

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

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January 2007

Assessment Data

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

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Knowledge Probe

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

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Participant Information

MOT 8221, Project and Knowledge Management, Spring 2007

Name _____

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

Work Experience (describe briefly): (see 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 (MS)

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 = 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 = Knows 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

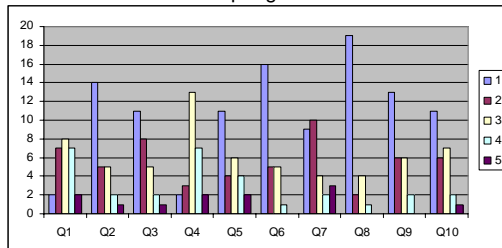
Programming language 1 2 3 4

Knowledge Map/Expert System 1 2 3 4

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

4

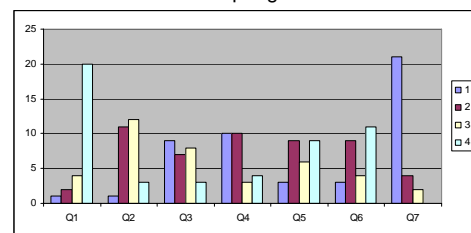
MOT 8221 – Spring 2007 – 27/30



PM	Q1	IE/OR	Q6
PMI-PMBOK	Q2	Mod/Sim	Q7
KM	Q3	CAS	Q8
Leadership	Q4	MgmtSci	Q9
EngSys	Q5	6 Sigma	Q10

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MOT 8221 – Spring 2007 – 27/30



Spread	Q1	DB	Q5
PM	Q2	Prog	Q6
Stat	Q3	KM/ES	Q7
Mod/Sim	Q4		

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Participant Information
MOT 8221, Spring 2006

Name _____

Work Experience (describe briefly): (use back if necessary)

Previous Coursework/Experience in Project Management, Knowledge Management, 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:

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Project Management	1	2	3	4	5
Knowledge Management	1	2	3	4	5
PMI/PMBOK	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
Mgmt Science	1	2	3	4	5
Six Sigma/TQM	1	2	3	4	5

Computing Experience:

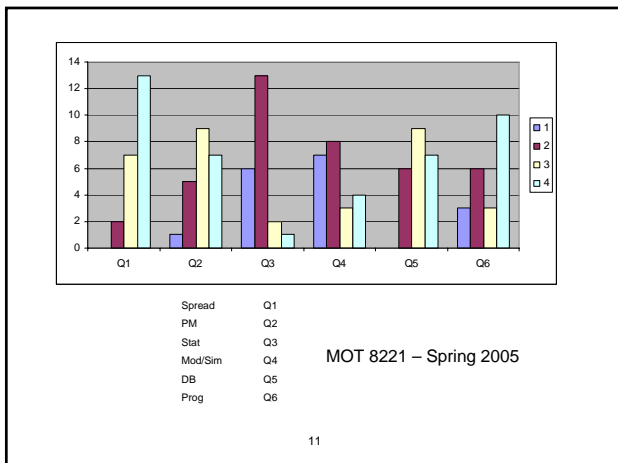
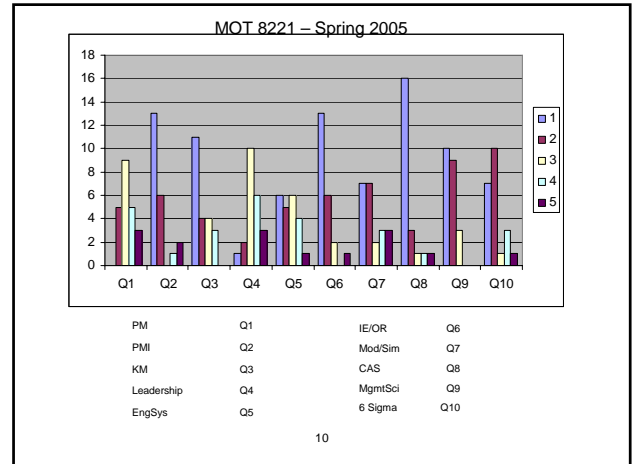
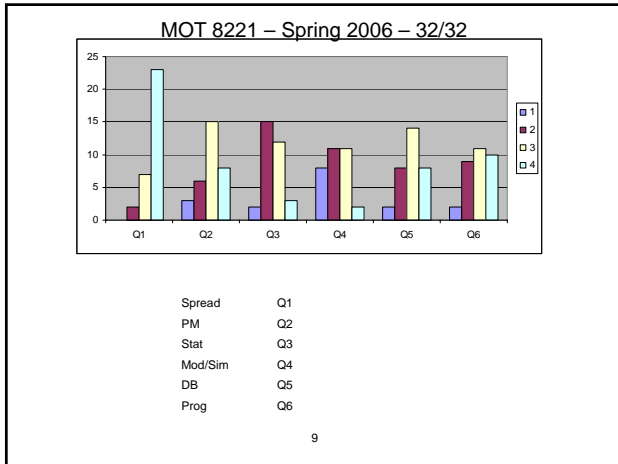
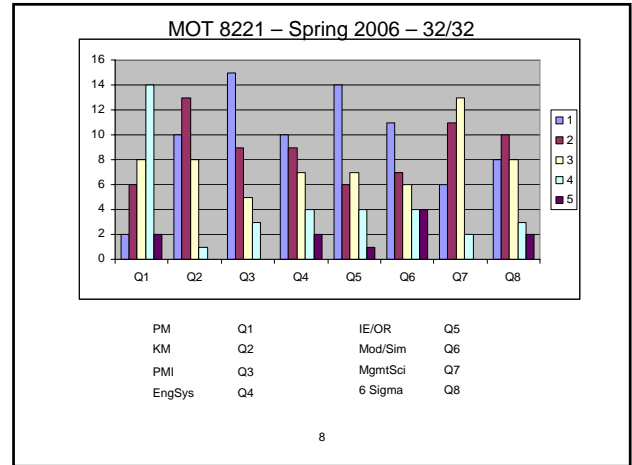
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	Rating	Specific Packages
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Project Management	1 2 3 4	
Statistical	1 2 3 4	
Modeling/Simulation	1 2 3 4	
Database	1 2 3 4	
Programming language	1 2 3 4	

