A new Proposal for the ABE School

USING COURSE ANALYSES TO SUPPORT COURSE DEVELOPMENT

Motivation

- *Produce world class graduates who are employable both in industry and as research students*

- KTH Development Plan:
    - "**Goal:** All activities at KTH are well-communicated and anchored in a **quality-assurance system that is built on the principle of steady improvement**"

- *How can we get Course Analyses to support this goal?*

Opinion Surveys

- Take "Yes, Prime Minister"

  - http://www.youtube.com/watch?v=3gMcZic1d4U

Today's Course Analyses

- Part A:
  - Exam Statistics, Grade Distribution, Pass-Rates
- Part B:
  - Survey Summary, Focus Group Discussion, Interviews
- Part C:
  - Head Teacher's Analysis

Potential Threats to Validity of Course Evaluations

- Administration:
  - Timing
  - Anonymity
  - Stated Purpose

- Course characteristics:
  - Elective/Compulsory
  - Class Size
  - Subject Matter
  - Pace of the Course

- Student characteristics:
  - Prior Interest in the Course
  - Gender
  - Expectations, relative to Subsequent Experience

Multiple (Possibly Conflicted) Purposes

- Goal 1:
  - Course Development & Improvement
- Goal 2:
  - Measuring Pedagogical Merit
- Goal 3:
  - Indicator for Student Choice

We focus on Goal 1: Course Development

- Concept of "Constructive Alignment" helps guide the relationships between:
  - Course Goals
  - Course Learning Activities
  - Course Assessment
  - Course Improvement
- Further, the emphasis of Constructive Alignment is on "deep" rather than "surface" learning.

Lessons from Constructive Alignment for Course Development at ABE

- Course Evaluations and Analyses should focus on:
  - Achievement of Learning Outcomes
  - The Learning Process Itself:
    - Time & Attention
    - Clarity of Expectations
    - Learning Strategies

How well does current practice implement Constructive Alignment?

- Varies by:
    - Department/Division
    - Knowledge/Experience of Individual Teachers
    - Incentives for Quality Teaching, Compared to Research

Expanding the Scope of Course Development to Program Development

- Student Involvement
  - Current Students (have already)
  - Alumni (see e.g. EAE)
- Example Questions:
  - "What worked well?"
  - "What do you use?"
  - "What do you wish you had gotten at KTH?"

- Industry Involvement
- Example Questions:
  - "What skills do grads have?"
  - "What do you wish they had?"
- Government
  - Changes should be in agreement with HSF

Preliminary Recommendations:
I. The Role of Planning

- Planning (and re-planning) needs to reflect the course analysis

- Needs to respond to Program-level feedback

- Allows explicit accounting for specific components of the course:
  - Goals
  - Activities
  - Assessment

Preliminary Recommendations
II. The Structure and Quality of the Questionnaire

- What questions don't work?
  - Unanchored opinion questions: "what do you think of lecturer *X*?"
- What questions work?
  - Anchored to specific goals, learning activities, and other aspects of course design
  - Provide actionable feedback
  - "Feedback comes back quickly..." (agree/disagree)
  - "Tackling the assignments really makes me think..." (agree/disagree)

Preliminary Recommendations
III. Using the Course Analysis

- A course in Real Estate Valuation

Case – using course analyses

■ Students from 2 different programmes learn how to value real estate in groups

Group 1

- All over the world
- 22,5 credits prep courses
- 3-4-5 scale grading
- Passed TOEFL

Group 2

- Mostly former USSR and the Balkans
- 7,5 credits prep courses
- P-F scale grading
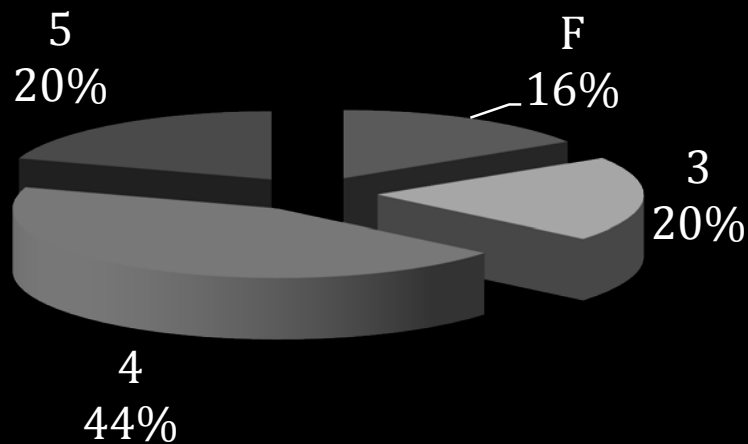- No TOEFL requirement, first time studying in English

