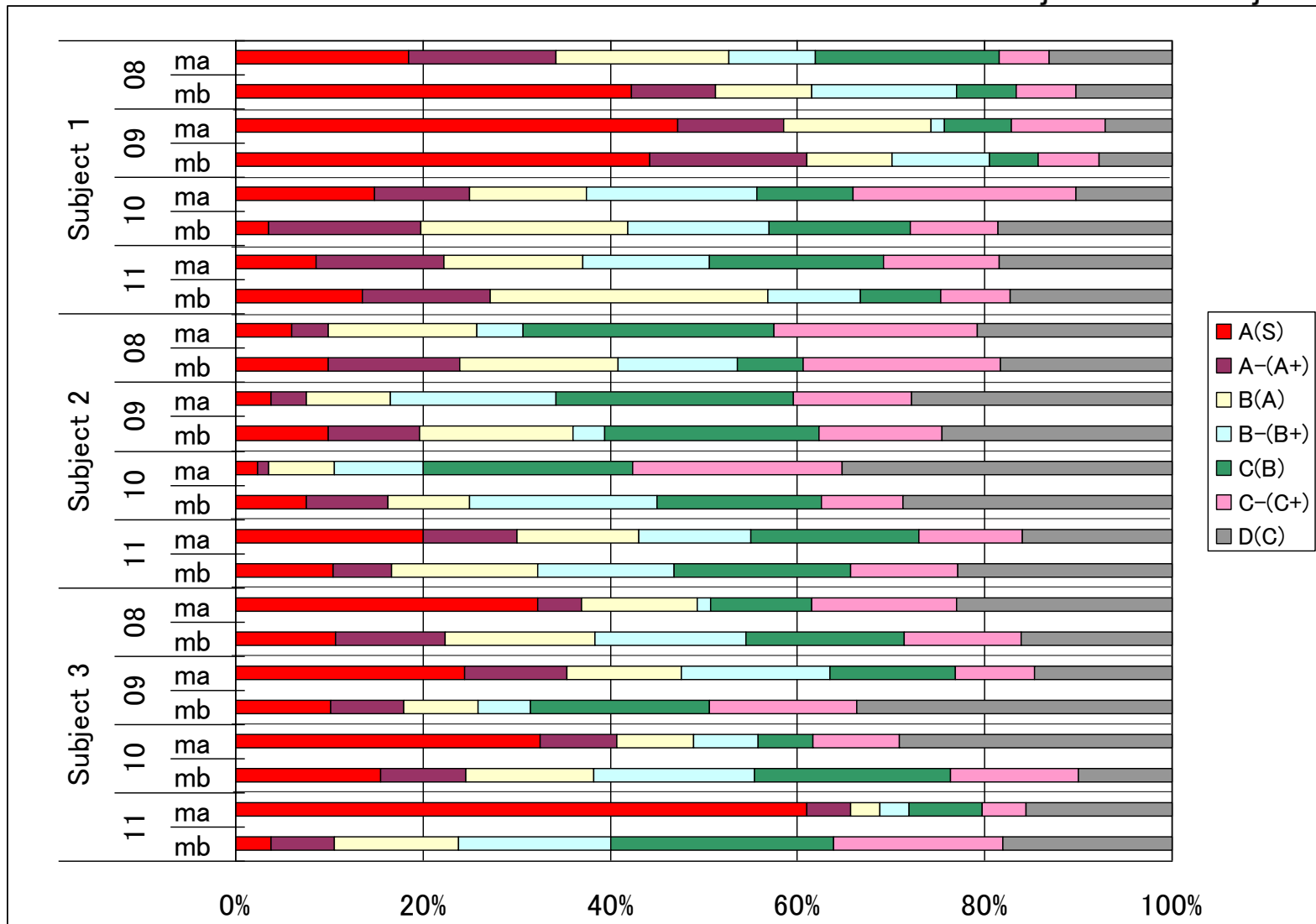
Seminar/Practice > Lecture

Major Basic : Information > Mathematics > Physics > Chemistry > Environment/Biology

Biases by Teachers

1subject, two classes, divided by students codes.
Same syllabus, Same textbook, different teachers.

