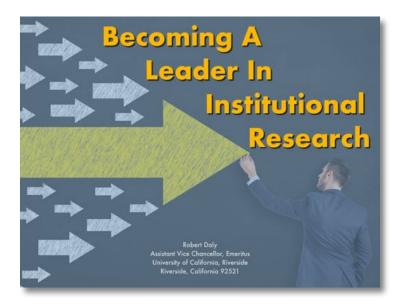
Becoming a Leader in Institutional Research

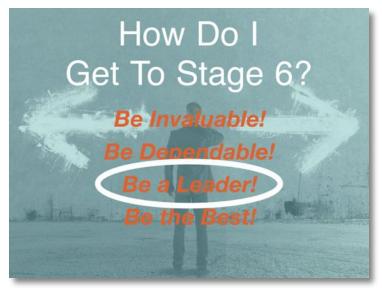
Slide 1 (Becoming a Leader in IR)



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by
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Slide 2 (Be a Leader)



A few years ago I did a presentation at CAIR about the "Six Stages of Growth for the IR Professional". There, on the last slide, I said one of the things that you needed to do to reach Stage 6 was to "Be a Leader". In this presentation, I am going to talk about being a leader, and specifically being a leader in institutional research.

If you search the Internet, you can find many articles about leadership, especially by faculty in the business and psychology schools. I'm not here to talk about leadership in general — I

want to talk about leadership in institutional research.

When I speak about institutional research, or IR, I am talking about the administrative function as opposed to the study of institutional research in the schools of education or in other academic programs. The distinction is very important since the roles and focus of a leader in the practice of administrative institutional research are different from the

roles and focus of an academic leader in the study of institutional research. I expect that just about everyone here has an administrative job in IR.

However, the work of academic leaders cannot be ignored since it informs and influences the roles and focus of administrative institutional research. One of the leaders in IR is Patrick Terenzini. Professor Terenzini also has influenced the practice of institutional research, including defining the three tiers of organizational intelligence which provides a framework for the complexity of work done in IR and a guideline for the development of leadership skills needed in IR.

Slide 3 (Terenzini's Tiers)



Those three tiers are

- 1. Analytical/technical intelligence
- 2. Issue intelligence and
- 3. Contextual intelligence

Tier 2 is generally considered to be a higher level that tier 1, and tier 3 is a higher level than tier 2. IR professionals tend to advance in the tiers of intelligence as they develop the skills and acquire the experience needed to succeed at each of these levels.

Leadership in IR is needed at each of the three tiers. Leadership is not a characteristic that belongs exclusively to tier 3. In fact, as I mentioned in my Six Stages presentation, leaders are needed in each of the six stages of growth for the IR professional, and also for Terenzini's tiers. There are key leadership skills that are needed for each stage or in each of Professor Terenzini's three tiers. Before I talk about those leadership skills, let me tell you briefly about my journey in IR and how that relates to leadership and Terenzini's three tiers.

My journey began over 40 years ago. During my career, often without realizing it, I took on leadership roles that made a difference or created change at each of these three levels. Let me give you three examples.

Slide 4 (Tier One Example)

The first example occurred in 1974 when I was only 27 years old. I was then working at Santa Ana College, a two-year community college not too far from Disneyland! At Santa

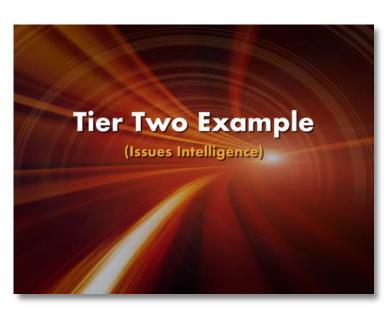


Ana College, I used my analytical and technical skills (Terenzini's Tier One) to argue that the minimum class size should be 15 students. My calculation was simply that only 15 students are needed for the college to receive enough income to pay all the bills directly related to that class. Previously, the minimum class size was set at 25 students.