Course Design (2005 – 2007)

- Lectures
(basic theory)

- Project work
(basic theory)

- Guest lectures
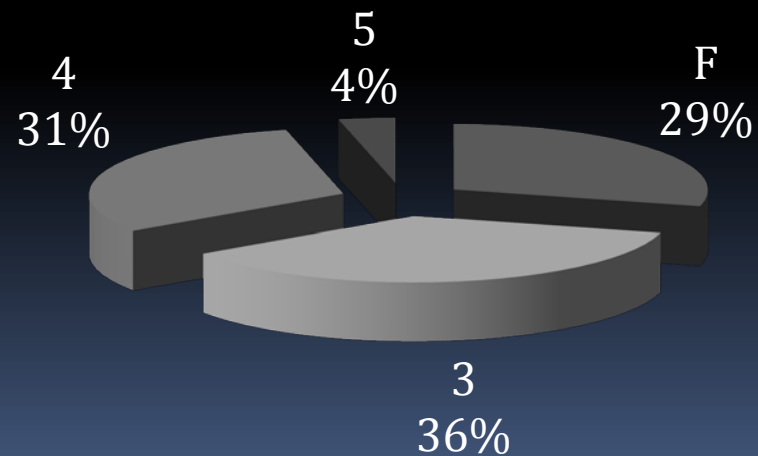
- Project presentation

- Exam

15

Final Grades 3-4-5 scale (2007)

Group 1

5
20%

F
16%

3
20%

4
44%

Similar to previous years

Group 2

4
31%

5
4%

F
29%

3
36%

Student Evaluations

- "The intention of the course was good, but because of some factors, like difference in background knowledge, it didn't satisfy my expectations."

- "It's better to change the lecturer of this course especially in this international program."

- "I have been in groups at Universities with people from many countries, worked in international firms, large and small projects.....[and more of the same]....and I have NEVER met such stupid, unmotivated people before!!!"

- "DO NOT put together the Master courses. No one made any friend with this experiment. The level they have is far too low with [Group 2], and the effort they put in is nearly 0 %. If you think you are tired of hearing this, you haven't even heard half of what happened."
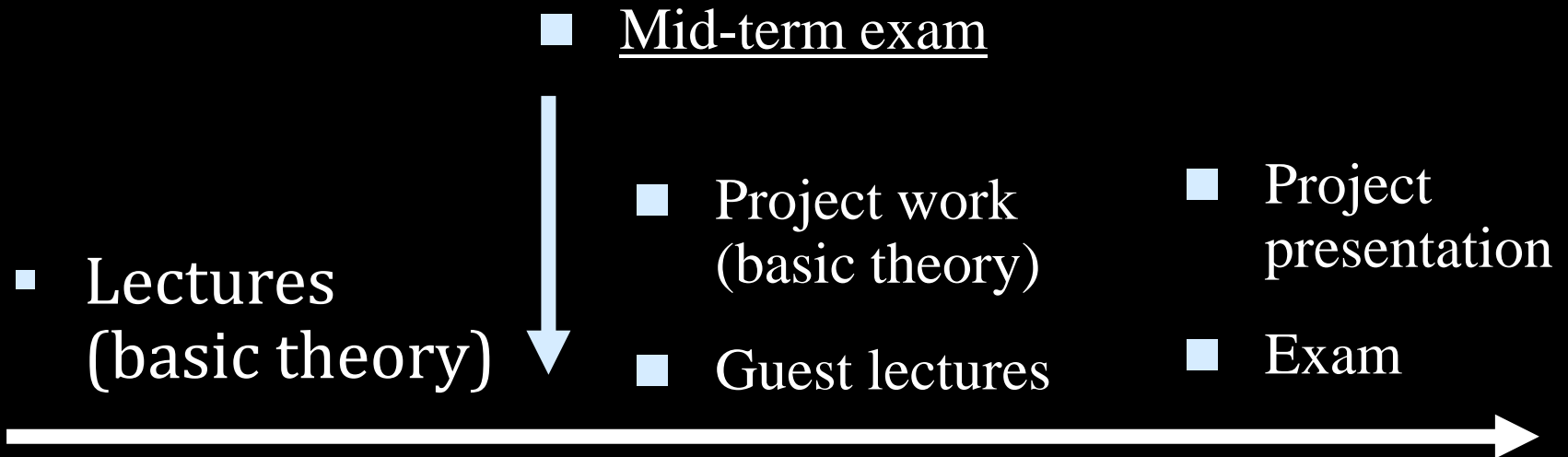
Differences in prior student knowledge made group work in the project difficult. Need to change the rules of assessment (Gibbs, 1992) to equalize prior knowledge before project.
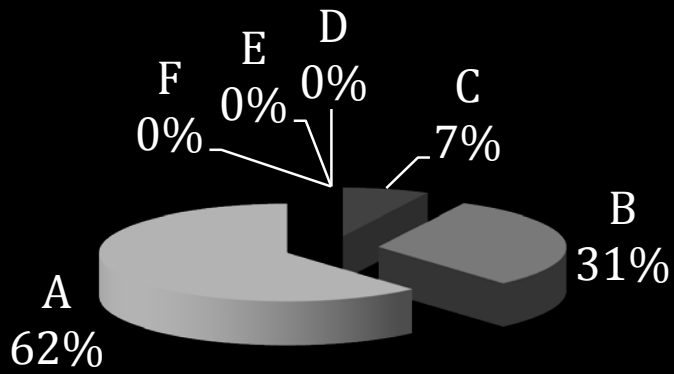
COURSES ANALYSIS

