

Challenges in Communicating Innovative Assessment Approaches

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Seattle, WA

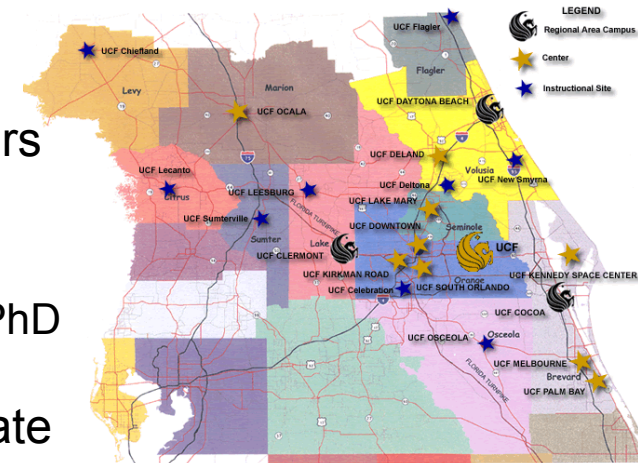
June 24, 2003

Session Overview

- Role of assessment
- Assessment methods
- Innovation
- Barriers to acceptance
- Challenges in communication
- Innovative assessment approaches
- UCF case study

The University of Central Florida

- Established in 1963 in Orlando Florida (first classes in 1968), Metropolitan Research University
- Grown from 2,600 to 39,000 students in 34 years
 - 32,500 undergraduates and 6,500 graduates
- Doctoral intensive
 - 76 Bachelors, 62 Masters, 3 Specialist, and 20 PhD programs
- Second largest undergraduate enrollment in state
- Approximately 1,000+ faculty and 2,800 staff
- Six colleges and two schools
 - Arts and Sciences, Business Administration, Education, Engineering and Computer Science, Health and Public Affairs, Honors, Optics, and Hospitality Management



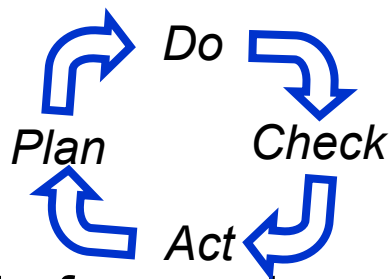
Many Definitions of Assessment

- Dictionary definition: **Assessment** is the act of **assessing**; **appraisal**; **evaluation** (Webster)
 - To **Assess** is to estimate or **judge** the value, character of, etc.; **evaluate**
 - To **Appraise** is to estimate the nature, quality, importance
 - To **Evaluate** is to **judge** or determine the significance, worth, or quality of
- Higher education uses
 - **Assess** student learning; **Assess** student development; Classroom **assessment**; **Assess** quality of programs; **Assess** quality of support services; **Assess** university or college performance

What Do We Mean by Program Assessment?

- It is a formative assessment process designed to support program improvement

- It is continuous



- It is focused on improvement
 - Student learning
 - Student development
 - The institution and its people

Why Do It?

- External drivers
 - Regional and program-level accreditation criteria
 - Documentation that you have an established an effective assessment process that leads to continuous improvement
 - Baldrige Award
- Internal drivers
 - Good management
 - Quality motivation
 - Knowing where you are
 - Knowing where you have been
 - Knowing what is possible and how to get there

Who Within the Institution Has to Do It?

- Educational programs (quality of student learning and of research and service)
 - All levels: Associates, Bachelors, Masters, Doctoral
 - All disciplines and special programs (e.g., General Education)
 - *Student outcomes-based*
- Administrative and Educational Support Services
 - Admissions, student support offices, administrative support offices, budget offices, computer technology support offices
 - *Educational support-based*

Assessment Methods

- Direct methods
 - Demonstrate competence (exams, projects, simulations, portfolios, juried activities, licensure and professional exams)
- Indirect methods
 - Reflect on learning, proxy information (questionnaires, interviews, focus groups)
- Qualitative and quantitative approaches
- Predominantly single variable, single objective focus
 - Occasional multivariate analyses

(See Palomba and Banta, *Assessment Essentials*, Josey-Bass)

Innovation

- in·no·vate—to begin or introduce (something new) for or as if for the first time
- in·no·va·tive—marked by or given to innovations
- Innovation issues
 - Level of focus—
 - outcomes/tasks
 - program as a whole
 - Method
 - do what we know
 - allow something new
 - Satisfy assessment purpose—continuous improvement

Communication Elements

- Sender
- Message
- Communication channel
- Receiver

Failure in any element means communication
FAILS

Communication in Assessment

- Accreditors
- Quality assurance reviewers
- Users
- Participants

Barriers to Acceptance

- Culture
- Climate
- Not invented here
- “Discipline” bias
- Not standard approach
- Workload
- Too difficult to understand

Organizational Culture

- “A pattern of shared basic assumptions that the group has learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore to be taught to new members as the correct way that you perceive, think, and feel in relation to those problems.”
(Schein, <http://www.tnellen.com/ted/tc/schein.html>)

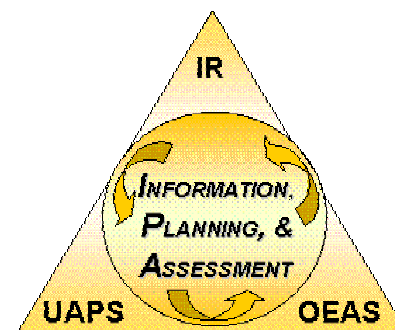
More Organizational Culture

- Everything one needs to know to function in a society, group, or organization
- What we take for granted about how to act and think
- A sense of how one is doing
- A sense of knowing what is going on
- The capacity to choose from acceptable alternative lines of action
- A “repertoire” or “tool kit” for knowing how to act and think

(DiTomaso, <http://www.accounting.rutgers.edu/raw/faculty/ditomaso/ob9-4/sld004.htm>)

University Analysis and Planning Support

- The Mission of the UCF Office of University Analysis and Planning Support is to enhance the management capability within the university by providing timely analysis and research support to academic and administrative units across a broad spectrum of management responsibilities, ranging from strategic planning to detailed program management.



- Goals/Objectives
 - Strategic Planning Support
 - Systems and Management Analysis and Planning Support
 - Enrollment Planning Support
 - Exploratory Data Analysis

Assessment and Performance Measurement

- How are we doing relative to some standards or targets?
- What is going right and what is going wrong?
- What should we change to do things “better?”
- How do we “measure” our goals and objectives?
 - Things we do?
 - Things we can’t do?