The point of this example is that I not only used my "analytical/technical intelligence", but I looked at the income and costs from a different

perspective. The 25 student rule was calculated by using averages of all classes offered. I calculated the 15 student rule by calculating income and costs associated with offering one additional class. Fortunately, I was working for a Dean of Instruction who agreed with my analysis and the new 15-minimum student rule was implemented. What I learned is that by using analytical and technical skills, I could affect change. Assembling useful analysis for decision-makers is what made the difference.

Slide 5 (Tier Two Example)



In 1980, I started working at the University of California, Irvine, or UCI. UCI is one of the 10 campuses of the University of California and held its first classes in 1965. Today, it's enrollment is approaching 30,000 students.

At UCI, I was the Director of Analytical Studies and Information Management. My primary role was to support decision-making and planning by providing needed and relevant background data and analysis. In essence, I was helping plan the

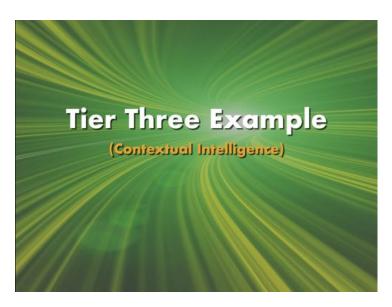
campus, helping establish goals related to those plans, and helping achieve those goals. One of the campus' planning goals was to enroll more students with higher admissions test scores. The senior officers wanted to see a 100 point increase in the average Scholastic Aptitude Test (SAT) scores within five years. The Director of Admissions

struggled to achieve this goal because she was trying to achieve multiple, interrelated, and sometimes conflicting goals. It seemed necessary for her to achieve all the admissions and enrollment goals, almost simultaneously.

The admission director asked for some analytical/technical assistance, but I went a step further and added some issues intelligence (Tier Two). We prioritized her admissions goals so she could focus her limited resources on achieving one or two admissions goals at a time. We chose increasing the SAT scores as the number one priority. The plan was approved by the campus officials. It worked exceptionally well, and UCI realized a 100 point increase in its average SAT scores in just three years, two years ahead of the original target.

By using analytical and technical intelligence and adding issues intelligence, a plan was developed that helped the admission director and, especially, UCI achieve an important goal. By understanding the campus's complex and sometimes conflicting goals, I could help the admissions director organize her priorities, and, consequently, help UCI achieve one of its goals. The issues intelligence was understanding the interrelatedness of campus goals and how that can affect the success of an operational office.

Slide 6 (Tier Three Example)



In 2004, my career and perspective about IR further evolved when I starting working at UC Riverside.

One of my favorite parts of UCR is its on-campus complete collection of all citrus varieties growing in the world, and there are over a thousand varieties. Next time you are at UCR, be sure to take a tasting tour of this arboreal citrus forest. And bring some Tums!

At UCR, I was very involved with program and budget planning. That gave me a much greater perspective

about campus operations, and I was able to put my IR work into a broader campus and university-wide framework. That broader framework helped me create a change in how each UC campus was funded. My work was evolving to influence and assist other UC campuses, and, indeed, the entire University of California system.

For each UC campus, the State of California's funding is basically based on the number of credit units that students enroll in, up to a full-time maximum of 15 units per quarter. The closer students are to that 15 unit maximum each quarter, the greater the campus' funding. That all makes sense, but the funding was based on an average of two and three year old data. While UCR students had been enrolling in about 13 units each quarter, in 2004 they started enrolling in more and more units each quarter due to a series of student success programs. Since funding levels were based on old data, the campus was not being funded for its current and the actual number of units, but for a smaller number based on old data. By working with my colleagues at each of the UC campuses, and by getting the support from the budget Vice Chancellors, my plan was to base funding on current year units. This was approved and implemented for each of the UC campuses.

By understanding a UC policy and the related process, my recommendations created an important change in how State of California funds are allocated to each of the campuses. It was the contextual intelligence and understanding about how one process affects many other processes. That contextual understanding was the basis for this change.

