

Ensuring Student Learning of the Principles of Undergraduate Learning

Background

The Principles of Undergraduate Learning (PULs) have an almost-20-year history at IUPUI. In 1990 faculty were challenged to develop a campus-wide approach to general education. Throughout the 1990s, over 400 faculty, staff, and students discussed and debated what this would look like. The outcome of all this work, a document called the Principles of Undergraduate Learning, was approved by the Indianapolis Faculty Council (IFC) in 1998, then revised and reaffirmed in 2007. When, in 2007, all IU campuses were asked to describe their approaches to general education, members of the Undergraduate Curriculum Committee at IUPUI produced a matrix demonstrating how one or more of the PULs was being taught in each of 80 introductory courses identified by the Statewide Transfer and Articulation Committee.

The version of the PULs approved in 2007 gave to the IFC the responsibility for overseeing implementation of the PULs. In 2008, the IFC Executive Committee delegated some of this responsibility to the new Undergraduate Curriculum Advisory Committee (UCAC).

A Matter of Some Urgency

When IUPUI was visited by reaccreditation teams from the North Central Association (NCA) in 1992 and 2002, we indicated that we were working on a new approach to general education (1992) and developing strategies to demonstrate that students were encountering and learning the knowledge and skills the PULs convey (2002). When the next reaccreditation visit occurs in 2012, we need to be able to **show concrete evidence that the PULs are being taught and that students are developing the knowledge and skills the PULs embody.**

Accordingly, Chancellor Bantz and EVC Sukhatme have appointed the “2012 Committee” to develop plans for ensuring student learning of the PULs. The Committee has been co-led by Associate VC Mary Fisher and Senior Advisor to the Chancellor Trudy Banta. Members include representatives of the IFC Executive Committee, the UCAC, University College, the Graduate Office (where a statement of learning principles for graduate and professional students similar to the PULs is being developed), Enrollment Services, the Center for Teaching and Learning, the Program Review and Assessment Committee, and Planning and Institutional Improvement.

A Plan for Ensuring Learning

2012 Committee members have insisted that the plan for implementing the PULs and ensuring student learning be as simple as possible so that faculty will not be burdened by a time-consuming process. The process we propose incorporates both *direct* measures of what students know and can do (e.g., classroom assignments, exams, projects) and *indirect* measures (e.g., questionnaires, focus groups) that provide students' perceptions of their experiences with the PULs. The *combination* of direct and indirect measures will both demonstrate students' levels of learning and provide evidence that can assist faculty in making warranted improvements in instruction, curriculum design, and student services such as advising.

A. *Direct Evidence of Learning*

The PULs are intended to permeate the curriculum. That is, general education at IUPUI does not end with introductory courses, but extends from freshman year to graduation. All students should have multiple opportunities to practice the skills embodied in each PUL and should attain increasing levels of competence as they progress toward graduation. To ensure that this happens, every undergraduate course, beginning at the introductory level, should engage students with one or more of the PULs. **The 1, 2, or 3 PULs emphasized in a given course will be identified by the academic unit responsible for it** and those PULs will be listed with that course in the IUPUI course catalog. A curriculum map (see Attachment A) can assist faculty responsible for a given program in spotting gaps and ultimately in ascertaining that each PUL is represented several times and at various levels in a student's program. Using the methods described below, **faculty in each academic program, or student major, will develop a multi-year plan for assessing student learning** of the PULs in every course offered by the unit.

Each instructor will determine the effectiveness of each student in demonstrating the knowledge, skills, and abilities associated with only the 1, 2, or 3 PULs emphasized in her/his course. The evidence of effectiveness may come from part of a single assignment or from multiple assignments. A rating of **VE**, **E**, **SE**, or **NE** will be entered in the Oncourse gradebook (but not included in calculating the course grade) for each student on each PUL emphasized in that course (see Attachment B). The levels of effectiveness ratings include:

Very Effective
Effective
Somewhat Effective
Not Effective

The data for these ratings of student effectiveness can be aggregated across freshman courses, across sophomore courses, across junior courses,

and across senior courses to provide evidence of students' strengths and of weaknesses that should be addressed. **Data aggregated across courses at the senior level can be reported publicly** to demonstrate our accountability for student learning of generic skills.

B. Indirect Evidence of Learning

We are currently developing a questionnaire (see Attachment C) that will **ask students to rate the effectiveness of a given course** in helping them develop the knowledge, skills, and abilities associated with the PULs emphasized in that course. Levels of effectiveness include:

Very Effective
Effective
Somewhat Effective
Not Effective

Student responses to this questionnaire may be aggregated across students in a course to provide evidence of class strengths and weaknesses related to the PULs. **This evidence can be used to suggest improvements in instruction.** Groups of faculty will be interested in studying the data from sections of the same course, from courses across the major, and from courses across the campus.

Access to information derived from both direct and indirect measures will enable faculty to improve instruction, curricula, and student services. The data also provide evidence of our accountability for student learning that we expect to be convincing to NCA visitors in 2012.