Standard Approaches

- Parameters
 - 3-5 objectives
 - 2-3 measures each
- Methods
 - Surveys
 - Focus groups
 - Performance data
- “Objectives”
 - Core activities
 - Unique tasks

Example Assessment Plan (1 of 7 objectives)

Bachelor of Science in Civil Engineering
<i>Expanded Statement of Institutional Purpose</i>
<p><u>Institutional Mission Reference</u> The B.S. degree program in Civil Engineering offers a high quality degree program that meets national standards of excellence. It is a significant component of the University's commitment to science, engineering, and technology, particularly in fields of major importance to the region. The program provides the skills and knowledge unique to Civil Engineering that support the engineering profession in meeting the growing needs of the region and the nation. Simultaneously, the program comprises the general education components that yield a well-rounded graduate who is aware of societal needs and issues. The program faculty are committed to the highest quality of teaching and discovery of new knowledge.</p>
<p><u>Institutional Goal(s) Supported</u> The B.S. degree program in Civil Engineering supports the University goals of (a) quality undergraduate programs, (b) quality teaching, (c) application of engineering principles to serve the local community through applied research and development, and (d) life-long learning. The major strategic initiatives supported by the department are Strategic Initiative 1 (High-Quality, Distinctive Undergraduate Programs), Strategic Initiative 8 (Enhanced Quality of University Life), Strategic Initiative 9 (Inclusive and Supportive University Environment), and Strategic Initiative 10 (Strengthen and extend the existing relationships with community colleges, the U. S. Navy, and industry).</p>
<i>Intended (Student) Outcomes, Methods for Assessment, and Criteria for Success</i>
<p><u>Intended Outcome 1</u> Graduates of the Civil Engineering program will demonstrate that they have achieved a satisfactory mastery of the knowledge, techniques, skills, and modern tools of their discipline.</p>
<p>Method for Assessing Outcome 1 and Criterion for Success: 100% of graduates will earn at least satisfactory levels of performance on the technical portions of their senior project course(s), and 50% will earn good to excellent evaluations. Evaluations will be performed by a faculty team with industry representatives when appropriate.</p>
<p>Alternate Method for Assessing Outcome 1 and Criterion for Success: On the basis of senior exit surveys/interviews, at least 75% of participating students will rate the overall program satisfactory to excellent.</p>

Example Assessment Plan (5 measures)

Mission

The Civil Engineering program faculty strives to create a high quality learning experience for our students. The program will provide a broad engineering education to our graduates that will prepare them for both current and future professional challenges. It will promote a commitment to continued scholarship and service among our graduates and foster a spirit of innovation so that our graduates are positioned to take advantage of new technology in our profession. It will also promote an environment that is inclusive and diverse.

Objective 1

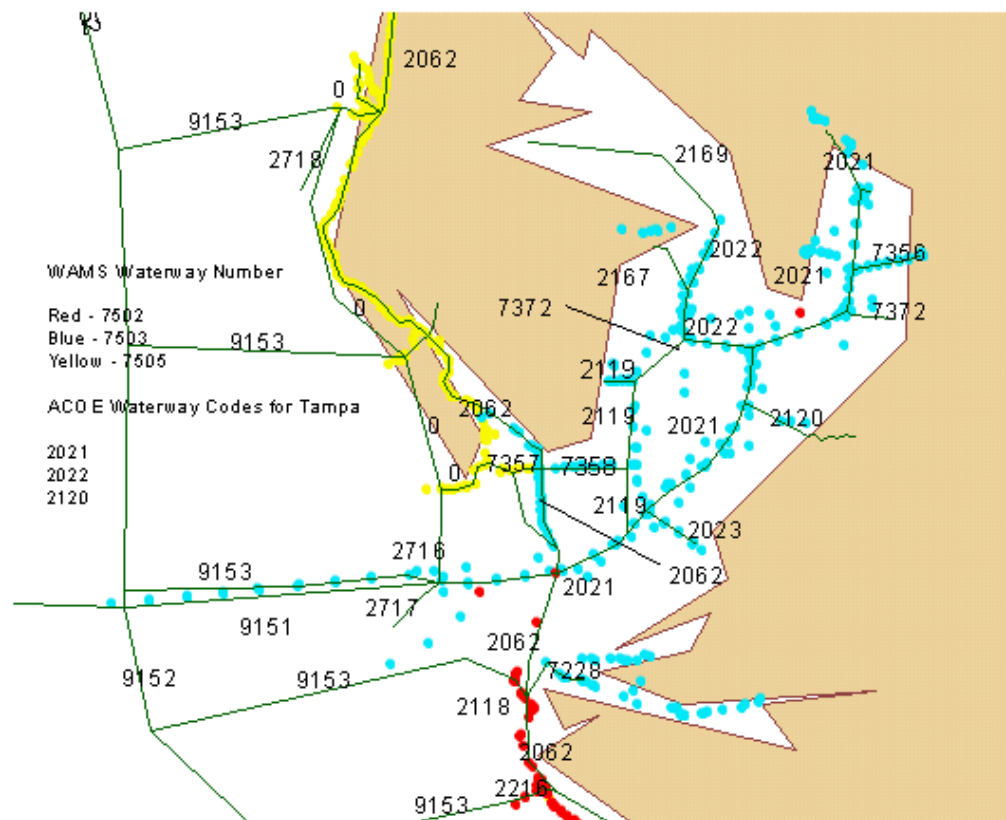
Graduates will solve problems that involve differential and integral calculus, differential equations, analytical and numerical solutions, and statistics.

- 1.a. Courses in Statics and Mechanics of Materials that follow Calculus courses will be used to assess knowledge of differential and integral calculus every semester. At least 75 % of our students will demonstrate proficiency by getting a minimum grade of C on the question(s) in differential and integral calculus respectively.
- 1.b. The course in Fluid Mechanics that follows the Differential Equation course will be used to assess knowledge of differential equations every semester. At least 75 % of our students will demonstrate proficiency by getting a minimum grade of C on the question(s) in differential equations.
- 1.c. The course in Hydrology will be used to assess knowledge of numerical methods once every year. At least 75 % of our students will demonstrate proficiency by getting a minimum grade of C on the question(s) on numerical solutions.
- 1.d. The course in Transportation Engineering that follows the Probability and Statistics course will be used to assess knowledge of statistics once every year. At least 75 % of our students will demonstrate proficiency by getting a minimum grade of C on the question(s) dealing with statistics.
- 1.e. In the mathematics sub-group of the FE examination administered twice every year, our students will equal or exceed the national average. All students are required to take this examination.

