Plan — Research — Assess!

"Making information accessible"

Introduction

Welcome to the first issue of Plan — Research — Assess! This newsletter is published by the Planning, Research, and Assessment (PRA) Office at Penn State Berks to better communicate research and planning initiatives within the Berks community. Each newsletter will feature articles about projects involving the PRA Office, as well as the use of planning, research, and assessment throughout the college. Special thanks to the PRA student workers for making this first issue possible.

Who is the PRA Office?

The PRA Office is directed by Dr. Mary Lou D'Allegro. The Office also employs Stefanie Kerns, Statistical/Data Analyst. PRA has a diverse group of student workers assigned to the Office. In fall 2007, three student workers will help PRA: Saskia Urbaez, senior global studies, Stefanie Galeano, senior professional writing major and Kameron Krumsky, sophomore interested in engineering.

History of PRA Office

- Conceived by Dr. Susan Phillips Speece, chancellor
- Named originally "Institutional Research and Assessment"
- Fulfilled need of dissemination of campus data to inform decision-making
- Provided information to external accreditation agencies
- Conducted institutional survey projects
- Became integral to retention and student success
- Facilitated Institutional Strategic Planning Process in 2004-05
- Accounted for assessment in academic areas
- Renamed "Planning Research and Assessment Office" in summer 2006
- Helped facilitate comprehensive general education assessment in 2007-08

Mission Statement

The PRA Office facilitates the research, design, implementation, analysis, interpretation, and report dissemination of data that informs college-wide policy decisions, strategic planning initiatives, program development, college marketing strategies, assessment of student learning outcomes, and program evaluation and assessment (see Figure 1) .

Figure 1: The Main Functions and Services of the PRA Office

PRA Office Values

- Accuracy
- Analytical research
- Building knowledge
- Continuous improvement
- Efficient use of technology & resources
- Responsiveness
- Results driven

Figure 2: Room 9, Janssen Conference Center

Inside this Issue

What does PRA Do?

- Facilitate the college's strategic planning process
- Define college issues cooperatively
- Coordinate market research efforts and facilitate dissemination of results
- Maintain information gathering for program reviews, outcome assessment and accreditation mandates
- Supply decision-support research
- Assist with continuous improvement of college-wide operations
- Collaborate with other college and university personnel to exchange information
- Enhance impact statements and evaluation protocols for external grant applications

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"The great aim of education is not knowledge but action." - Herbert Spencer

Defining Assessment

Assessment is the continued process of evaluating the extent goals that are achieved, articulating the gap between performance and those goals, and identifying avenues to improve. Assessment also provides evidence of competence, in essence, what the institution is doing right.

"Assessment is really measuring those things which can be measured," says Dr. Susan Phillips Speece, chancellor. "It can be effective if you ask the right questions, and if you don't force the results to give you the answers you want. You have to be willing to accept whatever results assessment brings to you, if you have done assessment properly."

At the heart of assessment is sound measurement development and administration. Measurements can be quantitative or qualitative. Quantitative information involves numerical information to draw conclusions while the qualitative method uses descriptions, conversations, and explanation of affect. Although assessment and research are often used interchangeably, there is a notable difference. Assessment is conducted for a particular program or area; research is more generalizable and in certain cases, the results can be used in a larger context than the program that was used in the research.

Assessment poses many types of limitations such as resources, time, subjects, and implementation. Studies need funding and require participation from the campus community,

"Assessment is complicated … there are limitations and there are problems," notes Dr. Paul Esqueda, associate dean. Some of those problems include invalid instruments, poor participation, low response rates to surveys, and the collection and coding of data that is inaccurate or not consistent. However, an assessment that is conducted correctly can still encounter problems when the results are disseminated. It is imperative that the results be reported correctly, appropriate inferences are made, and guidance is given to the meaning and recommendations from the assessment results.

However, the benefits of assessment studies are worth the time and money. In general, the more resources and time allocated to the study, the more robust the assessment results will be. PRA will be working with the faculty to ensure that assessment is done right!

Data Warehouse

Penn State's data warehouse was created in 1994 when a group of technical staff members met to discuss the need to obtain ad hoc data. They help create a tool to make institutional data readily available to a large contingent of end-users.

The data warehouse provides approved users with easy access to institutional data for analytical and reporting purposes. It is the source for a system of "data marts," or subsets of data oriented to various functional business areas.

There are more than 50 tables available to users, ranging from information on students, course enrollments and classroom facilities.

In order to query historical as well as current records within the data warehouse, users must access the information through third-party software such as Access, Excel, SAS, or Visual FoxPro. The PRA Office has extensive experience in extracting information from the data 2arehouse processing query requests from the college community. The requests are reviewed for understanding, clarified and completed, in most cases, within three days.