New Course Design (2008)

- **Mid-term exam**

- Lectures (basic theory)

- Project work (basic theory)
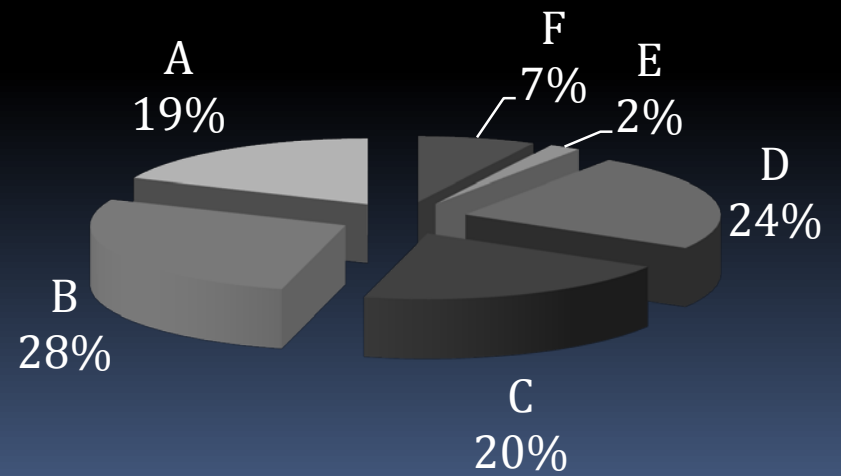- Guest lectures