Example Administrative Assessment Plan (1 of 6 objectives)

University Planning and Institutional Research
<i>Expanded Statement of Institutional Purpose</i>
<u>Institutional Mission Reference</u> UPIR assists in developing and assessing all goals and objectives related to the University's Mission and Strategic Plan.
<u>Institutional Goal(s) Supported</u> UPIR assists in developing and assessing all goals and objectives related to the University's Mission and Strategic Plan.
<i>Intended Objectives for your unit, Methods for Assessment, and Criteria for Success for each Intended Objective</i>
<u>Intended Objective 1</u> To provide analytical and technical support to the executive management of the University to support data based decision-making.
Method for Assessing Objective 1 and Criterion for Success: External review -- It has been nearly 10 years since the last review by an outside consultant who is an expert in institutional research. The consultant will be asked to interview (individual or group) the Executive Officers, Council of Academic Deans, selected department chairs (faculty), selected department heads (staff), and UPIR staff and present a report evaluating our effectiveness and making recommendations.
Alternate Method for Assessing Objective 1 and Criterion for Success: The SACS Self Study will evaluate the UPIR Office and make recommendations for improvements.
Alternate Method for Assessing Objective 1 and Criterion for Success: Customer Satisfaction Survey and/or Focus Groups.

Research Experience: Waterway Performance Assessment



Armacost, Robert L. and Pet-Armacost, Julia, "Risk-based Management of Waterway Safety,"
International Journal of Emergency Management. Vol. 1, No. 2, (2002), pp. 96-109.

Coast Guard Goals

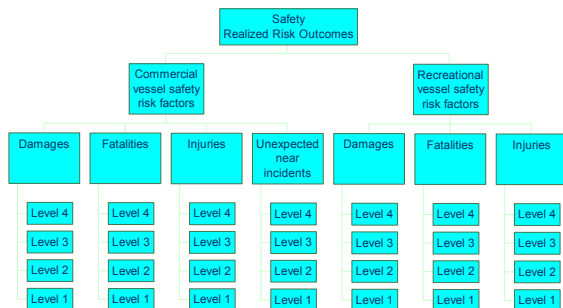
- Maritime safety
- Maritime mobility
- Protection of natural resources
- Risk-based thinking
 - Reactive—realized outcomes (e.g., collisions, spills)
 - Proactive—preventative or facilitative (e.g., inspections, aids to navigation)

Risk-Based Performance Indicators

- Realized Risk Outcomes
 - The direct results or consequences of vessel traffic and activities on the waterway
 - Directly measured indicators of waterway performance
- Inferred Risks
 - Negative outcomes that are ***inferred*** from physical, operational, activity level, and sensitivity “system” characteristics--the “risk drivers”
 - Indirect indicators of waterway performance

