

IPRO Knowledge Management and Assessment

IPRO 338 & 339

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IPRO Problems Addressed

What are IIT students getting from IPROs?

How do IPRO students learn about their problem and about solving their problem?

How do you help IPRO students perform better?

IPRO Team Briefing Sessions

- Learning Objectives
- Deliverables
- IPRO Day Deliverables
- Project Reporting System (PRS)
- Yahoo! Groups
- Student and Faculty Learning Objective Survey
- IPRO OFFICE Liaison



IPRO LEARNING OBJECTIVES

1. Develop and Strengthen
Multidisciplinary Teamwork Skills
Learn more about other disciplines
Teach others about your own discipline
2. Effective Use of Communication
Build verbal, written and visual communication skills
How to communicate your ideas to your peers
3. Effective Project Management
Delegating tasks and responsibilities
4. Effective Engagement in Real World
Problem Solving
Tasks realistic to problems faced in current work environments
5. Gain a desire for life long learning



IPRO PROJECT DELIVERABLES

Project Plan Report

Background

Purpose

Methodology

Midterm Progress Report

Goals and Methodology

Changes Project Plan

Barriers or Problems

Final Project Report

Team's results and accomplishments

Conclusions and recommendations for next steps in project

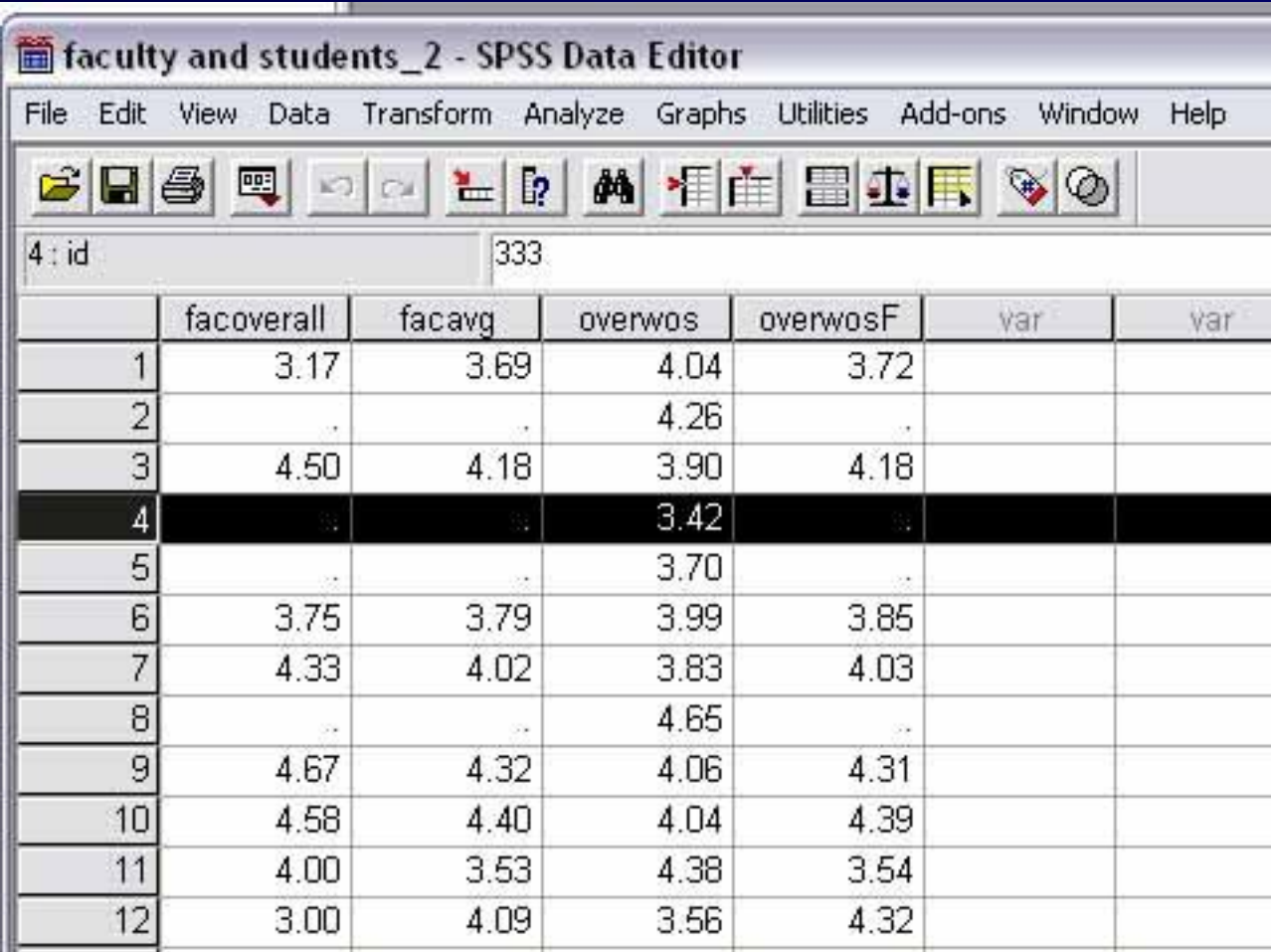
Team Website

IPRO Team Debriefing Sessions

- Student Survey
- Faculty Learning Objectives Survey
- Interactive Q/A Session on the IPRO Learning Objectives and improving IPROs

Debriefing Survey Data Analysis

339 Team used SPSS software for data analysis



The screenshot shows the SPSS Data Editor window titled "faculty and students_2 - SPSS Data Editor". The menu bar includes File, Edit, View, Data, Transform, Analyze, Graphs, Utilities, Add-ons, Window, and Help. The toolbar contains various icons for file operations and data manipulation. The data grid shows 12 rows of data. Row 4 is highlighted in black. The columns are labeled: id, facoverall, facavg, overwos, overwosF, var, and var. The values for row 4 are: id=333, facoverall=., facavg=., overwos=3.42, overwosF=., var=., and var=.

	facoverall	facavg	overwos	overwosF	var	var
1	3.17	3.69	4.04	3.72		
2	..	..	4.26	..		
3	4.50	4.18	3.90	4.18		
4	..	..	3.42	..		
5	..	..	3.70	..		
6	3.75	3.79	3.99	3.85		
7	4.33	4.02	3.83	4.03		
8	..	..	4.65	..		
9	4.67	4.32	4.06	4.31		
10	4.58	4.40	4.04	4.39		
11	4.00	3.53	4.38	3.54		
12	3.00	4.09	3.56	4.32		

Data Analysis

Using SPSS, the team:

- Input the data from spring 2004 surveys into the program
- Ran tests between variables to find and analyze correlation's
- Analyzed results for recommendations