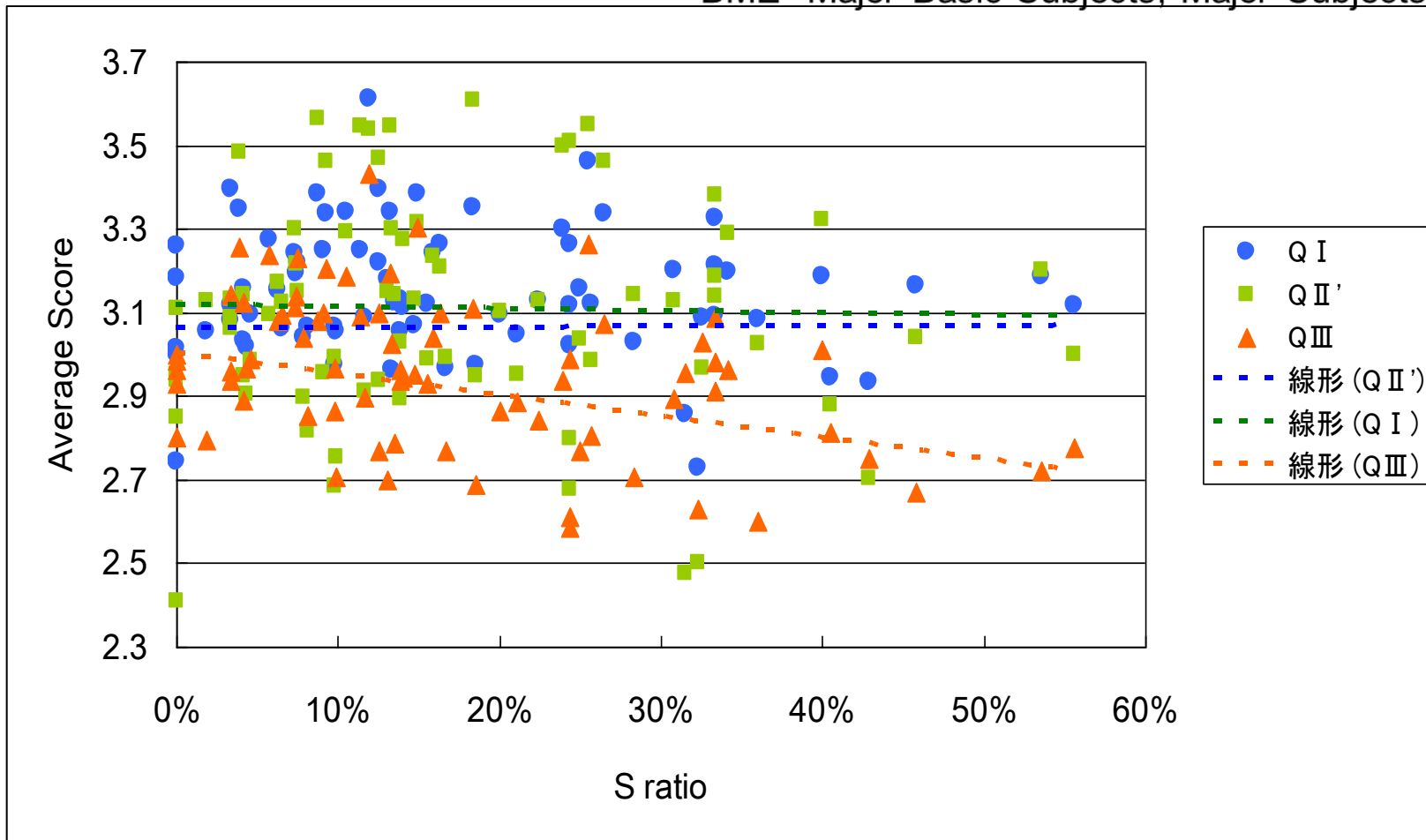
BME Major Basic Subjects



Difference is inexplicable by the uneven distribution of the students with/without readiness.