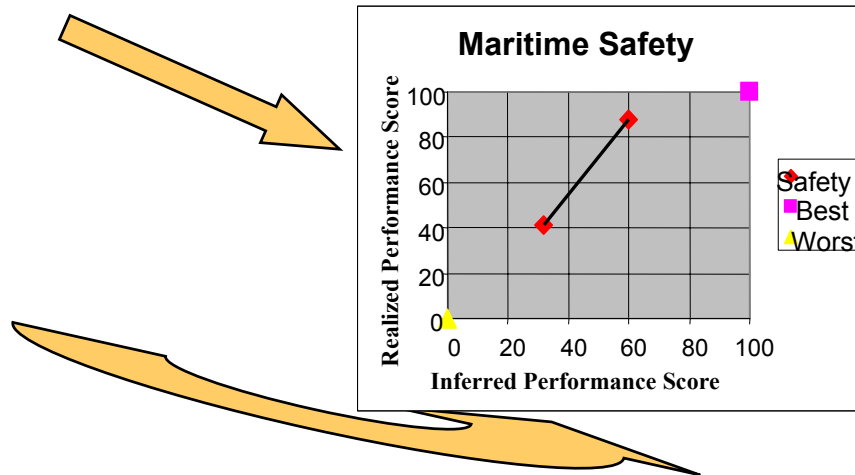
WET Performance Scores

Tree values



Translate to performance scores

Performance map



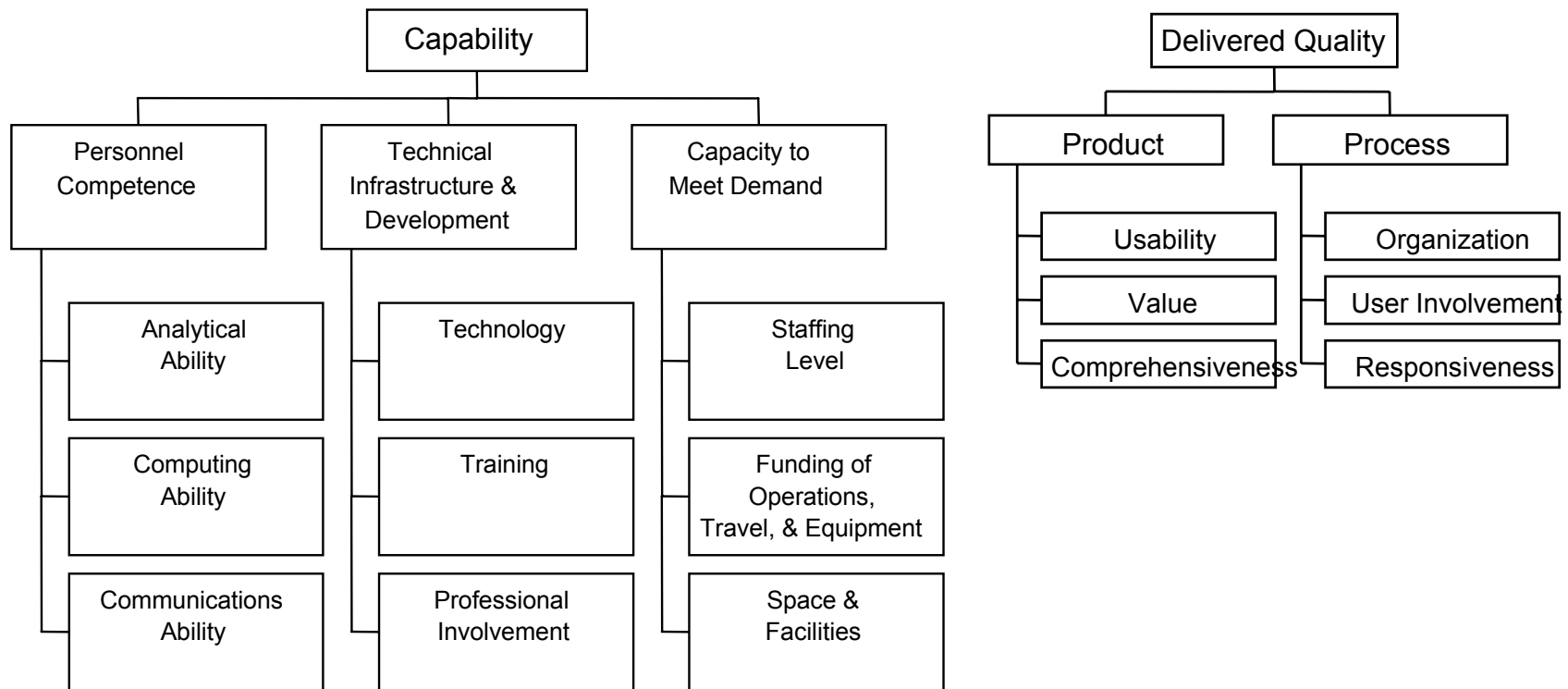
Weighted Performance Tree Approach

- Identify “Realized” and “Inferred” outcomes
- Identify supporting measures/characteristics and create hierarchical trees
- Determine weights reflecting the relative importance of the outcomes and measures (Analytic Hierarchy Process)
- “Rate” performance on each of the measures/characteristics
- Compute overall performance score
- Identify performance gaps on individual measures/characteristics

UAPS Performance Tree Application

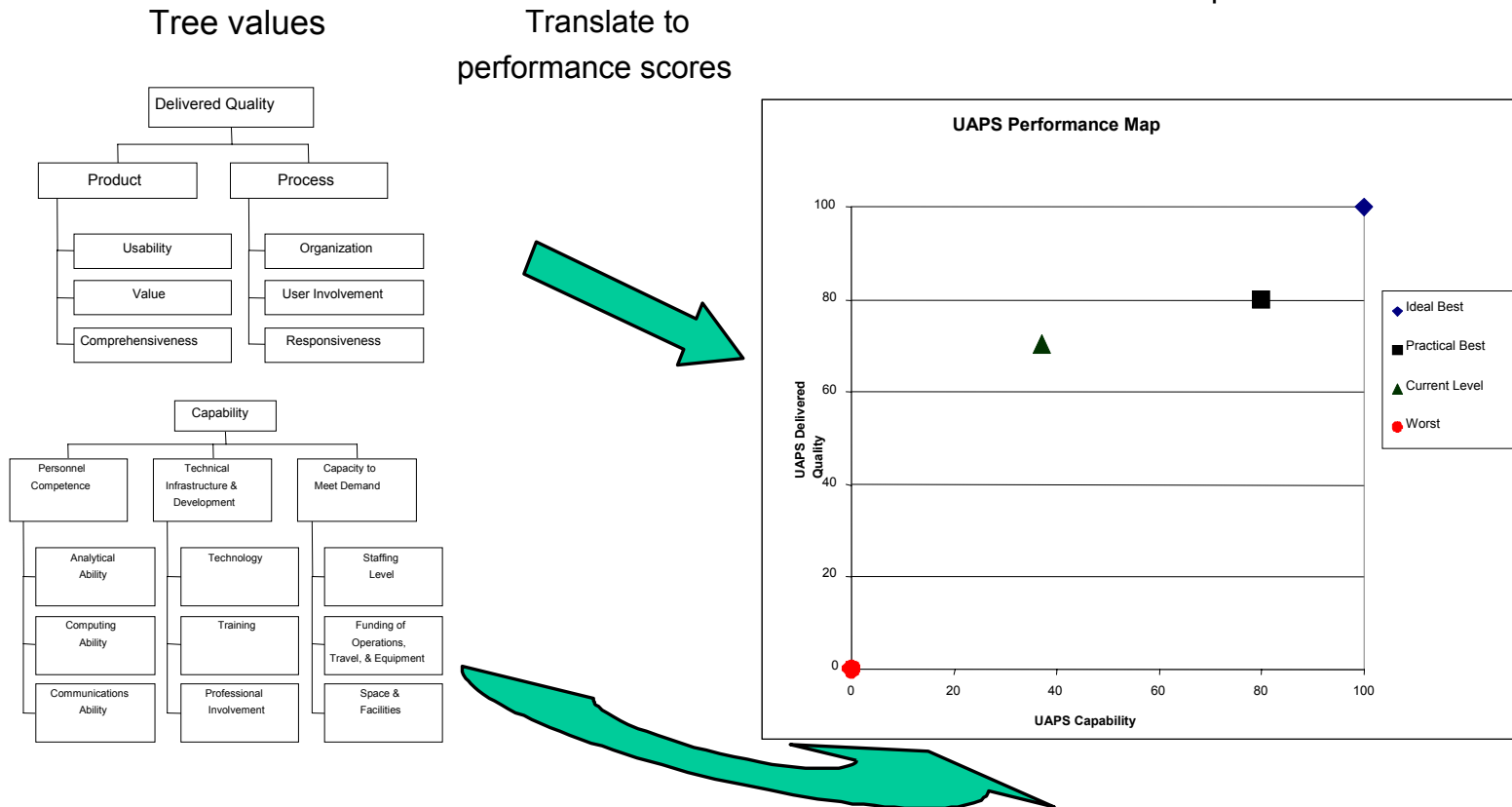
- Treat each goal/objective separately
 - Strategic Planning Support
 - Systems and Management Analysis and Planning Support
 - Enrollment Planning Support
 - Exploratory Data Analysis
- Realized Performance—***Delivered Quality*** [*Performance Objective*]
 - Product
 - Process
- Inferred Performance—***Capability*** [*Enabling Objective*]
 - Personnel competence
 - Technical infrastructure and development
 - Capacity to meet demand
- Complete staff involvement