- Project presentation
- Exam

- Changed grading:
  - Both groups graded on the A-F scale
  - Pass midterm and project -> grade E
  - Higher grades decided by final exam
- Remedial teaching for Group 2
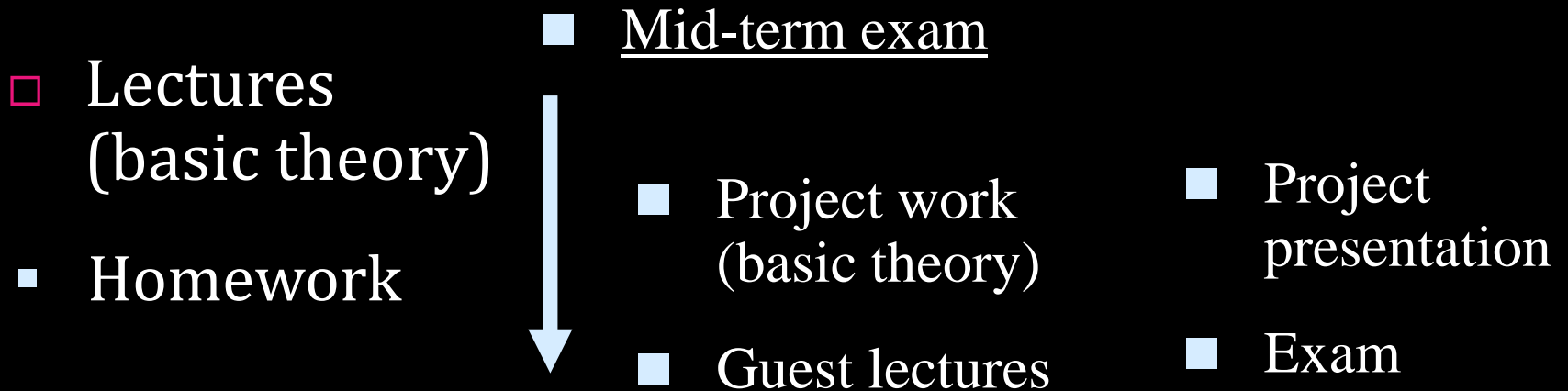
Grades

Group 1

Group 2

Feedback

- "So far it is the best course I have attended here at KTH ..."

- "The guest lecturers were also very interesting and their presentations complemented the lectures and the project. There, [...], should be a session where a summary linking the guest lectures and the course can be explored before the exam."

New Course Design (2009)

- **Mid-term exam**

□ Lectures (basic theory)

- Homework

- Project work (basic theory)

- Guest lectures

- Project presentation

- Exam

- Changed grading:
  - Homework, midterm and project -> grade E
  - Higher grades decided by final exam
- Again, remedial teaching for Group 2
- Training (not just lectures) in cross-cultural communication

Difference in average
midterm scores – 2 points

Grade	Distribution based on grades							
	Group 1		Group 2		Exchange students		Total	
	No.	Share (%)	No.	Share (%)	No.	Share (%)	No.	Share (%)
A	2	8	9	18	2	20	13	16
B	12	48	14	29	2	20	28	33
C	9	36	12	25	3	30	24	29
D	1	4	3	6	3	30	7	8
E			11	22			11	13
F	1	4					1	1
FX								
Total	25	100	49	100	10	100	84	100

Feedback

- "...the idea of the midterm exam was genius; it helped us to learn the concepts necessary for the project."

- "The project was really engaging and it tested our team working skills a lot. However, at the end of it, I learnt a lot from my colleagues and it helped me to appreciate the theory better."

- "Coursework arrangement was super!! It put us [under] a lot of pressure but the fruits were sweet!!"

- "I really enjoyed the Project working with 4 different guys from different countries and perhaps background. We started as enemies ended up as lovely big friends!"