Slide 7 (Skills of an IR Leader)

Professor Terenzini gave us a framework that we can use to understand the levels of complexity of our work in institutional research. Those tiers also provide a framework for understanding leadership in IR. Advancing through each tier, the IR professional working at tiers two or three can teach leadership skills to IR staff in the other tiers. You may be wondering, however, what leadership skills are needed at each tier. The literature (and the Internet) can provide a long list of leadership characteristics applicable to any profession. Are there specific skills and traits of very successful IR leaders?



To find out, I queried 20 of my IR colleagues. These professionals range from mid-level managers to seasoned veterans who have influenced decision-making at their colleges. These 20 were also selected since each has displayed leadership in IR during his or her career. In my survey, I simply asked each professional, "What are the most important characteristics or skills needed to become a leader in IR?" I also asked each, "Do members of your executive management

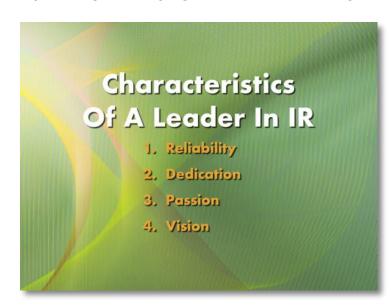
(Chancellor/President/Provost/Vice President, etc.) agree with you?" This last question was important because I expected each IR professional would stop and reflect on the answer provided to the first question. I wanted each IR professional to consider what skills are important to the executive officers.

To summarize, the findings of the survey identified three skills:

- 1. Technical Skills
- 2. Analytical Skills
- 3. Communication Skills

Slide 8 (Characteristics of a Leader in IR)

Possession of those skills does not necessarily make an IR professional a leader in IR. There are also certain personality characteristics that are needed. In my survey of 20 of my colleagues, they agreed that the following characteristics are found in IR leaders:



- 1. Reliability
- 2. Dedication
- 3. Passion
- 4. Vision

The reliability characteristic is one I talked about in my presentation the "Six Stages of Growth". Dedication is a personality trait that is needed in any profession and in much of life. My colleagues are also correct in pointing out that passion is important and greatly influences one's degree of reliability and dedication. Finally, there is vision. Vision is simply thinking about how to do things better, or how

do do things diffently. Vision can be for small things such as reorganizing a report so it's easier to understand, or for big things such as helping design programs for student success.

Slide 9 (What is the Primary Purpose of IR)



However, there is more. Being a leader in IR means that you understand the primary purpose of IR. It is often difficult to explain the purpose of IR. I can ask you right now what you do for a living and I will get a long list of your various duties. That list does not define "the primary purpose of IR". Many authors have tried to define IR which often results in a list of IR duties. Maybe a little organization of duties will help.

Slide 10 (Volkwein's IR triangle)



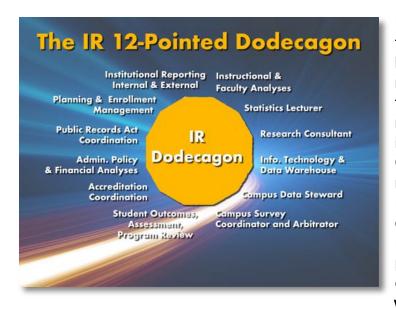
A useful organization was created by Professor Fred Volkwein. Fred created and published an organization of IR duties about a decade ago and called it the IR Golden Triangle. Here, you can see IR duties organized into three areas: reporting, planning, and assessment.

Slide 11 (Volkwein's six-pointed IR star)



Fred recently updated his organization of IR activities and realized that the extent of IR duties are better represented by his IR sixpointed star. These six categories include the three from his triangle. He, however, separated one into two and added two. Fred has not published his six-pointed star, yet but this slide represents the star he has been showing in his speeches at regional and national meetings.

Slide 12 (IR 12-pointed dodecagon)



In just a decade, Fred has shown that the duties of IR have doubled. This has caused some confusion about the role or purpose of IR. It does seem that IR offices keep adding more and more duties. At one time, I was even in charge of responding to the California Public Records Act requests because I had the data. So, I wonder how long will it be before the duties of IR would double again from Fred's six-pointed star to a 12-pointed dodecagon! Here is what that could look like. Is there any wonder why you have a hard time explaining

what you do for a living? Is it any wonder why so many faculty and staff at your campus wonder what is the purpose of IR.

