Engaging Faculty and Students in Talking about Teaching and Learning
(Informed by Assessment Data)

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Assessment Data

- Knowledge Probe
- Classroom Assessment (minute paper)
- Mid-Term Review
- Student Management Team
- SGID & Peer Review

Knowledge Probe

- Example from MOT 8221
- What would you like to know about the students in your courses?

Participant Information
MOT 8221 Project and Data Analysis – Spring 2007

Name: __________________________
Current Title and Job Description: (Please append a recent resume)

Work Experience (describe briefly): (use additional space if necessary).

Previous Coursework/Experience in Project Management, Knowledge Management, Leadership, Engineering Systems, Industrial Engineering/Operations Research (IE/OR), Management Science, and Quality Management (Six Sigma/TQM):

For the following areas, please rank your level of understanding according to the following scale:
1 = Little or no coursework/self study/experience in this area.
2 = (Between 1 & 3).
3 = Moderate coursework/self study/experience in this area
4 = (Between 3 & 5).
5 = A great deal of coursework/self study/experience in this area.

Project Management 1 2 3 4 5
PMI-PMBOK 1 2 3 4 5
Knowledge Management 1 2 3 4 5
Leadership 1 2 3 4 5
Engineering Systems 1 2 3 4 5
IE/OR 1 2 3 4 5
Modeling/Simulation 1 2 3 4 5
Complex Adaptive Systems 1 2 3 4 5
Mgmt Science 1 2 3 4 5
Six Sigma/TQM 1 2 3 4 5

Computing Experience:
For each of the following, rate your proficiency and list any computer software:
1 = Never have used it.
2 = Know a little about it.
3 = Have used it some.
4 = Am very comfortable using it.

Rating    Specific Packages
Spreadsheet 1 2 3 4
Project Management 1 2 3 4
Statistical 1 2 3 4
Modeling/simulation 1 2 3 4
Data base 1 2 3 4
Programming language 1 2 3 4
Knowledge Map/Expert System 1 2 3 4

Expectations from the course (use additional space if necessary):

MOT 8221 – Spring 2007 – 27/30

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Spread  Q1  Q2  Q3  Q4  Q5  Q6  Q7
PM  Q1  Q2  Q3  Q4  Q5  Q6  Q7
PM&PMBCK  Q2  Mod/Sim  Q7
KMI  Q3  CAS  Q8
Leadership  Q4  MgmtSci  Q9
EngSys  Q5  6 Sigma  Q10
Knowledge Probe

What would you like to know about the students in your courses?
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Minute Paper

- What was the most useful or meaningful thing you learned during this session?
- What question(s) remain uppermost in your mind as we end this session?
- What was the “muddiest” point in this session?
- Give an example or application
- Explain in your own words . . .


Session Summary (Minute Paper)

Reflect on the session:

1. Most interesting, valuable, useful thing you learned.
2. Question/Topic/Issue you would like to have addressed.
3. Comments, suggestions, etc

4. Pace: Too slow 1 . . . . 5 Too fast
5. Relevance: Little 1 . . . 5 Lots
6. Format: Ugh 1 . . . 5 Ah

Session 1 Comments

- Most interesting – 2nd class where we broke up into new groups and worked on a fun and engaging project. It was a completely new format for me.
- Relevance of PM/KM across a wide range of businesses, exposure to PM literature and resources
- Group project – short project highlighted interesting group dynamics .. Most interesting as it provided hands on experience (mentioned by many)
- Experience of PM/KM concepts and theories were put into practice at what these concepts are (mentioned by many)
- Reflections on PM/KM in terms of key perspectives and key issues (mentioned by many)
- Relevance of the material to the field of PM. (mentioned by many)
- Interactive learning is useful. I like the active interaction
- Where to find out more information about PM. Learning more about PM. Overview of the books and their relevance (mentioned by many)

Q4 – Pace: Too slow 1 . . . . 5 Too fast
Q5 – Relevance: Little 1 . . . 5 Lots
Q6 – Format: Ugh 1 . . . 5 Ah