UAPS Performance Trees



UAPS Composite Performance Map

Performance map



Implementation

- Importance weight elicitation
 - Persons familiar with the operation of the office and knowledgeable about the responsibilities to the university
 - Different weights for different goals/objectives
- Delivered Quality Assessment
 - Distributed to every person receiving any service or interaction with the office in the past year
- Capability Assessment
 - Completed by a select group of individuals familiar with the various capabilities of the office and the staff

Example Weight Elicitation Survey—Rating Levels

Personnel Competence: Analytical Ability

Analytical Ability refers to the capability that the personnel have to identify relevant problems, determine what methodological approaches can or should be applied, and the ability to apply the methodology, evaluate alternatives, and make appropriate recommendations to the sponsoring decision-maker. Modeling and data analysis abilities are crucial elements in this capability sub-measure.

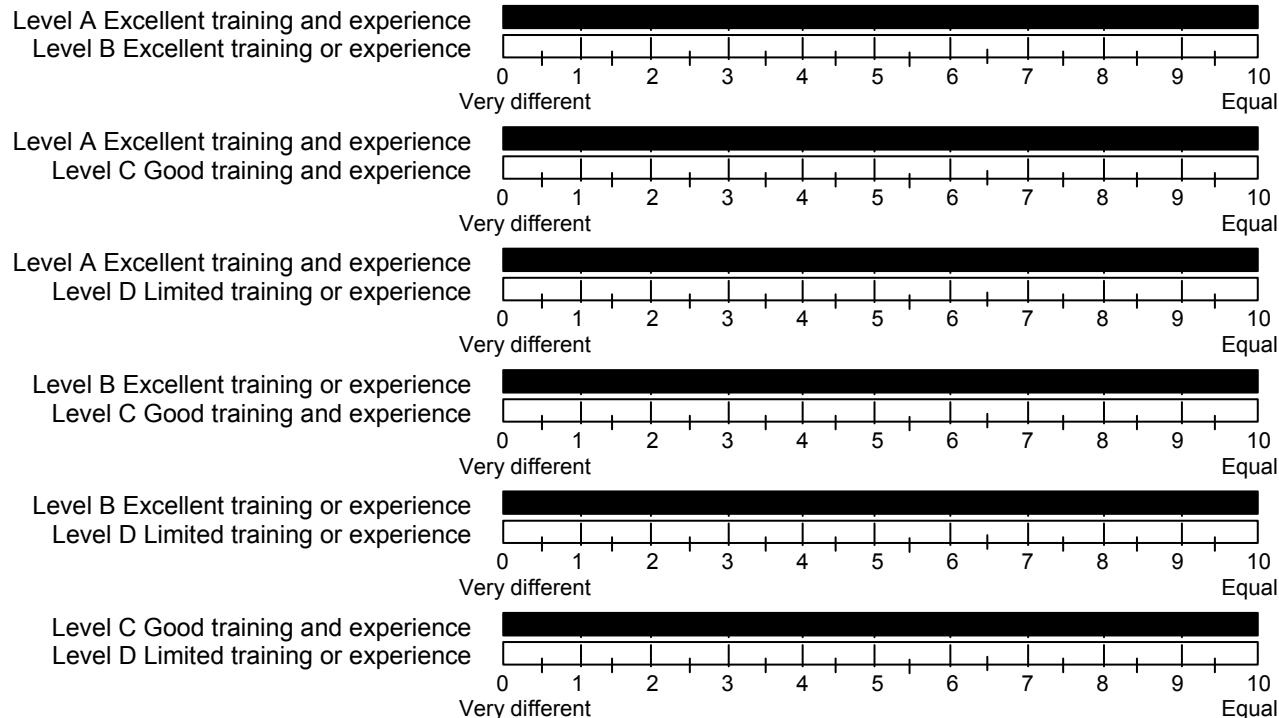
The four rating levels are:

- **Level A:** The professional staff has extensive analytical training and experience in modeling and statistical analysis. OPS staff has very strong analytical ability.
- **Level B:** The professional staff has extensive analytical training or experience in modeling and statistical analysis. OPS staff has potential for very strong analytical ability.
- **Level C:** The professional staff has good analytical training and experience in modeling and statistical analysis. OPS staff has potential for good analytical ability.
- **Level D:** The professional staff has limited analytical training or experience in modeling and statistical analysis. OPS staff has limited analytical ability.

Example Weight Elicitation Survey— Rating Level Pairwise Comparisons

Analytical Ability Rating Level Assessment:

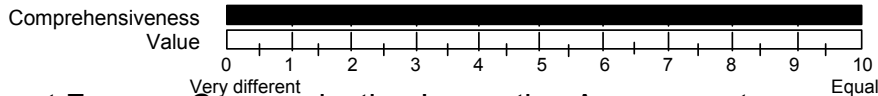
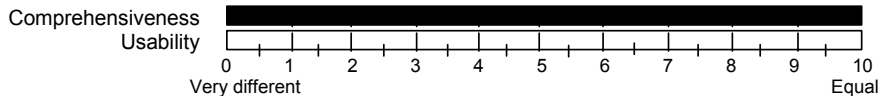
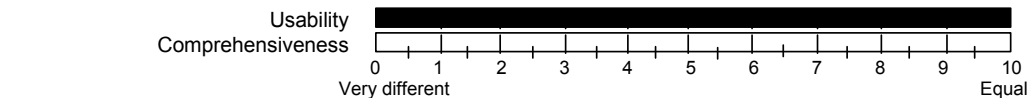
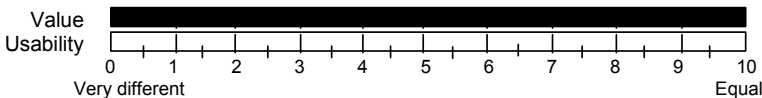
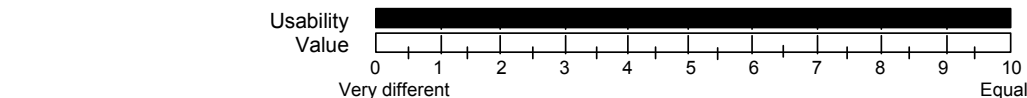
Place a mark on the *second* scale that represents the relative importance of **Level B analytical ability** in comparison to **Level A analytical ability** with respect to providing Personnel Competence necessary for quality UAPS work. Continue with other pairwise comparisons.