Summary

Program directors and program faculty are asked to do the following:

1. Identify one, two, or three PULs to emphasize in each course offered by program faculty. For each PUL, indicate whether it has a Major emphasis (3), a Moderate emphasis (2), or Some emphasis (1).
2. Create a PUL X Course map showing the PUL emphasis in each course using the 3, 2, or 1 designation given above. (See Attachment A.)
3. Grade assignments and exams related to each of the PULs emphasized in the course and assign a rating to each student for PULs emphasized at the major (3) and moderate (2) level. (See Attachment B.)
4. Ask students to respond to survey items related to the PULs emphasized in the course. (See Attachment C.)

Curriculum Map:

PUL X Course Matrix for an Academic Program

To Program Faculty: For each required course in your program, please indicate the 1, 2, or 3 PULs emphasized in the course using the following rubric:

3 to indicate a *major* emphasis: This PUL is prominent in more than one course assignment, it is a focus of the course, and there is a direct link from this PUL to at least one course objective.

2 a *moderate* emphasis: This PUL is prominent in at least one course assignment, it is explicitly **emphasized** in the course.

1 *some* emphasis: This PUL is inferred by one or more assignments and is **implicitly** emphasized.

PUL	Course			
	101	203	316	460
1. Core Communication and Quantitative Skills				
a. Language skills (reading, writing, listening, speaking)	3			3
b. Quantitative skills		3		1
c. Information resources skills			2	
2. Critical Thinking		2		
3. Integration and Application of Knowledge			1	
4. Intellectual Depth, Breadth, and Adaptiveness		1		
5. Understanding Society and Culture	2			
6. Values and Ethics			3	

Course Rating Form

To Program Faculty: Using the Oncourse gradebook, assign an overall rating to each student for the one or two PULs emphasized most in your course using the following scale:

VE = Very Effective, E = Effective, SE = Somewhat Effective, or NE = Not Effective

In assigning this rating, you may use evidence from a single assignment or from multiple sources over the entire course (e.g., test items, oral presentations, projects).

Student	Writing	Values and Ethics
1	NE	SE
2	SE	E
3	SE	VE
4	E	E
5	E	SE

Attachment C

*To Program Faculty: Please administer **just those items** in the list below that pertain to the one or two PULs you **emphasize most** in this course.*

To Students: On the basis of your experience in this course, please indicate the effectiveness of the course in helping you develop each of the skills, abilities, and areas of knowledge listed below.

PUL/Survey Question	Not Effective	Somewhat Effective	Effective	Very Effective
<u>Language Skills</u>				
Reading and understanding books articles, and instruction manuals	NE	SE	E	VE
Writing clearly and effectively	NE	SE	E	VE
Speaking clearly and effectively	NE	SE	E	VE
Preparing a presentation that I will deliver to a group	NE	SE	E	VE
Writing a final report on a project or other work assignment	NE	SE	E	VE
Working as part of a team to solve problems	NE	SE	E	VE
<u>Quantitative Skills</u>				
Solving mathematical problems	NE	SE	E	VE
Using mathematics in everyday life	NE	SE	E	VE
Understanding a statistical report	NE	SE	E	VE
<u>Information Resource Skills</u>				
Finding useful information on the internet for work-related projects	NE	SE	E	VE
Using computer software for work (word processing, spreadsheet, graphics, etc.)	NE	SE	E	VE
Evaluating the accuracy of information on the internet	NE	SE	E	VE
<u>Critical Thinking</u>				
Thinking critically and analytically	NE	SE	E	VE
Evaluating other people's ideas and proposed solutions	NE	SE	E	VE
Systematically review and improving own ideas about how to approach an issue/problem	NE	SE	E	VE
Creatively thinking about new ideas or ways to improve existing things	NE	SE	E	VE

<u>PUL/Survey Question</u>	Not Effective	Somewhat Effective	Effective	Very Effective
Discussing complex problems with co-workers to develop a better solution	NE	SE	E	VE
<u>Integration and Application of Knowledge</u>				
Applying what I learned in college to issues and problems I face every day	NE	SE	E	VE
Gathering information from a variety of sources when deciding what action to take	NE	SE	E	VE
Finding new ways to use my skills and knowledge as I encounter new situations/problems	NE	SE	E	VE
Putting ideas together in new ways	NE	SE	E	VE
<u>Intellectual Depth, Breadth, and Adaptiveness</u>				
Having a general understanding of subjects other than the one in which I majored	NE	SE	E	VE
Learning independently	NE	SE	E	VE
Learning new approaches to work or to advanced studies	NE	SE	E	VE
Trying different approaches to solving a problem	NE	SE	E	VE
Having an in-depth understanding of my major field of study	NE	SE	E	VE
<u>Understanding Society and Culture</u>				
Dealing with conflict among co-workers and friends	NE	SE	E	VE
Working effectively with people of different races, ethnicities, and religions	NE	SE	E	VE
Communicating effectively with people who see things differently than I do	NE	SE	E	VE
<u>Values and Ethics</u>				
Exercising my responsibilities as a citizen (voting, staying current with community and political issues)	NE	SE	E	VE
Making informed judgments when faced with ethical dilemmas	NE	SE	E	VE
Recognizing the consequences of my actions when facing a conflict	NE	SE	E	VE