

# IPRO 301: Researching, Designing, and Improving the IPRO Program

## Reflective Thinking and Service Learning

Kristin Bryant

### What is Reflective Thinking?

The ability to make good decisions about ill-structured problems.

### What is Service-Learning?

A form of experiential education where students address community needs through meaningful service in combination with structured opportunities provided to promote academic classroom curriculum and student development.

### Why Does This Matter?

Adults face ill-structured problems everyday! We need to prepare students to evaluate problems and make good decisions.

### Results

- There is no relationship between service-learning projects and reflective thinking skill levels.
- Reflective thinking activities are most effective when they are well-integrated into the curriculum.
- Service-Learning opportunities promote citizenship, civic interest, communication, public awareness, etc.

### Next Steps

Since other researchers have found that service-learning produces positive outcomes, it should be determined whether these outcomes are consistent with the desirable outcomes of the IPRO experience.

If service-learning students are increasing other skills and abilities, the IPRO program should reconsider whether or not these are objectives for the students.



## Teamwork and Peer Reviews

Margaret Kibilko

### What is Teamwork?

The ways in which members of a team work together to achieve a common goal.

### What is Peer Review?

An assessment tool for members of a team to give other members feedback.

### Why are they important to the success of the IPRO Program?

Teamwork is an essential part of having an effective and efficient IPRO. Teams that come together faster have a better chance of success in their project, as well as getting more done in a short amount of time.

Peer review are a helpful teambuilding tool, making team members accountable and responsible for their work, while commending them for a job well done. Peer Reviews also give a team advisor insider information on team functioning.

### Results

Peer review instruments should be behaviorally anchored and scores should be based on observed instances, as opposed to subjective judgements.

### Next Steps

- Continue analysis on future semesters
- Recommendation to IPRO Program on the effectiveness of IPRO Games.

## Groupware

Angela Gandhi

### What is Groupware

Programs that help teams work together while located remotely from each other.

### Objective:

Determine the effectiveness of groupware use on team and individual achievements of learning outcomes.

### Why is it important?

This research will analyze how the use of iGroups can provide a superior IPRO performance.

### What is iGroups?

A system designed to support all communication, scheduling and collaboration activities of IIT & IPRO teams

### Methodology:

Usage data from iGroups, such as the number of e-mails sent and files uploaded by each individual and team is collected from semester to semester and these values are measures of how often a student uses the suite.

Fall 2006 and Spring 2007 semesters, were analyzed by looking at team and individual data and then correlated to particular outcome measures.

### Results:

	Fall '06				Spring '07							
	Percent of Mean Files		Percent of Mean Emails		Sum of Mean		Percent of Mean Files		Percent of Mean Emails		Sum of Mean	
Outcome Measures	Correl	Signifi	Corre	Signifi	Correl	Signifi	Correl	Signifi	Correl	Signifi	Correl	Signifi
Meeting Minutes Score	.35	.04	.31	.06	.35	.04	.25	.13	.41	.01	.35	.03
Midterm Report Score	.29	.09	.35	.04	.33	.05	.02	.90	.06	.72	.04	.81
IPRO Day Presentation Score	.38	.02	.21	.23	.32	.06	.16	.32	.22	.16	.21	.19

### Discussion:

The data is very inconsistent and as of now the only conclusion that can be made is that the use of iGroups doesn't affect team and individual learning outcomes

### Next Steps:

Analyze data iGroups survey and other semesters