Example Weight Elicitation Survey— Measures/Attributes

Objective: Strategic Planning Support

Select the comparison pair so that the more important sub-measure is on the top (solid) bar. Place a mark on the *second* scale that represents the relative importance of **the lower sub-measure** in comparison to **the upper sub-measure** with respect to providing a quality Product necessary for quality Strategic Planning Support. Continue with other pairwise comparisons.



Example AHP Weight Results

Delivered Quality--Product: Usability

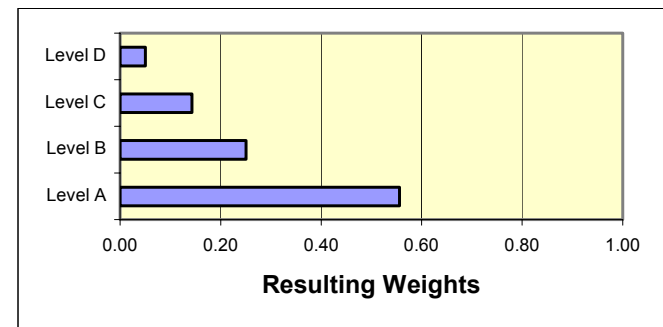
Pair	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	RM
(A,B)	7.5	7.0												1.38
(A,C)	3.5	3.0												3.09
(A,D)	0.5	0.5												20.00
(B,C)	6.0	5.0												1.83
(B,D)	6.0	2.0												2.89
(C,D)	2.0	6.0												2.89

Resulting Weights

Level A	0.56
Level B	0.25
Level C	0.14
Level D	0.05

AHP Matrix

1.00	1.38	3.09	20.00
0.72	1.00	1.83	2.89
0.32	0.55	1.00	2.89
0.05	0.35	0.35	1.00



Example Assessment Surveys

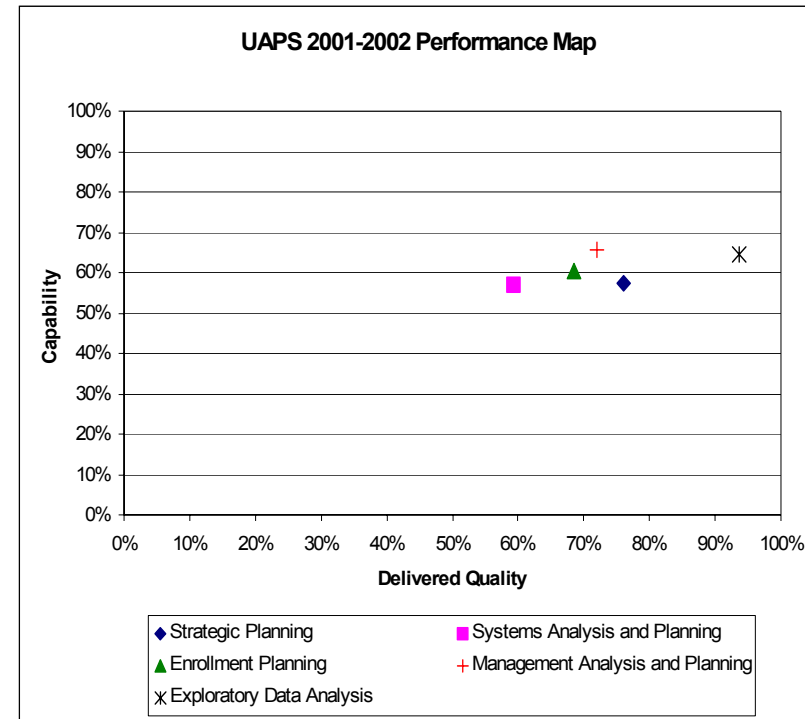
Group 1: Product

Product refers to what UAPS did. It is the product delivered or the service performed on behalf of a stakeholder. Products include analytical models, analysis of data and operations, studies of issues, consultation on problems, committee participation, reports, presentations, email responses, and other outcomes from task to support analysis and planning work. Delivered quality of the **Product** is assessed on three dimensions: usability, value, and comprehensiveness.

	Strategic Planning	Management Analysis and Planning	Enrollment Planning	Exploratory Data Analysis
<p>1. Usability Usability refers to the understandability and ease of use of UAPS' products.</p> <p>Rating Levels</p> <p>Level A The product was easy to use and understand by the user.</p> <p>Level B The product was useable and understandable for the user with limited training and direction.</p> <p>Level C The product was usable and understandable only to a technical user.</p> <p>Level D The product was too difficult to use and understand.</p> <p>N No rating</p>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
<p>Comments</p>				

2000-2001 Composite Results

<i>Objective</i>	<i>Delivered Quality</i>	<i>Capability</i>
Strategic Planning	76%	57%
Systems Analysis and Planning	59%	57%
Enrollment Planning	69%	60%
Management Analysis and Planning	72%	66%
Exploratory Data Analysis	94%	64%



2000-2001 UAPS Delivered Quality Results

DELIVERED QUALITY	Product			Process			Composite Performance
	Usability	Value	Comprehensiveness	Organization	User Involvement	Responsiveness	
Strategic Planning	86%	65%	71%	84%	70%	93%	76%
Systems Analysis and Planning	50%	48%	63%	55%	77%	87%	59%
Enrollment Planning	51%	62%	66%	87%	81%	85%	69%
Management Analysis and Planning	70%	55%	78%	87%	81%	78%	72%
Exploratory Data Analysis	86%	100%	90%	100%	100%	93%	94%

2002-2003 UAPS Capability Results

CAPABILITY	Personnel			Infrastructure			Capacity			Composite Performance
	Analytical Ability	Computing Ability	Communications Ability	Technology	Training	Prof. Involvement	Staffing Level	Funding	Space and Facilities	
Strategic Planning	69%	56%	66%	89%	44%	85%	23%	69%	48%	57%
Systems Analysis and Planning	51%	75%	66%	100%	38%	85%	14%	49%	48%	57%
Enrollment Planning	69%	75%	66%	94%	52%	85%	18%	49%	48%	60%
Management Analysis and Planning	51%	69%	76%	100%	41%	91%	11%	48%	51%	66%
Exploratory Data Analysis	69%	75%	66%	94%	38%	85%	23%	49%	48%	64%