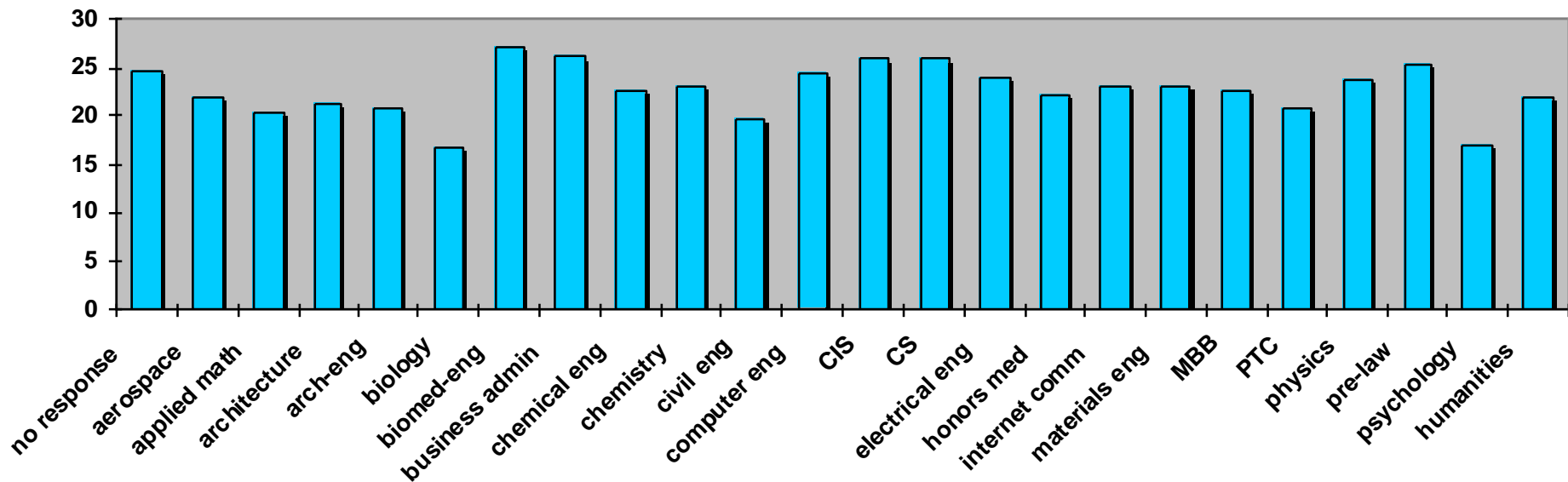
Results

- No correlation between faculty assessment data and IPRO Day scores
- Relationship between IPRO students assessment data and IPRO Day team judging scores
- No correlation between faculty and student learning objective scores

Assessment Reports

The Team created reports for the IPRO office, IPRO faculty and reports to go onto the Project Reporting Site. These reports will be used to help improve IPROs.

Survey Score and Major



Above: Graph of learning objective assessment scores across majors

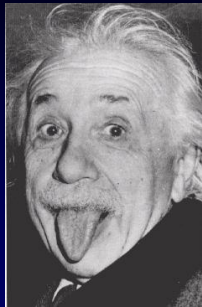
Problems with Knowledge Transfer in the IPRO Program



- Inter-team communication



- Continuity between semesters



- Locating experts



Introducing iKNOW

- iKNOW?
 - Web-based knowledge management system for IIT's IPROs.
 - IPRO Teams submit all data, research and reports to system for future use and
 - Reference expert resources used to produce each deliverable.
 - Core of iKnow concept and system comes from two previous IPRO 338 teams, fall 03 and spring 2004

Improving iKNOW

- Summer 2004 Tasks
 - Complete iKNOW system to cover functional requirements
 - Conduct functional, performance and usability testing.
 - Create a roll-out plan to begin to implement iKNOW in Fall 2004
 - Populate the iKnow database

Functional Testing of iKnow



What you want



What you get

Ensure that KMS is working as desired.

How Do You Instruct Students To Do It Better?

- Develop IPRO team self-help web sites using Topiary Software Personal Pro
- http://iproprs.iit.edu/presentations/Ivw_Introduction_100.html

IPRO 338/339 Topiary Applications

- Creating verbal and visual presentations
- Building an IPRO website
- Creating an IPRO Day Abstract

Topiary Task Accomplishments

- Researched 3 self help topics to become “Subject Matter Experts”
- Transformed “Knowledge” into logic for building Personal Pro application
- Personal Pro “self-help” websites were generated by technical team

Other Summer 2004 team tasks

- Developed IPRO Alumni Survey
 - Scheduled for data gathering in August 2004
- Evaluated available internet-based IPRO team collaborative communication services
 - Recommendation: Continue to use Yahoo! Groups and add as a second option SmartGroups

Future Tasks for IPROs 338/339

- Continue to fill the IPRO iKnow Library
- Entice IPRO students to participate in the iKnow creation processes and use the iKnow system as it becomes available
- Add more PPro self-help web sites and user test the sites available to IPRO students
- Continue assessment analysis and briefings/debriefings survey data collection

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