Slide 14 (What is the primary purpose of IR)



So, I'm back to the question, "What is the primary purpose of IR?" Before I answer that, let me present some different perspectives. Let's look at four other professions and see what their primary purpose is. What does each of these professionals do for a living.

Slide 15 (The purpose of accountants)



If I ask you what is the purpose of accountants, you will tell me it is to do accounting. But more specially, it is to be experts in accounting. If your provost has an accounting question, he or she calls the head of accounting, the expert in accounting. What accounts do for a living is very well defined. Few people are confused about the purpose of accountants.

Slide 16 (The purpose of planners)



If I ask you what is the purpose of planners, you will tell me it is to do planning. But, more specially, to be experts in planning, or at least in their specific area of planning. When your campus president needs advice about planning new buildings, he or she will consult the campus capital planners. For developing a new academic program, she will talk to the head of academic planning. These people have a very specific role and each is considered an expert in planning.

Slide 17 (The purpose of counselors)



If I ask you what is the purpose of counselors, you will by now tell me it is to be experts in counseling.

Counselors are trained to be experts on counseling. If I want some counseling, I go see a counselor. I don't go see an accountant.

Slide 18 (The purpose of budgeters)



Of course, the purpose of people who do budgeting, is to be experts in financial matters and preparing budgets. If provosts need advice about the campus budget, they will go talk to the campus financial or budget expert. They won't talk to the head of human resources.

Slide 19 (The purpose of institutional researchers)



You get the idea. Now, what is the purpose of institutional researchers? To be experts in? Are you having a hard time precisely answering that question? Do you have a hard time explaining what you do for a living to your friends and relatives?

Slide 20 (My mother)



Think back to Volkwein's IR triangle and his IR Star. We do a lot of things, and probably even more than is shown in the triangle or star.

We are good at all those things, but are we considered the expert? I hope you are not called a "data man" like I once was by a UCI Chancellor. I didn't want to be a data reporter. I wanted to be more—to be considered an expert.

What can I (or you) be an expert in? To find out, it's time to define the primary purpose of IR.

Slide 21 (Primary Purpose of IR)



The primary purpose of IR is to help your college succeed through decision support. This has been documented over and over again, most recently in the report published by the Association for Institutional Research. If the primary purpose of IR is to support decision making, then that is our specialty. That is our expertise. IR professionals should specialize and become experts and campus leaders in decision support.

Slide 22 (Decision are Based on Future Events)

We tend to focus, however, on presenting historical data and claim that's decision support. Historical data provides good content and often context, both of which are needed and important. In fact, accountants, planners, budgeteers, and many others at your campus provide excellent reports containing historical data. Higher education decision-makers also appreciate well organized and well presented data and reports from institutional research about what has already happened. It gives them that needed

content, and, hopefully, context. Campus leaders can then speak "factually"! However, expecting the past to continue into the future can lead to faulty analysis. Experience has taught campus leaders that things do change and often unexpectedly. Our campus leaders want to be prepared for the unexpected!



Decisions are not made about past events. Decisions are made about what is expected to happen in the future.

For example, when you are driving and you need to make a turn on a particular street, you want to know how soon you will arrive at that street. Your primary concern is what streets and intersections you are approaching and if you should get ready to make your turn. The streets that you have already passed are interesting pieces of information, and

may be useful content and context, but what lies ahead is the relevant and needed information to help you make the decision when to turn.

Our college leaders, as they are "driving" the campus decision-making car, want good information about what potential roadblocks and intersections they are approaching. That helps them decide to make a turn, continue straight, or stop and ask for directions. That future-oriented information will help them make that decision. We have to make it our mission to help our leaders "look ahead".

Many people at your campus can support decision-making. That's true. But, IR professionals have something that none of these other professions have—we have the data! We have the data, and are quite properly proud of the quality of our data. We are in the unique position of having data sets about students, expenditures, employees, research, teaching, and having access to national databases. An IR office usually has a complete package of data that no other office on campus has.