Challenges in Communicating the Plan and the Results

- Barriers
 - Culture
 - Climate
 - Not invented here
 - “Discipline” bias
 - Not standard approach
 - Workload
 - Too difficult to understand
- New concepts
 - Performance trees
 - Composite measures
 - Relative weighting
 - AHP/pairwise comparisons
 - Multiple measures and sub-measures
 - Elicitation and rating surveys

Communication Constraints

- Communication mode
 - 5-column “Matrix”
 - Web-form
- Review mode of operation
 - Individual reviewers
 - Paper-based
 - No interaction
 - Depth v. superficial
- Time
 - Reviewer workload

Example Assessment Matrix

Unit Mission Statement	
<p>The Mission of the UCF Office of University Analysis and Research Support is to enhance the management capability within the University by providing timely analysis and research support across a broad spectrum of management responsibilities, ranging from strategic planning to detailed program management. Integral to this mission is to develop a capability to creatively identify data for those models that is accessible, relevant, and meaningful. The models and data access must provide direct support as well as empower academic and administrative units to utilize analysis and research results and models.</p>	
Objectives or Performance Indicators (include success targets)	2001-2002 Planned Procedures for Measuring Performance (ASSESSMENT INSTRUMENTS ARE UNDER DEVELOPMENT)
<p>1. Strategic Planning—UAPS will have the capability to provide adequate support to develop and maintain a continuous strategic planning process that implements strategic <i>thinking</i> and integrates strategic planning with operational planning and budgeting. Target: fully capable to meet realized demand with outstanding quality by 2002; fully capable to meet potential demand with high quality by 2004.</p>	<p>1.a. Capability Assessment (dimensions include: demand, staffing, training level, performance, funding, technology). Instrument to be developed during Spring2001. See concept description attached. 1.b. Quality Assessment (dimensions include: relevance, timeliness, contribution, importance, satisfaction). Instrument to be developed during Spring 2001. See concept description attached.</p>
<p>2. UCF Systems Analysis and Planning—UAPS will have the capability to provide ongoing support to develop and maintain systems models for the university that incorporate activities on the main campus, remote campuses, and the virtual campus. Target: fully capable to meet realized demand with outstanding quality by 2003; fully capable to meet potential demand with high quality by 2005.</p>	<p>2.a. Capability Assessment (dimensions include: demand, staffing, training level, performance, funding, technology). Instrument to be developed during Spring2001. See concept description attached. 2.b. Quality Assessment (dimensions include: relevance, timeliness, contribution, importance, satisfaction). Instrument to be developed during Spring 2001. See concept description attached.</p>
<p>3. Enrollment Planning—UAPS will develop and maintain high level undergraduate and graduate enrollment planning models that provide reliable estimates of student enrollment for near-term as well as long-term management decision support. Target: fully capable to meet realized demand with outstanding quality by 2002; fully capable to meet potential demand with high quality by 2004.</p>	<p>3.a. Capability Assessment (dimensions include: demand, staffing, training level, performance, funding, technology). Instrument to be developed during Spring2001. See concept description attached. 3.b. Quality Assessment (dimensions include: relevance, timeliness, contribution, importance, satisfaction). Instrument to be developed during Spring 2001. See concept description attached.</p>
<p>4. Management Analysis and Planning—UAPS will develop the capability to assist administrative and academic units in developing analytic models that will provide meaningful decision support information for ongoing operations. Target: fully capable to meet realized demand with outstanding quality by 2003; fully capable to meet potential demand with high quality by 2005.</p>	<p>4.a. Capability Assessment (dimensions include: demand, staffing, training level, performance, funding, technology). Instrument to be developed during Spring2001. See concept description attached. 4.b. Quality Assessment (dimensions include: relevance, timeliness, contribution, importance, satisfaction). Instrument to be developed during Spring 2001. See concept description attached.</p>
<p>5. Exploratory Data Analysis—UAPS will develop the capability to implement and utilize technology to identify, integrate, and isolate data that are essential for effective management as well as provide insights about relationships among university activities that can create opportunities for timely decisions to improve our operations. Target: fully capable to meet realized demand with outstanding quality by 2003; fully capable to meet potential demand with high quality by 2005.</p>	<p>5.a. Capability Assessment (dimensions include: demand, staffing, training level, performance, funding, technology). Instrument to be developed during Spring2001. See concept description attached. 5.b. Quality Assessment (dimensions include: relevance, timeliness, contribution, importance, satisfaction). Instrument to be developed during Spring 2001. See concept description attached.</p>

Assessment Plan Web-form

Unit/Program University Analysis & Planning Support

Mission ([Helpful Hints](#))

The Mission of the UCF Office of University Analysis and Planning Support is to enhance the management capability within the University by providing timely analysis, planning, and research support across a broad spectrum of management responsibilities, ranging from strategic planning

Objective 1 ([Helpful Hints](#))

STRATEGIC PLANNING—UAPS will provide adequate support to develop and maintain a continuous strategic planning process that implements and integrates strategic planning with operational planning and budgeting. The level of support is measured by assessing Strategic Planning

Measures: ([Helpful Hints](#))

STRATEGIC PLANNING CAPABILITY ASSESSMENT—The three measures and nine sub-measures described in the process section will be assessed using updated weight elicitation values and rating scores using the assessment instruments developed for the 2001-2002 results. The weight

STRATEGIC PLANNING DELIVERED QUALITY ASSESSMENT—The two measures and six sub-measures described in the process section will be assessed using updated weight elicitation values and rating scores using the assessment instruments developed for the 2001-2002 results

Initial Submission for 2002-2003

Objective 1

STRATEGIC PLANNING-- UAPS will provide adequate support to develop and maintain a continuous strategic planning process that implements strategic thinking and integrates strategic planning with operational planning and budgeting. Target Performance Level pends the development of performance tree weights. Assessments of the effectiveness of the UAPS office must focus both on the capability inherent in the office as well as the quality of the products and services that are actually delivered to its stakeholders. Thus, the assessments of the UAPS office with respect to strategic planning will take place on two dimensions: Capability, and Delivered Quality. Capability deals with the potential or the inferred ability to deliver products and services. Delivered Quality is the realization or realized ability to deliver those services. In particular, Delivered Quality represents the perceived effectiveness or usefulness of the products and services that have been delivered to particular stakeholders. Both Capability and Delivered Quality are characterized in hierarchical performance trees. Four rating levels, each described by unique qualitative scales characterize performance on each sub-attribute on each tree. When performance is assessed using the rating levels, an overall performance score is generated for each dimension for strategic planning. The complete 2002-2003 UAPS Assessment Plan Methodology can be found at <http://uaps.ucf.edu/UAPSassessment.html>.