- "Sometimes the things taught are not given sufficient time for students to master. It is important to have sufficient time for students to understand what is taught before moving forward. The teachers should look at the weak students as a reference rather than the best students before concluding things are clear to the students and moving on."
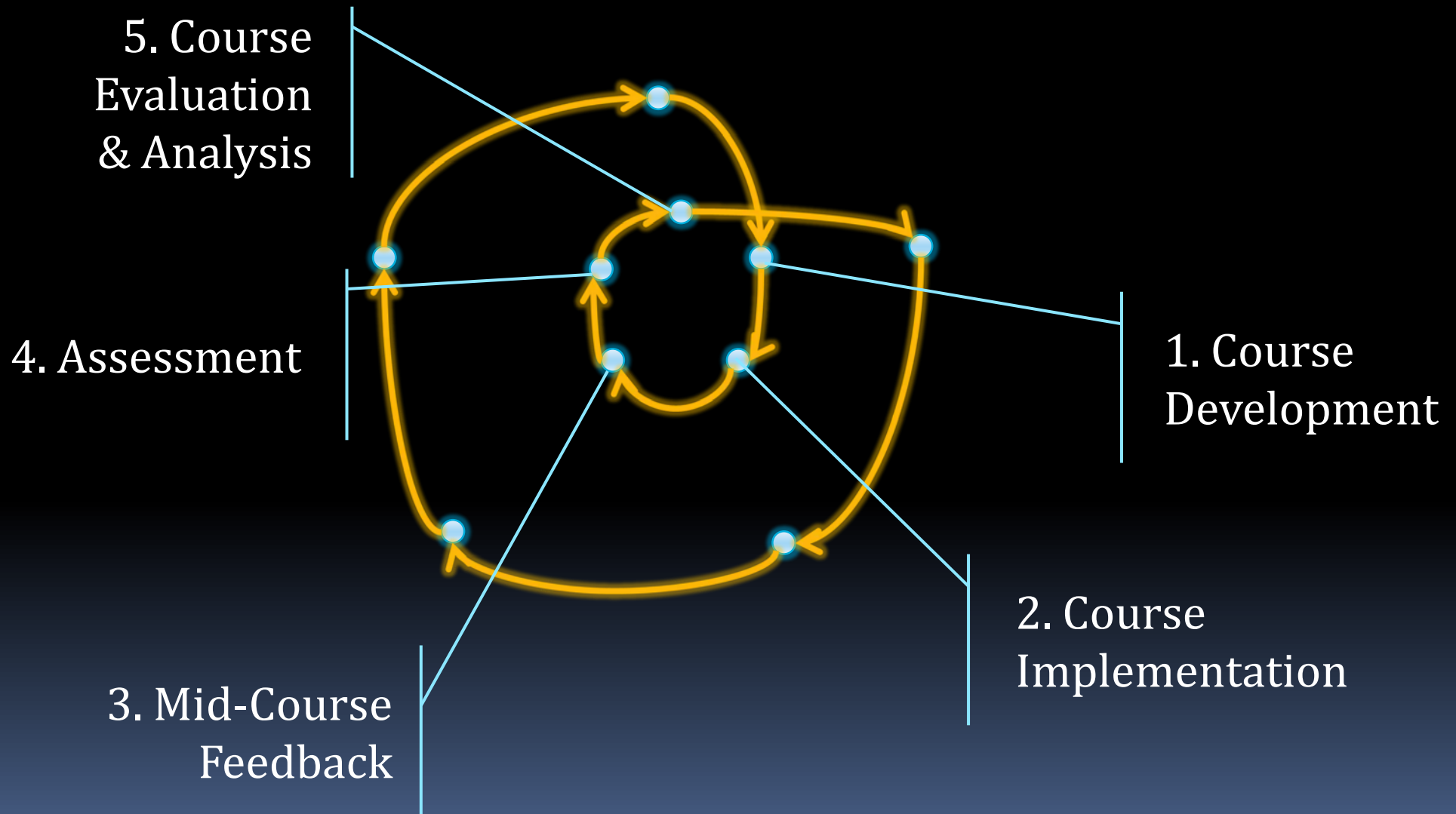
Feedback

- "Really appreciated most of the "design" of the course with mid-term for instance. However, at times you could feel quite overwhelmed by all the exercises, assignments etc."

- "The first part of the course felt very structured and motivating while the second felt too loose and uninspired".