IR professionals should be leaders in the analysis and presentation of data for decision-making. They must use it not just to report on what has already happened, but also use the data, the relationships between data sets, and insightful analysis to develop possible outcomes resulting from a decision. Help your presidents, chancellors, etc, make decisions about possible future events by using the data! This is how an IR office can and should support decision-making. Your campus leaders will begin asking the decision-support experts in the IR office for advice about decisions.

When I was in graduate school, I learned that "everything depends on everything else." That means that when a decision is made, it is very likely that the decision will create expected and unexpected changes. A leader in IR helps campus decision-makers not only understand the possible desired and expected results from a decision, but also to understand the possible undesired or unexpected results from a decision. This is the type of analysis that college leaders want and need to be able to reduce the risks associated with a decision. IR professionals need to become leaders in decision support by using the data and their skill in analysis to help reduce the risks associated with a decision. College leaders have often never been given this support before or even realized how much it is needed until it is presented to them. It makes them become more aware of the value and utility of their IR professionals and their IR office.

Slide 23 (Specialize in decision support)



Accountants, counselors, planners, and budgeters all specialize. IR professionals also need to specialize in decision support. If "the primary purpose of IR is to help your college succeed through decision support," then re-focus your IR work and focus on that single purpose of IR. All your work should be structured to help your college succeed. This will not be easy because many people on college campuses have come to expect an IR office to take a secondary or supportive role to evaluators, or to produce reports that satisfy

accrediting agencies, or to supply historical data that the budget officer can use to create instructional costing models. But why not take a leadership role in your current job? Let me present three possible scenarios.

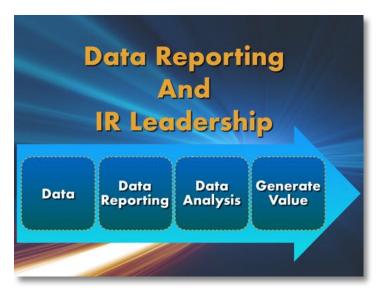
Slide 24 (Assessment and IR Leadership)



Assessment seems like a new role for IR, but it has been around for at least 40 years; it's just been called by different names. Whatever its name, it is an evaluation of a program or function on campus. If you are in charge of an assessment program, then the purpose of any assessment should be to help our college succeed. That is, how much does the program contribute to your college's success? For example, if a program's goal is to improve graduation rates, then establish graduation rate goals and timelines to evaluate the

achievement of the goals. Then use your assessment to advise decision makers about the success or failure of the program, and, most importantly, options for future success. Give your provost decision options based on the expected success of the program. Help the program succeed so it helps your college succeed.

Slide 25 (Reporting and IR Leadership)



Many of you have heard me say that IR should not be reporting simple facts and figures. That's a job for operational offices or your IT function. How many times have you been asked to

- report the number of Doctor Degrees awarded.
- report the number of fields in which Ph.D.'s can be awarded.
- report the number of full-time instructional faculty.

If this is your job, I will advise you to do it exceptionally well. Use your data, and reporting and analysis skills to

create reports that are valued. The most valued data reports are the ones that support decisions. Think about how the reports are used and for what purposes. Structure reports that provided precisely needed information, especially for your decision makers.

Go a step further and be sure your data reports are clear, easy to understand, and guide decision.

Here's another way to look at it: A data report is like a joke. If you have to explain it, it's not that good.

One approach that I used was to work closely with my public relations office. They have a perspective that is useful to senior decision makers and often have a design staff that can assist in data report design. My point here is to use the advice and services from other experts (and decision makers) to help you improve your data reports so each is useful and valued. These types of data reports will affect decisions directly or indirectly. This will help your campus be successful.

Slide 26 (Financial Analysis and IR Leadership)



A lot of IR professionals are nervous about financial analysis. Eventually, every decision on your campus will involve some sort of allocation or reassignment of financial resources. Many of us have been involved with financial analysis, but usually in a supportive role. My experience is that most financial analysts or budget staff look at short time frames, often just for the last or next year. I think of resources as a flow over longer periods of time. Resources come in and resources go out over multiple years that can be used to help

programs and your college succeed.

