

Management of Strategic Analysis in Higher Education

Taiwan Association for Institutional Research
January 15, 2017

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What Is Institutional Research?

A basic, simple description:

‘Institutional Research’ is “research about the institution.”

Another brief description:

IR is “management research about institutions.”

What Is Institutional Research?

Institutional researchers **develop information and analyses**, to help decision makers to . . .

- see the institution more clearly
- understand the institution more strongly
- make better decisions

What Is Institutional Research?

Defining and describing IR:

- Joseph Saupe
- Patrick Terenzini
- J. Fredericks Volkwein

What Is Institutional Research?

The Primer of Institutional Research

- Edited by William Knight
- Includes description of some basic components of IR

What Is Institutional Research?

The Handbook of Institutional Research

- Edited by Richard Howard,
Gerald McLaughlin, and
William Knight

IR and more . . .

- Institutional research
- Assessment / evaluation
- Planning
- Institutional effectiveness
- Decision support
- Accreditation
- Policy analysis
- Quality improvement



At the core of IR:

Information
and
Analyses



Institutional Needs for Information and Analyses

Some example categories . . .

Institutional Needs for Information and Analyses

- Students
- Faculty and Staff
- Infrastructure
 - Physical Resources
 - Digital Resources
- Finance
- Mission and Purpose

Students

- Expectations
- Background, aptitude, experience, competence
- Aspirations
- Needs (academic, social, spiritual, . . .)

Faculty and Staff

- Credentials, expertise, experience, competence
- Compensation
- Professional needs

Infrastructure, Physical and Digital

- Capacity
- Operation and maintenance
- Renewal and replacement
- Space management and utilization

Finance

- Revenue sources and amounts
- Internal allocation of funds
- Expenditures
- Efficient use of funds
- Effective use of funds

Mission / Purpose

- Why does the institution exist?
- What purpose does it serve?
- What is the mission of the institution?
- Is the institution effective in progressing toward the achievement of the mission?
- Is the mission evolving?
- Is the mission pertinent?

Institutional Research

Using institutional research is one of the ways in which institutional leaders gain greater understanding, insight, and clarity of vision, thereby helping them to make better decisions and to lead in operating the institution more effectively.

Institutional Needs for Information and Analyses

Given the example categories of need that were mentioned, let's examine some of the example subjects of need more closely . . .

Enrollment

- Enrollment analysis, including enrollment modeling and enrollment projection
- Admission / student recruitment analysis
- By instructional site
- By instructional mode and format (digital/online versus traditional/on-ground)

Instructional Effectiveness

- Including instructional mode, techniques, etc.

Students

- Demographic characteristics
- Student success
 - Progression toward degree completion*
 - Retention*
 - Graduation rates*

* Not consequential in Taiwan but important measure in many other countries

Finance

- Cost analyses
 - Instructional
 - Administrative
 - Institutional
 - Cost containment

Finance

- Appropriate allocation of resources to where needed for operation and innovation,
for standard operation and
for incentive/reward for performance improvement

Finance

- Financial effectiveness of investments (return on investments) in new ventures (new programs, centers, techniques, software, etc.)

Finance

- Programmatic effectiveness of investments (return on investments) in new ventures (new programs, centers, techniques, software, etc.)

Finance

- Economic impact analysis – upon local or regional economy

Human Resources

- Employee / human resource information
 - Instructional faculty – including tenure and promotion
- Human resource planning, including faculty, administrator, and staff projections

Human Resources

- Faculty salary equity – to be equitable to all faculty and competitive (in recruitment and retention of faculty) in the market place
- Administrative salary equity – to be equitable to all administrators and competitive (in recruitment and retention of administrators) in the market place

Interinstitutional Comparisons

- Benchmarking versus selected comparison institutions or groups of institutions

University Advancement / Development / Fundraising

- Finding prospective donor targets
(individuals and organizations)

Decision Support

- Support for decision making and strategic planning, in support of:
 - President, Vice Presidents
 - Cabinet Members
 - Deans, Department Chairpersons, etc.