- "Guest lectures lecturing about forest and the taxation system was extremely bad in speaking English. It was impossible to understand and learn anything from them".
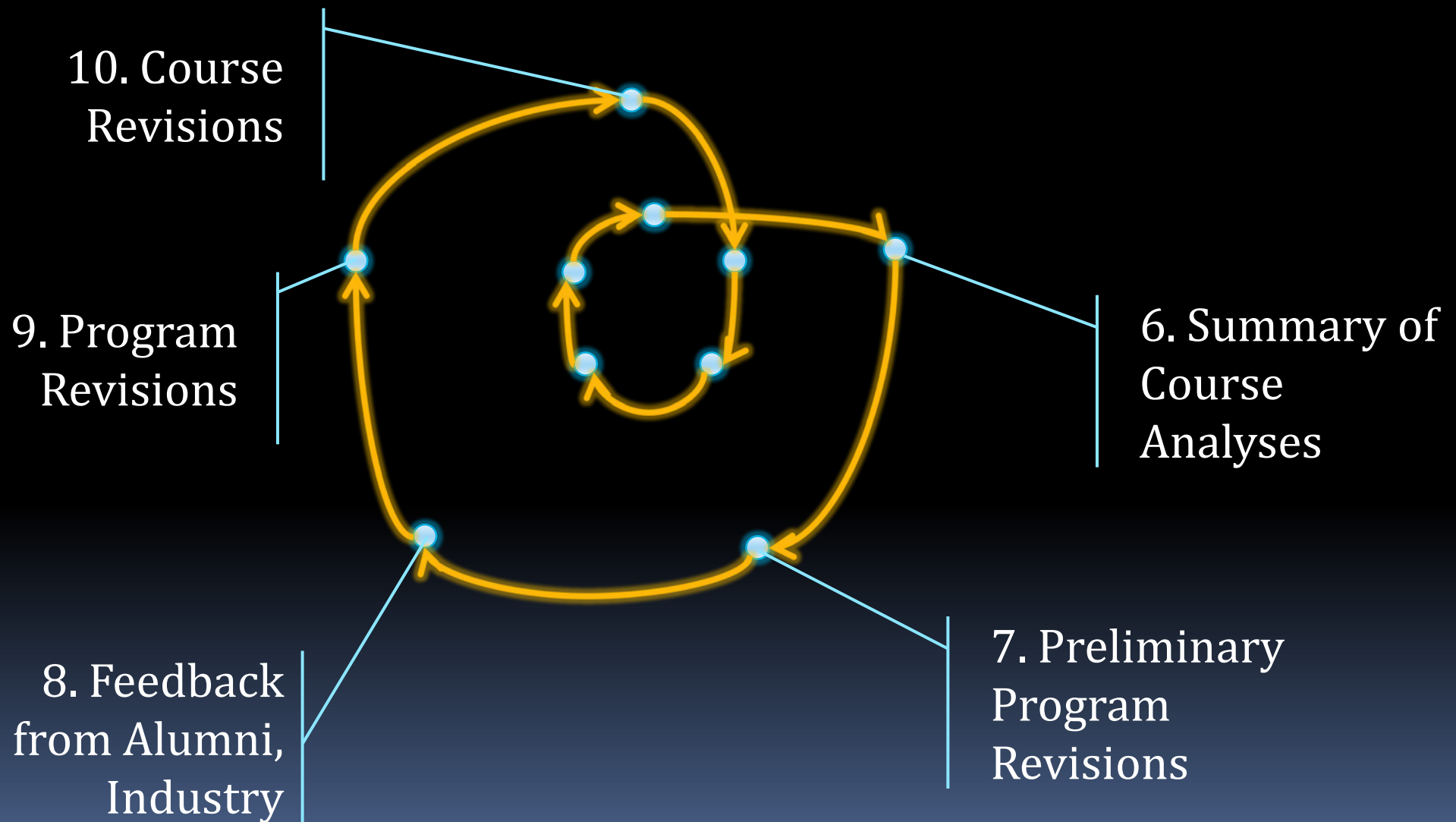
Preliminary Recommendations
IV. Linkage to Program Development

5. Course Evaluation & Analysis

4. Assessment

3. Mid-Course Feedback

1. Course Development

2. Course Implementation

Preliminary Recommendations
IV. Linkage to Program Development

10. Course Revisions

9. Program Revisions

8. Feedback from Alumni, Industry

6. Summary of Course Analyses

7. Preliminary Program Revisions

Preliminary Recommendations V. Multiple Purposes

- Goal 1: Course Development & Improvement
- Goal 2: Measuring Pedagogical Merit
- Goal 3: Factor behind Student Choice (?)

- The *Result* of Course Evaluations, at one time, responds to Goal 1

- The *Use* of Course Evaluations, over time, responds to Goal 2

Reflections

- A safe and constructive work environment brings out the best in teachers
→ A constructive course analysis process contributes to KTH's goals
- External peer-evaluators can contribute to course development
  - U.K., Netherlands, Denmark,…

Example: Assessment Experience Questionnaire

- Take 10 minutes, read the example questionnaire

Questions for Discussion

- How strong is your existing system?
- Feedback on the "Assessment Experience Questionnaire"?

Questions for Discussion

- What role should ABE play?
  - What resources do you need from ABE?
  - How standardized should the process be, across ABE?
  - What information can be aggregated to ABE-level?