

301

It takes a team

IPRO Program Enhancements

IPRO 301

**Researching, Designing, Testing and
Evaluating IPRO Program Enhancements**

IPRO 301

<u>Name</u>	<u>Major</u>	<u>Responsibility</u>
Kristin Bryant	Psychology	Reflective Thinking
Angela Gandhi	Psychology	Groupware
Margaret Kibilko	Psychology	Teamwork
Hannah Kolb	Applied Math	Forecasting
Treyson Ptak	Architecture	Ethics
Heling Shi	Mechanical Eng.	Inter-rater reliability
Carolyn Wood	Physics	Learning Objectives

Team Objective

To conduct a professional, multidisciplinary research program to improve the calibre of IIT student learning.

Reflective Thinking

Reflective thinking is defined by researchers King and Kitchener as the ability to make good decisions about ill-structured problems, or problems that do not have simple, clear right answers.

Pre-reflective level

Quasi-reflective level

Reflective level

Reflective Thinking

Objective:

What is the relationship between problem context and reflective thinking?

Expected Deliverables:

Analysis of reflective thinking in Service-Learning and other IPRO's

Literature search to find previous research conducted

Why is it important?

Reflective thinking is necessary in the professional world and the IPRO program is working to prepare the students for the professional world.

Groupware

Objective:

How does the use of iGroups have an affect on learning outcomes?

Deliverables:

A literature search as well as defining and analyzing relationship between IPRO success and recommendation on use of iGroups to future IPRO's

Why is it important?

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

Teamwork

Objective:

What impact does participation in IPRO Games have on team functioning?

Deliverables:

Recommendation to IPRO Program on best ways to use and improve IPRO Games

Literature search outlining how other programs promote and enhance effective teamwork skills.

Why is it important?

Understanding how participation in the intervention influences teamwork and helps to create a better intervention.

Forecasting

Objective:

Create an IPRO enrolment forecast for the upcoming semesters

Deliverables:

Forecasting model for the next two academic years

Literature search analyzing existing statistical models

Why it is important:

The IPRO program needs to have an accurate forecasting model so that it can prepare an adequate number/types of IPROs for future semesters

Inter-rater Reliability

IRR is extent to which multiple judges view and score the same object

Objective:

Improve the inter-rater reliability of the IPRO Day judging procedure

Deliverables:

Comprehensive recommendation on an intervention program

A mathematical model to improve reliability, as well as increased judging training

Why it is important:

There should be more consistent and fair scoring by the judges on IPRO day.

Ethics

Objective:

Evaluate and determine if the development of a code of ethics, by students, leads to the development of ethical awareness.

Deliverables:

Literature review of relevant data and the implementation of an ethics exam to assist in the measurement of ethical awareness.

Why is this important?:

ENRON, MCI, etc.

Learning Objectives

Objective:

Improve student attainment of the innovation and design learning objectives.

Deliverables:

Complete design and innovation LOs (body of knowledge, test questions, study guide), intervention, literature review.

Why is it Important:

Moves design and innovation to completed and testing phase of development. Helps students better understand design and innovation, and improve their attainment of said LOs.

Research Projects

Reflective Thinking

Groupware

Teamwork

Forecasting

Ethics

Inter-rater reliability

Learning Objectives

Team Member

Kristin Bryant

Angela Gandhi

Margaret Kibilko

Hannah Kolb

Treyson Ptak

Heling Shi

Carolyn Wood