The time it takes to process a request can vary depending on the urgency, size and complexity of the request. The office staff have undergone data warehouse training by Information Technology Services (ITS) at University Park and have the resources to assist the campus community. These resources include an understanding of the data warehouse elements, mainly tables, fields and field values. The office also has extensive experience in data management and reporting tools such as Access and SPSS.

Shown in Figure 4, the number of data warehouse requests processed by the PRA office continues to increase.

To learn more about the data warehouse contact Stefanie Kerns Statistical/Data Analyst at slk37@psu.edu or 610-396-6386. Visit the data warehouse website at: http://ais.its.psu.edu.

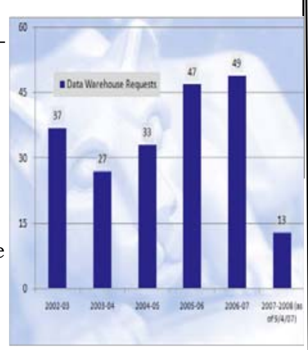

Figure 2: Data Warehouse requests for 2002-03—Present by Academic Year

Strategic Planning

Preparations for the new strategic plan-2008-2013, are well underway. The strategic plan chairpersons, Dr. Blaine Steensland, senior director, student affairs and faculty and internal consultant, Jim Laurie, have provided tremendous momentum for developing the new strategic plan. For example, five key goal areas have already been identified. Those key goal areas are:

1) Quality of Student Learning, 2) Recruitment & Retention,
3) Diversity and Sense of Community,
4) Community Outreach
5) Research and Scholarship.

A task force has been assigned to address each goal area.

The PRA Office will involved in the development of the strategic plan but most of the effort will be wielded by the Core Planning Group, Strategic Planning Council (SPC) and by the five task forces.

Institutional and Specialized Accreditation Process

Accreditation helps institutions assess the efficiency of its operations, student learning, and use of resources. Accreditation bodies assess the extent a college or department is meeting their stated missions and the standards of the accreditation body. Evaluation takes place every five years to explicate how the institution can not only improve, but sustain their quality and integrity as well.

Pennsylvania State University is accredited the Middle States Association-Commission of Higher Education (MSA-CHE), one of seven regional accreditation agencies in the United States. Under MSA-CHE, institutions undergo a self-study and visit by accreditation evaluators every 10 years. They also re-affirm the accreditation five years after the self-study. The institutions and its programs are evaluated on 14 standards. The standards include a lucid leadership structure, inclusive strategic planning process, and systematic assessment of institutional, program, and course offerings.

In order to meet accreditation standards, institutions usually identify key institutional goals, student learning outcomes and relevant assessments of those outcomes. To conduct a long-term assessment of student learning, institutions must provide the assessment of student learning, supply resources to support assessment efforts, and provide funds to make the changes necessary.

To show the achievement of institutional goals, many sources of data must be gathered through such methods as student questionnaires, telephone interviews, or focus groups about the student learning experience. The results will demonstrate if the institution is achieving its institutional goals and students have, indeed, the requisite learning skills, knowledge and affect.

Specialized program accreditations also abound. For example, the Penn State Berks engineering technology programs have been involved in the accreditation process for Accreditation Board for Engineering and Technology (ABET), an organization that endorse engineering and technology degree programs.

"…In January 2006 a request was made to ABET to have a re-accreditation visit," says Terry Speicher, assistant professor of engineering. "Then in June, we submitted ABET self-study documents for each of the programs that covered material for the eight criteria that they evaluate engineering programs."

"The accreditation process takes place at least every six years," notes Dr. Janelle Larson, associate professor of agricultural economics and interim division head of engineering business and computing. "It's incredibly systematic what [the engineering faculty] do."

Preparing for a specialized accreditation visit usually starts with the appointment of an accreditation coordinator to orchestrate the self-study of the program. Each division may also appoint a person with seniority in the division to coordinate the accreditation. The team focuses on the execution of the academic assessment plan and the coordinator will collect assessment reports and determine if more information is needed.

Once the self study is completed, a site team of faculty or administrators from other institutions will visit the campus. The team will ask an assortment of questions to various staff and faculty members. If any of the questions cannot be answered completely and backed up with data, the accreditation team will recommend it to be included in a future assessment plan.

The ABET accreditation team visited Penn State Berks in September 2006 for three days. "What happens next is they have their findings from their visit, and they prepare a preliminary report that comes to us around December," says Speicher. "We then have one to two months to respond to that report; if there are findings that we don't agree with or for which we can provide additional data, we will do that." With the information complete, Penn State Berks engineering technology programs were successfully re-accredited

The Berks campus engineering technology department has been using a data collection tool called MEET (Measurement and Evaluation in Engineering and Technology) to consolidate the ABET findings and program outcomes into an online database accessible to the division. The MEET data was also shown to the ABET evaluators during their September visit. MEET is a helpful assessment device for faculty. "They're constantly using MEET to evaluate the courses and see what they need to change within the course, and also within the program," notes Larson.