7

Expectations from the course (use back if necessary):



Knowledge Probe

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

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Assessment Data

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- **Classroom Assessment (minute paper)**
- Mid-Term Review
- Student Management Team
- Peer Review

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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 . . .

Angelo, T.A. & Cross, K.P. 1993. Classroom assessment techniques: A handbook for college teachers. San Francisco: Jossey Bass.

14

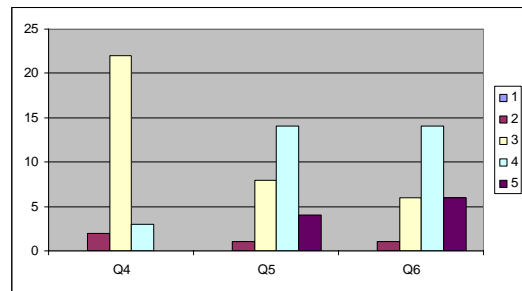
Session Summary (Minute Paper)

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

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MOT 8221 – Spring 2007 – Session 1



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

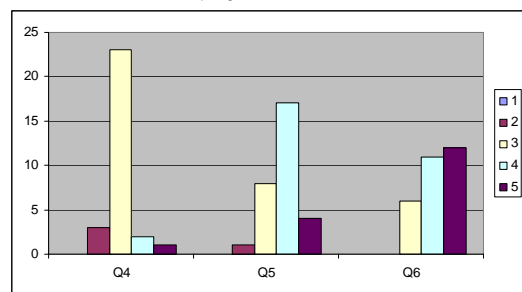
16

Session 1 Comments

- **Most interesting** – 1st class where we broke up into new groups and worked on a fun and engaging project. It's a completely new format of class for me
- Relevance of PMKM 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)
- Relate project management concepts to everyday tasks, Engineering project and relating it to PM
- Intro to KM, KM concepts and knowing that we will be looking at what these concepts are (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)
- The pain curve
- The scope of the course helped
- That you can't expect to get it all (cost, time & performance)
- Other aspects exist for PM, Different schools of thoughts on PM
- Distributed intelligence concepts
- The volume of material is probably not going to allow as much in depth detail into certain areas
- **Not addressed/ Questions** – project management modeling techniques
- Relate resource management to project management when resources are shared
- Looking forward to further dialogue, especially concerning adaptive and extreme project mgmt. More input on extreme PM. (mentioned by many)
- I would suggest a better lead into the group projects. Discuss the skills, then practice in group
- Like to see best practice to handle different situations in the project management life cycle
- History of PM
- To understand PMKM in more depth. More on KM. More PM info.
- No questions yet, looking forward to next class
- Virtual team management, Technical project vs non-technical PM
- There seems to be many form templates that are in the book. But they don't say why or what value they serve after the project is over or later on in the project
- Papers and course expectations seem complex