Analyses for Improving Student Success

- Improving advisement through analysis of successful paths, successful course sequences, successful combinations of an array of variables -- demographic and entrance characteristics, as well as contextual student instructional engagement and collegiate experience engagement, with perhaps opportunities for in-depth analysis

Assessment of Learning

- Learning
- Pedagogical/instructional goals
- Departmental goals
- Accreditation compliance

Student Financial Aid

- Scholarship management analysis
- Student financial aid utilization and effectiveness analysis, overall and by type of aid (grant, loan, work study)

Research Consultation

- With other units, regarding:
 - Research method
 - Research design
 - Sampling
 - Instrumentation
 - Analysis
 - Development and use of results
 - Etc.

Institutional Needs for Information and Analyses


. . . are EXTENSIVE !

Leimer and Terkla (2009)

- Studied how to organize and develop staffing for conducting institutional research.

Leimer and Terkla (2009)

“Appropriate staffing is critical to effective institutional research; yet most institutional research offices are chronically understaffed.”



Institutions have substantial needs for information and analyses.

In many institutions, IR is chronically understaffed.



How will institutions survive in this situation?

How will institutions address these extensive institutional needs for information and analyses?



Who could help to address these extensive institutional needs for information and analyses?



Typology for Addressing Institutional Analytical Needs

Typology for Addressing Institutional Analytical Needs

- Financial
 - Financial analysts, financial directors, budget directors

Typology for Addressing Institutional Analytical Needs

- Students: Student Learning
 - Specialists in teaching, learning, and pedagogy
 - Specialists and experts in testing and measurement

Typology for Addressing Institutional Analytical Needs

- Students: Student Engagement
 - Specialists in student progression and retention

Typology for Addressing Institutional Analytical Needs

- Students: Student Success
 - Specialists in student progression and retention
 - Specialists and experts in assessment and evaluation

Typology for Addressing Institutional Analytical Needs

- Students: Student Success
 - Specialists in student progression and retention
 - Specialists and experts in assessment and evaluation
 - Psychologists
 - Sociologists

Typology for Addressing Institutional Analytical Needs

- Admissions
 - Recruitment and admission specialists
- Enrollment Management
 - Enrollment management specialists
- Marketing
 - Specialists in institutional marketing, student marketing

Typology for Addressing Institutional Analytical Needs

- Human Resources: Faculty and Staff
 - HR director, HR specialists, Provost's Office

Typology for Addressing Institutional Analytical Needs

- Infrastructure: Physical
 - Specialists in facilities operation and facilities management

Typology for Addressing Institutional Analytical Needs

- Infrastructure: Physical
 - Specialists in facilities operation and facilities management
- Infrastructure: Digital
 - Specialists in digital resources, operations, and management

Typology for Addressing Institutional Analytical Needs

- Mission / Purpose
 - President, President's Cabinet
 - Provost, Provost's Office
 - Strategic planners
 - Accreditation specialists

Typology for Addressing Institutional Analytical Needs

- Specific Information and Analytical Needs in Academic Units and Non-Academic Units
 - Analysts and experts within the units

Typology for Addressing Institutional Analytical Needs

- Other Experts / Specialists
 - Educational researchers
 - Statisticians
 - Information Technology:
 - Systems analysts
 - Data base analysts, data base managers
 - Data scientists

Culminating Overview

- Extensive need for information and analyses.
- The IR office/team cannot address ALL of the institutional needs.
- Collaboration and partnering with other providers and stakeholders is not optional; it is imperative.

Conclusions

- Given the conditions that we have explored today, institutional researchers must look for ways to work with other providers and stakeholders in the realm of developing information and analyses for our institutions.

Conclusions

- Institutional researchers must take action, and even provide leadership and example, by seeking to:
 - Cooperate
 - Collaborate
 - Develop more productive, stronger connections and linkages with other providers and experts
 - Be supportive (mutually supportive) and . . .

Conclusions

- . . . Get more experience with cooperation and collaboration
 - To gain acceptance of this as a more frequent, beneficial, and standard part of operation of the institution -- to the benefit of the units and sub-parts of the institution, as well as the entire institution.

Conclusions

- We need to do this
 - For greater informational and analytical benefit of institutions
 - For stronger, smoother, more beneficial, more informative, more realistic, and presumably less chaotic operation by the institutional research unit

Conclusions

- Yes, the institutional research function is larger than what can be addressed realistically by the typical institutional research operation.
- New steps must be taken to meet the institutional needs for information and analyses.

Future of IR in Higher Education in Taiwan

- You have an opportunity to build and shape the future of IR in Taiwan.
- You must ask not only **what** IR will be, but also **why** you have built it that way!



Questions, comments,
collaborations . . .

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