Q4 Q5 Q6
Session 1 Comments

- Most interesting – loved the group work – great for building teamwork [mentioned by many]
- That we will discuss knowledge management
- Constructive controversy [mentioned by many]
- Importance of recognizing time constraints when planning project
- Conflict management – how to deal with non-compliant team members
- Break out with people other than my group was excellent, fun to work with other MOT classmates [many mentioned]
- “Common Goal” requirement
- Project management stories from others
- Not addressed Questions – how to use constructive controversy in our own organization;
- How to handle difficult team member;
- How to manage debates [potential for conflict when it goes sour]
- Need a little more on deliberations for the course
- Difference between knowledge management and project management
- Leadership aspects of management
- More group activities
- Getting past team members/barriers to project moving on
- Other comments – ran out of time, could use less material in 1st class to give more time at end
- Please keep this up
- Speed less time going over syllabus
- Handouts could have been 2-up

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Student Management Team

A student management team will be used in this course to operationalize Total Quality Management principles. The attributes of student management teams are described below, and the operation of the team is based on shared responsibility:

Students, in conjunction with their instructor, are responsible for the success of any course. As student managers, your special responsibility is to monitor this course through your own experience, to receive comments from other students, to work as a team with your instructor on a regular basis, and to make recommendations to the instructor about how this course can be improved. (Nuhfer, 1990-1995).

Attributes of Student Management Teams

- 3 - 4 students plus teaching team.
- Students have a managerial role and assume responsibility for the success of the class.
- Students meet weekly; professor attends every other week. Meetings generally last about one hour.
- Meet away from classroom and professor’s office.
- Maintain log or journal of suggestions, actions and progress.
- May focus on the professor or on the content.
- Utilize group dynamics approach of TQM.
Chapter 8: Student Management Teams: The Heretic's Path to Teaching Success by Edward B. Nuhfer


### Students as Co-Designers

- Graduate TAs participating as members of the teaching team
- Undergraduate TAs (near peers) as members of the teaching team

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### Approaches to Cooperative Learning in CE 4101W & 4102W

- Informal – Book Ends
- Formal Task Groups – projects in class and outside
- Cooperative Base Groups (Cohort Groups)
- Student Management Team

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### Active Learning: Cooperation in the College Classroom

- **Informal** Cooperative Learning Groups
- **Formal** Cooperative Learning Groups
- **Cooperative Base Groups**

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### Book Ends on a Class Session

- 10-12 Minute Lecture
- 2-4 Minute Partner

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### Cooperative Learning Task Groups

WebCT Peer Review & Feedback

- Students work in Base Groups
- WebCT provides private message areas for each group
- Opportunity to use the Model-Practice Feedback Loop
- Feedback to whole group rather than individuals
  - More information
  - More models and feedback to help students

Feedback Posting Sample

Model-Practice-Feedback Loop

- Cooper and Robinson [18] surveyed the literature in higher education and found that “…the model-practice-feedback loop is among the most powerful instructional strategies available to teachers at all levels.”
  - teacher modeling
  - student practice with multiple opportunities
  - descriptive feedback on the quality of their performance

WebCT Discussion Area

Detailed Feedback to the Group

Successes & Challenges

- Incorporating formal cooperative groups with the peer review process offered the students:
  - access to more examples of writing
  - access to comments on both their own papers and those of their group members
- Students need more explicit connections between the writing for class and the writing they will be doing in the workplace.
  - Summer 2004 we incorporated an interview assignment to help students make this connection
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The biggest and most long-lasting reforms of undergraduate education will come when individual faculty or small groups of instructors adopt the view of themselves as reformers within their immediate sphere of influence, the classes they teach every day.

K. Patricia Cross

It could well be that faculty members of the twenty-first century college or university will find it necessary to set aside their roles as teachers and instead become designers of learning experiences, processes, and environments.

James Duderstadt, 1999