- Understand some of the problems that occur during project planning
- A comparison of the various types of projects, e.g., construction, engineering, software
- More info on R&D/innovation mgmt.
- More detail around resource conflicts
- **Other comments** – went a bit fast – probably due to the complexity & content (amount), regarding course assignment overview
- Great deal of literature listed in syllabus – maybe too much
- enjoyed it. Great start. Good starting class. Refreshing class structure. I liked the exercise. Liked the hands-on exercise
- PERT/CPM example to be included?
- Print out of slides helpful but would like online before class (slides were posted about 2 days prior)
- Will we learn about specification writing?
- We could use some real world PM case studies
- The quote "tomorrow's corp. is a collection of projects" seems, in my long experience, very inaccurate
- More background on ER & ERP would be helpful
- Felt some reading rehearsed some points
- It was a very useful session – learned about basic concepts of PM from the "lower" exercise
- I can grasp the concepts easily
- More hands on and group work
- Scope seems too broad as indicated by readings (lots) and comments of skimming or skipping portions

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MOT 8221 – Spring 2006 – Session 1



Q4 – Pace: Too slow 1 5 Too fast
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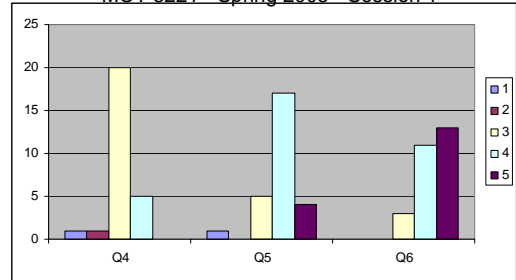
18

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
- Reminded about universal importance of project management and value of constructive conflict
- 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 debate (pitfalls/tactics) when it goes sour
- Non-optimal project strategies – practical
- Need a little more on deliverables 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
- I like this style very much [Many mentioned this]; engaging, instructive, fun
- Please keep this up
- Spend less time going over syllabus
- Handouts could have been 2-up

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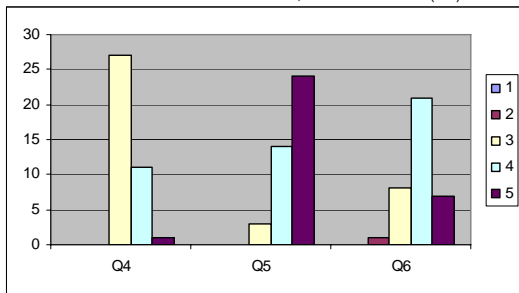
MOT 8221 - Spring 2005 - Session 1



Q4 – Pace: Too slow 1 5 Too fast
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20

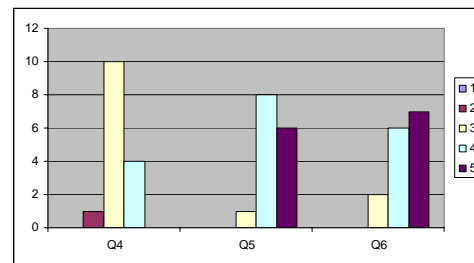
UTM PreConf – November 26, 2007 – Session 1 (am)



Q4 – Pace: Too slow 1 5 Too fast
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 Q6 – Format: Ugh 1 5 Ah

21

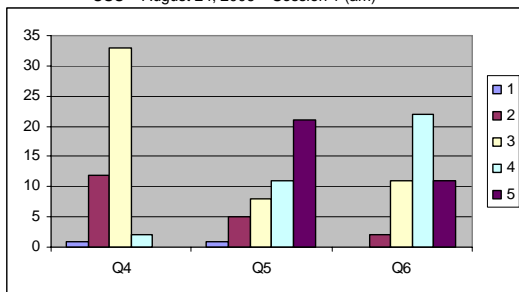
Mn/DOT Essential Skills for Project Managers May 2, 2005



Q4 – Pace: Too slow 1 5 Too fast
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22