Relation with SET Score

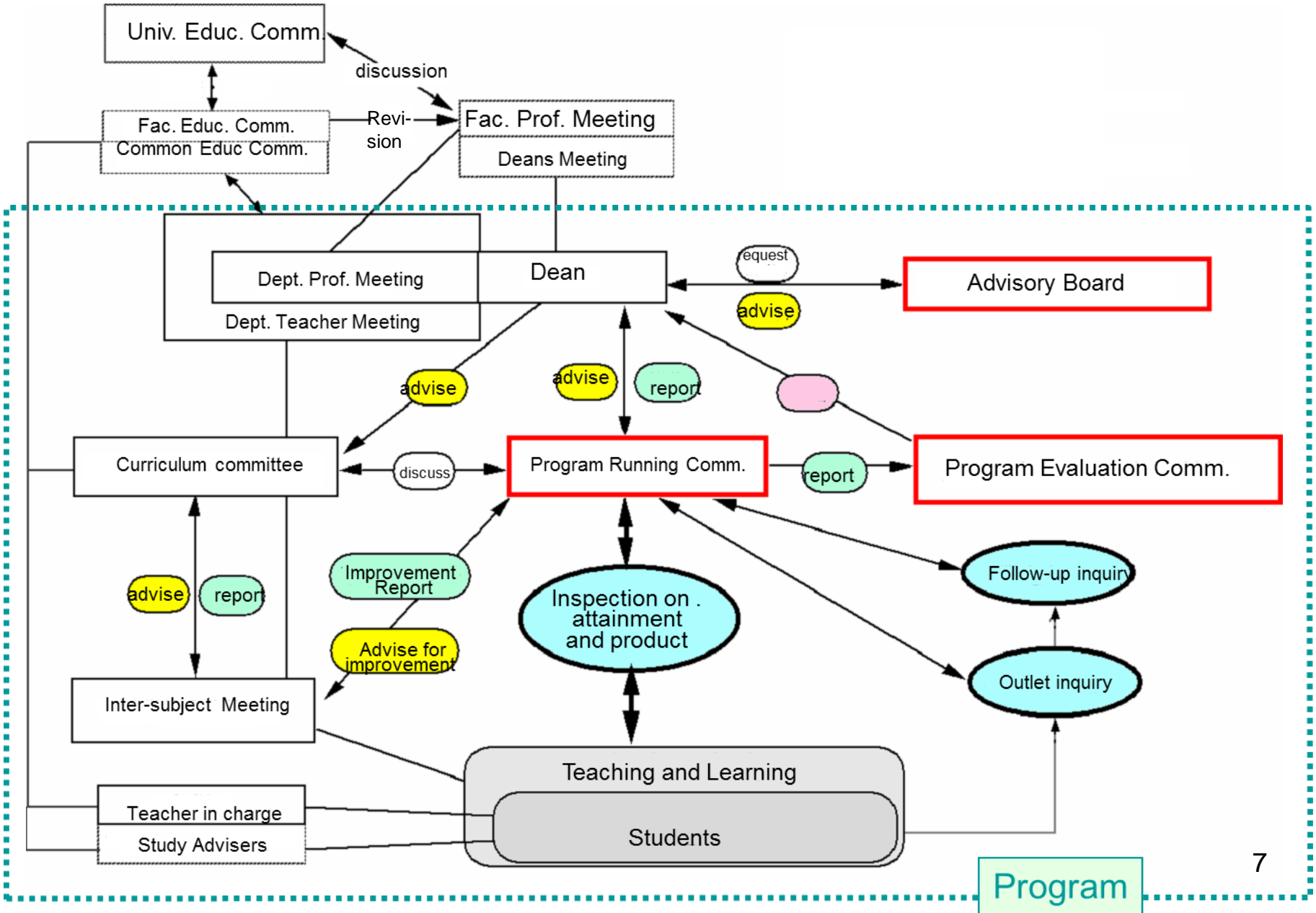
BME Major Basic Subjects, Major Subjects



Q I (about this class)
Q II (about the teacher)
Q III (about yourself)

2. Program Inspection System

Inspection System in JABEE ACE Program



Current System

University Evaluation Office

Educ. Center, FD Sec.

Fac. Prof. Meeting

Deans Meeting

Fac. Educ. Comm.