Earlier I mentioned by experience with helping change the University of California student funding formulas. That is one example of understanding the flow of resources. Another is when I was at UCI. At that time, the state of California would fund only a predetermined number of new freshmen. But, beginning in the students' second year, all students would be fully funded. Showing that the students fees (now called tuition) would cover the cost of instruction during the freshmen's first year, UCI decided to enroll more freshmen than the pre-determined and funded number. That helped UCI grow faster and receive more very valuable financial resources. Those additional resources helped UCI achieve its goals and to be more successful.

Slide 27 (To become a leader in IR)

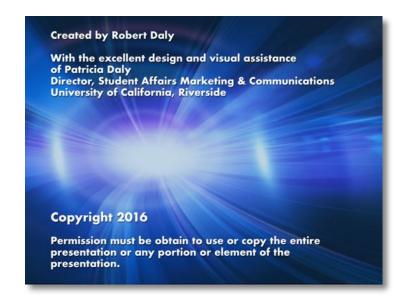


I started this presentation by talking about how Professor Terenzini's "Tiers of Intelligence" are related to leadership in IR. Those provided us with a very useful roadmap to understand what skills are needed to become a leader in institutional research. With the help of many of my IR colleagues, I developed lists of the skills and characteristics found in a leader in IR. I talked about the growth in the number of duties of institutional research and how that can blur the understanding of the purpose of an IR office. However, by

defining the primary purpose of institutional research as helping your college succeed through decision support, IR professionals can be leaders in institutional research by specializing in decision support. IR professionals have a special advantage over others on campus in decision support, and that is the ownership of a large number of data sets. IR professions should be using those data sets to focus on the primary purpose of IR.

So, that is my challenge to you—become an expert in decision support by using your data and analytical skills to help your college or university succeed. You will become a leader in institutional research, become a leader for your IR office, and become a leader at your college. Help your college succeed by specializing in and becoming a leader in decision support.

Slide 28 (Credits)



Some Things to Read

Gmitter, Frederick; Hu, Xulan (1990). "The possible role of Yunnan, China, in the origin of contemporary *Citrus* species (Rutaceae)". *Economic Botany* **44** (2): 267–277.

Kim, Larry, "21 Places to Learn Critical Skills That Will Change Your Life", Inc., http://www.inc.com/larry-kim/21-awesome-places-to-learn-critical-skills-that-will-change-your-life-.html.

Knight, William E., Leadership and Management in Institutional Research: Enhancing Personal and Professional Effectiveness, 2014, Association for Institutional Research, <airweb.org>. (Part V. Developing Yourself as a Leader is very relevant to this presentation.)

Saupe, Joe L., *The Functions of Institutional Research*, 2nd edition, 1990, Association for Institutional Research, airweb.org.

Suslow, Sidney, "Opening Address for First Annual Meeting", California Association for Institutional Research, February 1971, http://www.cair.org/wp-content/uploads/sites/474/2015/07/cair2001suslowspeech.pdf.

Swing, Randy L., and Ross, Leah Ewing, "A Statement of Aspirational Practice for Institutional Research", The Association for Institutional Research, Report.pdf, 2016.

Terenzini, P.T. (1993). "On the nature of institutional research and the knowledge and skills it requires", Research in Higher Education, 34(1), 1-10.

Terenzini, P.T. (2013). "On the nature of institutional research revisited", Research in Higher Education, 54(2), 137-148.

Volkwein, J.F., Liu, Y. and Woodell, J., (2012), "The Structure and Functions of Institutional Research Offices", Chapter Two in *The Handbook for Institutional Research*, published by AIR and Jossey-Bass, edited by Richard Howard, et al.

Volkwein, J. Fredericks (2008). "The Foundations and Evolution of Institutional Research", Chapter 1 in *Institutional Research: More than Just Data* (Dawn Terkla, Editor). *New Directions for Higher Education* (Number 141) San Francisco: Jossey-Bass, pp. 5-20.

Webber, Karen L., "Alignment of IR Work to Terenzini's Tiers of Intelligence", University of Georgia, https://www.researchgate.net/publication/279173184, June 2015.