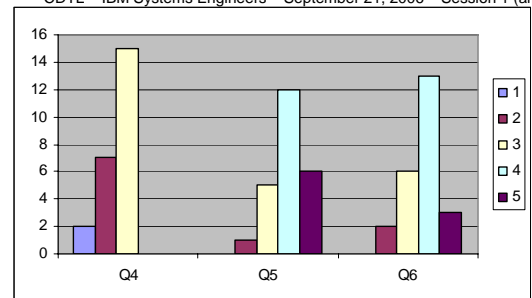
USU – August 24, 2006 – Session 1 (am)



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

23

CDTL – IBM Systems Engineers – September 21, 2006 – Session 1 (am)



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

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Assessment Data

- Knowledge Probe
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- **Mid-Term Review**
- Student Management Team
- Peer Review

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Mid-Term Review

UNIVERSITY OF MINNESOTA
University Course Evaluations

Sample Form

Student Evaluation of Teaching (SET) - Early Semester Form B

The purpose of this survey is to provide the instructor with information that may help to improve this class. The results will be reported only to the instructor; they will not be used in tenure, promotion, and salary decisions. Your thoughtful written comments are especially requested.

Doubtful Marginal Fair Good Excellent

1 2 3 4 5

1 Your understanding of what is expected of you in this course.

2 The instructor's clarity in presenting or discussing course material.

3 The instructor's use of examples or illustrations.

4 The instructor's encouragement of students to think about course material.

5 The instructor's ability to speak clearly and audibly.

6 The instructor's success in getting you interested or involved.

7 The instructor's availability to answer questions or provide help.

8 The instructor's respect and concern for students.

9 Your comfort in asking questions or expressing an opinion in class.

10 Helpfulness of feedback on assignments or class work.

11 Degree to which evaluation procedures (e.g., exams, quizzes) measure your knowledge and understanding.

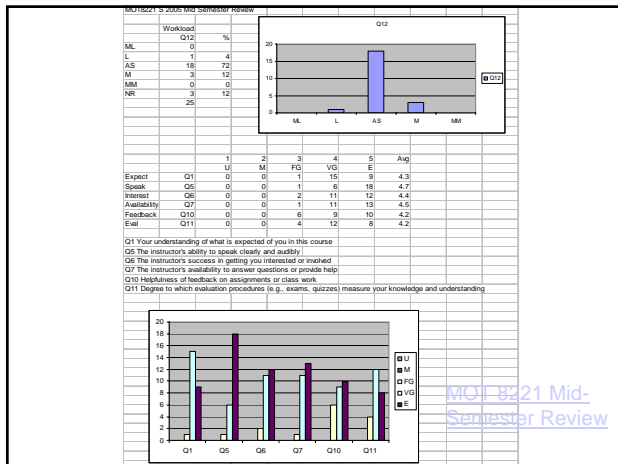
Mark How About the Mark

Less same more

1 2 3 4 5

12 How much does the amount of work required in this class compare with that in similar classes you have taken?

<http://eval.umn.edu>



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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).

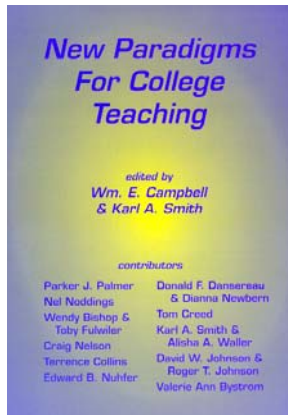
29

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.

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Chapter 8: Student Management Teams: The Heretic's Path to Teaching Success by Edward B. Nuhfer



Wm. Campbell & Karl Smith. *New Paradigms for College Teaching*. Interaction Books, 1997.

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

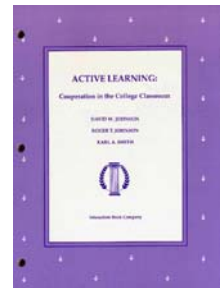
- Informal – Book Ends
- Formal Task Groups – projects in class and outside
- Cooperative Base Groups (Cohort Groups)
- Student Management Team