advise

Improvement Report

Dept. Prof. Meeting

Dean, Program Chair

Dept. Teacher Meeting

report

Evaluation

Outside Program Evaluation

advise

report

Inspection on attainment and product

SET

Alumni survey

Inquiry at graduation

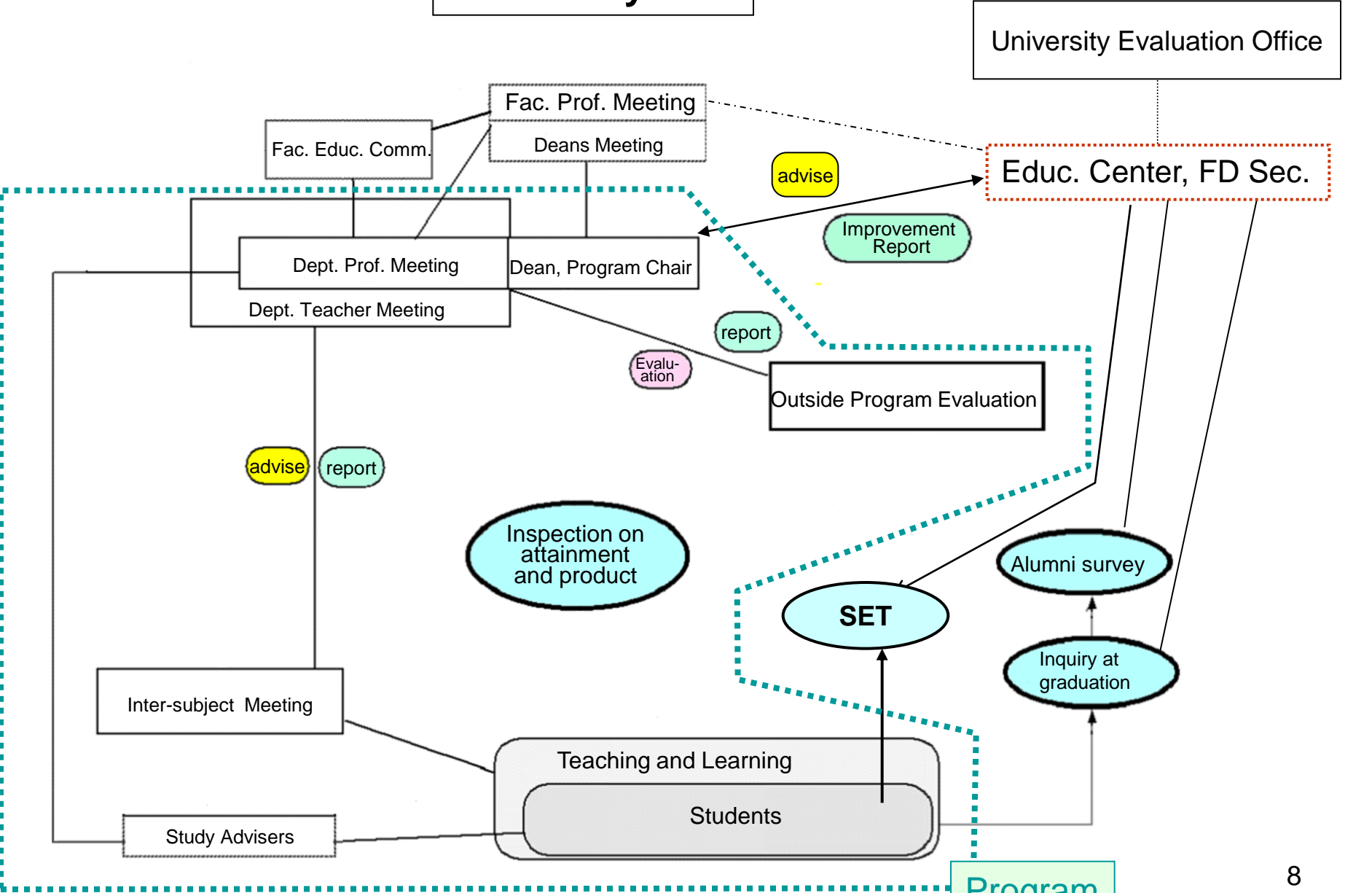
Inter-subject Meeting

Teaching and Learning

Students

Study Advisers

Program

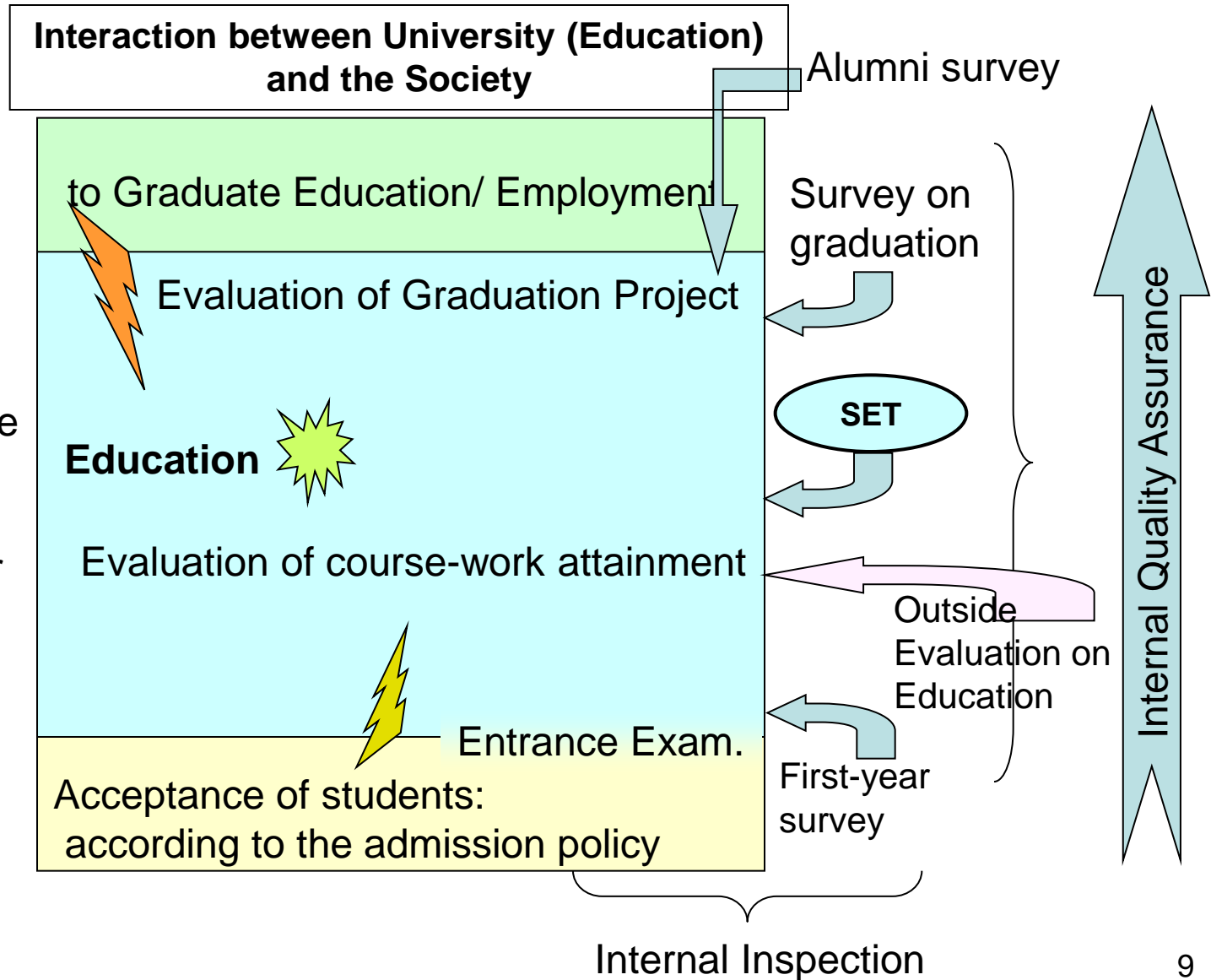


3. Evaluation and the Society

Employers don't believe attainment in University

Students believe the semi-automatic graduation after 4 years.

Strict internal evaluation will cause the decrease of applicants.





Employers
don't believe
attainment in
University.

- They want to evaluate the applicants by their own way.
 - Very long JOB hunting period.
- They call the applicants together even during the class term.
- Most of their “own way” is “presentation” and decision by majority.
 - Less reliable than the University Score (?!)
- They decide very early, while graduation is ambiguous.



Strict internal
evaluation will
cause the
decrease of
applicants.

- eg. JABEE universities can attract less applicants.
- If we do the Quality Assurance seriously,
 - we might not be able to attract students, whose quality and ability we can assure.
- Applicants dislike “hard-to-graduate” universities.



Students
believe the
semi-
automatic
graduation
after 4 years.

- Some student said “when you accepted me,
 - you must allow (let) me graduate!”
- To avoid complex troubles,
 - teachers will give passing grades even to unattained students.
- Office of academic affairs will almost automatically issue graduation-promising certificates.

University doubts the society, and the society doesn't believe universities.

(ONLY University “Brand” is reliable (?))

University must obtain the reliance on the degree by (serious) evaluation.

4. Visible and Invisible Aspects in the Current Evaluation System

Traditional Evaluation: Mainly “Knowledge” to reinforce skill and technique.

However: GPA score and performance of (graduation) project have deviation.
Some students are with higher GPA , but poor idea.
Some are with lower GPA , but good sense in project.

Graduation Project:
Interactive
Seminar/Practice and
more.
Integrated subject

How do we understand the fruits and attainment, which are not quantified?

Self-cultivation (Bildung), Creativity . . . Repeatedly described

2012.03 CCE - Univ. SC <Discussion Summary>
2011.04~ School Course Guidelines
2008.12 CCE <Report>
⋮
1998.10 UC <Report>

教育 (Japanese: kyou-iku, Chinese: jiào-yù)
⋮
教える(teach) 育てる(bring up, foster)

Thank you for your attention.