Initiatives in Progress

For many semesters, CHEM-100 had the dubious distinction of being the course with the lowest grades and worst retention rate of all campus courses. To change the course's standing, the college decided to redesign the course and incorporate specific technology into the curriculum, resulting in the CHEM 100 hybrid learning project.

The project "is a way to capitalize on relatively new technology and to enable us to do some things with the [CHEM 100] course that we couldn't do previously … in terms of looking at and assessing students' needs, areas that students have struggled in the past, looking at how we can redesign the course so that new instructional activities can be used and how technology can be integrated into that process," said John Shank, assistant librarian and director of the College's Center for Learning Technologies. The technology used in CHEM 100 includes clickers, a student response system;, ANGEL, and online quizzes, and visual learning materials, such as videos.

The coordination between two CHEM 100 teachers, Dr. Ike Shibley, associate professor of chemistry, and Dr. Katie Amaral, assistant professor of chemistry, ensured all students in every CHEM 100 section would be following the same curriculum and timeline.

To assess how the hybrid learning initiative was working, pre-test and post-test surveys about chemistry attitudes were administered, as well as general chemistry exams. Randomly selected students were asked to participate in focus groups, where questions were asked about their learning experience in CHEM 100.

In regards to assessment findings, Shibley says, "We hypothesize the retention will go up, we hypothesize that the average exam and course grades will go up, we hypothesize that students

Initiatives in Progress

-**Initiatives** from p. 3

through several different measures, will have a better attitude about the course."

The hybrid learning model will be presented to other faculty and administrators in the next several months to promote the idea of hybrid learning and the redesign of courses to include more technology and multiple learning formats. CHEM 100 will continue to be taught as a hybrid course for the next two semesters. Although the future of CHEM 100 taught as a hybrid course is based on assessment findings, the course will likely continue indefinitely with some modifications.

The CHEM 100 hybrid learning project's apparent success can be a model for other faculty and their courses. Adds Shibley, "It's one of the most positive experiences I've been involved in 10 years at Penn State."

Retention

Traditionally, retention identifies the proportion of new first-year students who continue attendance and graduate from the same institution. This is problem for Penn State Berks which is seen by some as a two-year college, merely a stepping stone on the way to University Park.

Retention "shows some relative measure of success, hopefully, in terms of providing an appropriate educational environment that meets students' needs," says Dr. Blaine Steensland, senior director of student affairs.

Often, retention is reported separately for student sub-groups such as gender and ethnicity. Student involvement in learning communities, sports, or SGA are other subgroups in which retention and graduation are also frequently examined.

To assess the student experience and retention issues, the Retention Council was formed in fall 2003. It is comprised of more than 20 faculty and staff from all college departments.

Retention study requires much research and assessment. "Assessment - good assessment - is really at the core of what we're talking about in terms of foundation," notes Steensland. Assessment is used to test the retention hypotheses determined by the council.

To abet this assessment and improvement, The Penn State Berks Retention Plan was developed. A three-year plan, it focuses providing a comprehensive first-year experience, creating a learning-centered environment, and institutionalizing an ongoing commitment to retention.

The council is also instrumental in Penn State Berks' participation in the National Survey of Student Engagement (NSSE), a questionnaire of student behavior.

"Everybody has a responsibility for making sure that what we offer and how we offer it is done only the best possible way," summarizes Steensland.

Economic Impact Study

The Higher Education Council of Berks County (HECBC) has sponsored a report on the economic impact colleges have on Berks county. The institutions participating in the study are Albright College, Alvernia College, Kutztown University, Penn State Berks, and Reading Area Community College.

"An economic impact study is really looking to try to quantify the financial aspects, benefits, and contributions that the institutions have on Berks County," says Dr. Lolita Paff, associate professor of business economics.

Each college will examine the economic impact students, faculty, staff and visitors have on Berks County.

The study uses a socio-economic model of economic impact. This model focuses on the social, cultural, and institutional spending impact on the Berks County economy. "All of these financial aspects yield some benefit to those who aren't affiliated with any of the institutions here in Berks County," says Paff.

By assessing where institution spending is occurring, colleges can appreciate the effect their existence on the community. The amount of student participation in the community through spending, employment, and volunteering reflects on each institution's mission of developing well-rounded, active members of society.

The final report will be presented to the HECBC and shared with the Berks Economic Partnership and the Berks County Chamber of Commerce.

"The economic impact study could help be a springboard for better town relationships," Paff notes. The study will also reinforce collaboration among the five regional colleges.

Resources

The information in this newsletter was compiled with the help of the following valuable resources:

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