Maximum Effectiveness in Large Classroom Environments
Smith & Kampf 9/29/2004



Active Learning: Cooperation in the College Classroom

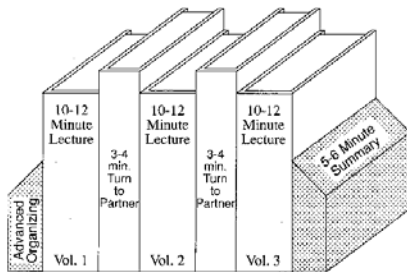
- **Informal** Cooperative Learning Groups
- **Formal** Cooperative Learning Groups
- Cooperative **Base** Groups



Maximum Effectiveness in Large Classroom Environments
Smith & Kampf 9/29/2004



Book Ends on a Class Session



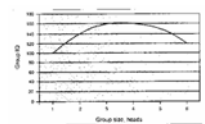
Maximum Effectiveness in Large Classroom Environments
Smith & Kampf 9/29/2004



Cooperative Learning Task Groups



Perkins, David. 2003. *King Arthur's Round Table: How collaborative conversations create smart organizations*. NY: Wiley.



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

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WebCT Discussion Area

Topic	Unread	Total	Status
All	0	642	
Mail	0	44	public, unlinked
Message	0	0	public, unlinked
Course 1	0	31	course, unlinked
Course 2	0	130	course, unlinked
Course 3	0	29	course, unlinked
Course 4	0	81	course, unlinked
Course 5	0	37	course, unlinked
Course 6	0	22	course, unlinked
Course 7	0	49	course, unlinked
Course 8	0	52	course, unlinked
Course 9	0	36	course, unlinked
For students only	0	1	course, unlinked
For teachers only	0	2	public, unlinked

Maximum Effectiveness in Large Classroom Environments
Smith & Kampf 9/29/2004



Feedback Posting Sample

Subject: Problem Based Memo Feedback

Message no. 114
Posted by Tan Eddy (CE4191W_04_1) on Friday, March 5, 2004 15:29

To: Group 6

Hi Group 6 -

Great work. I commented on your paper as a whole, including points of each of your papers as a whole, and then commented on each of the papers in the same way as the message. Everyone who posted in the same way as the message. I have seen the attached paper and comment to help you refine your problem based assignments in your progress.

Attachments: [Feedback.doc](#), [Feedback](#)

Attachments: [Feedback.doc](#), [Feedback](#)

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Detailed Feedback to the Group

Attachments: [Feedback.doc](#), [Feedback](#)

one example of an outline that needs more details to be effective. List:

1. **Outline**
 2. Problem Purpose Statement
 3. Introduction
 4. Content
 5. Scope
 6. Progress statement
2. **Discussion**
 3. Findings
 4. Conclusions
 5. Recommendations
3. **Discussion**
 4. Background of problem
 5. Findings
 6. Conclusions and solutions
 7. What did you learn from the problem?
 8. What did you learn from the problem?
 9. Making Paragraph (using your conclusions)

How could you get control in best? Two main points should be explicitly stated here, not a general format. Use Student A's paper for a good example of an outline that contains content.

Content:

Here, the key was having a clear problem based statement. You did a fantastic job of including one, but could still use some refinements. For example:

The Davis Academy is having difficulties with sound being transmitted from one dance studio to another.

It is not clear to me if it could be because we don't know whether you are trying to transmit sound and hearing problems with the transmission to you are having some other sound transmission that you could like to elaborate. How can you be specific about the problem on these sound multiple ways to understand it?

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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

Maximum Effectiveness in Large Classroom Environments
Smith & Kampf 9/29/2004



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

Maximum Effectiveness in Large Classroom Environments
Smith & Kampf 9/29/2004



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The screenshot shows the CTLS website with a navigation menu on the left and a main content area. The main content area is titled "SGID: Small Group Instructional Diagnosis" and includes a sub-header "A consensus approach to student feedback". Below this, there is a section "What is an SGID?" which explains the process. On the right side, there are several quotes from students and faculty. The navigation menu includes sections for Services, Workshops, Programs, For Faculty, For Graduate Students, Resources, Newsletters & Essays, and About Us.

The screenshot shows the CTLS website with a navigation menu on the left and a main content area. The main content area is titled "PEER REVIEW OF TEACHING" and includes a sub-header "Introduction". Below this, there is a section "The Purpose of This Site" which explains the process. On the right side, there are several quotes from students and faculty. The navigation menu includes sections for Services, Workshops, Programs, For Faculty, For Graduate Students, Resources, Newsletters & Essays, and About Us.

45

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 46

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

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