Measures

•Strategic Planning Capability Assessment The attributes (sub-attributes) for the Capability tree include Personnel Competence (Analytical Ability; Computing Ability; Communications Ability), Technical Infrastructure and Development (Technology; Training; Professional Involvement), and Capacity to Meet Demand (Staffing Level; Funding of Operations, Travel, and Equipment; Space and Facilities). Weights for the attributes, sub-attributes, and rating levels will be determined using pairwise comparisons of the relative importance of the elements with respect to the next higher level in the performance tree and applying the eigenvector method to compute the weights. Relative importance elicitation for each tree for strategic planning will involve high-level stakeholders familiar with the desired operation of the office. Separate elicitation instruments will be used for each tree. Rating level assessments will be performed using a simple survey that includes the qualitative scales corresponding to the rating levels for the nine sub-measures in the tree. The survey will be distributed to all users in a functional area that were served by the office during the preceding year. The relative importance (weight) elicitation will take place during April-May 2002. The rating level assessments will take place during June-July 2002 covering performance for 2001-2002. The weights will be reviewed and updated if necessary in October-November 2002. The rating level assessments for 2002-2003 will take place during June-July 2003.

Review Comments—Revision Required

- “It seems that in an effort to be clear, the length of your objective and measures have taken on proportions that muddy the waters. Simplify & shorten the wording so that the “average” reader can understand what you want to do without having to think about it too hard.”
- “Again, HELP. I’m sure this has meaning for you, but for the reader who isn’t doing this work on a daily basis this is too complex. Listed here are measures and sub-measures, and weights of attributes and their sub-attributes, and various trees, and eigenvectors, etc. etc. Follow the “keep it simple” perspective.
- “I’m sure that this must have meaning to you & that the objective, once a person wades through it a few time, is measurable, but simplicity would help us all understand what you want to do and how you want to do it.”

Communications Failure?

- Too complex?
- Outside of reviewer's domain knowledge?
- Text description inadequate without figures and graphs?
- Did not use supplemental descriptions that were provided
- Workload to understand new concept too great?

Revised 2002-2003 Plan

Objective 1

STRATEGIC PLANNING-- UAPS will provide adequate support to develop and maintain a continuous strategic planning process that implements strategic thinking and integrates strategic planning with operational planning and budgeting. The level of support provided is measured by assessing Strategic Planning CAPABILITY and DELIVERED QUALITY on a 0-100 aggregate scale using nine sub-measures for Capability and six sub-measures for Delivered Quality. The fifteen sub-measures represent outcome areas that identify specific areas for performance improvement. The measures and sub-measures are weighted to reflect their relative importance in achieving the strategic planning objective. Target Performance Level for 2002-2003 are: Strategic Planning Capability—65% of practical best; Strategic Planning Delivered Quality—75% of practical best. The complete 2002-2003 UAPS Assessment Plan Methodology (including sample instruments) can be found at <http://uaps.ucf.edu/UAPSassessment.html>.

Measures

STRATEGIC PLANNING CAPABILITY ASSESSMENT. The measures [sub-measures] for the hierarchical CAPABILITY assessment tree include (1) Personnel Competence [Analytical Ability; Computing Ability; Communications Ability], (2) Technical Infrastructure and Development [Technology; Training; Professional Involvement], and (3) Capacity to Meet Demand [Staffing Level; Funding of Operations, Travel, and Equipment; Space and Facilities]. Weights for the measures, sub-measures, and rating levels for strategic planning support will be determined using surveys of high-level stakeholders familiar with the desired operation of the office. Rating level assessments will be performed using a simple survey to be distributed to all users of UAPS strategic planning support that were served by the office during the preceding year. The relative importance (weight) elicitation and the rating level assessments will take place during June-July 2002 covering performance for 2001-2002. The weights will be reviewed and updated if necessary in October-November 2002. The rating level assessments for 2002-2003 will take place during June-July 2003.

Review Comments—No Addition Revisions Required

- “I still would like to see the objectives and measures simplified and shortened. Assessment plans really need to be written for the ***average reader.***” (*emphasis added*)
- “Each year, the UAC tries to assist units come closer to what is being requested by the committee. You have clearly put effort into making revisions & I respect that. You have made some progress so I am not now asking for further revisions this year. I suggest that you continue to think about how to ***simplify your measures,*** however, because I can imagine that the next reviewer will have a similar reaction.” (*emphasis added*)

2003-2004 Plan Submission

- UCF added a “Process” section to permit a description of components, performance trees, etc.
- Model and approach essentially unchanged

Objective 1

STRATEGIC PLANNING—UAPS will provide adequate support to develop and maintain a continuous strategic planning process that implements and integrates strategic planning with operational planning and budgeting. The level of support is measured by assessing Strategic Planning CAPABILITY and DELIVERED QUALITY as described in the process section. TARGET PERFORMANCE LEVELS: Strategic Planning Capability—75% of practical best; Strategic Planning Delivered Quality—85% of practical best.

Measures

- STRATEGIC PLANNING CAPABILITY ASSESSMENT—The three measures and nine sub-measures described in the process section will be assessed using updated weight elicitation values and rating scores using the assessment instruments developed for the 2002-2003 results. The assessment will use the weight elicitations that were provided by high-level stakeholders familiar with UAPS operations in 2002-2003. High-level stakeholders familiar with UAPS capability to provide UAPS strategic planning support will complete the rating level assessments for 2003-2004 in Summer 2004.

2003-2004 Review Comments

- “Very good! Is it possible to do? If so, how accurate?”
- “Very Good Objectives. Good to have more than one person in the participating people’s list.”

What Changed?

- New reviewer?
- Simplified description?
- Details moved to Process section?
 - Process section is not formally reviewed
- Acceptance of innovative approach?
 - Composite performance for functional areas using weighted performance and capability measures

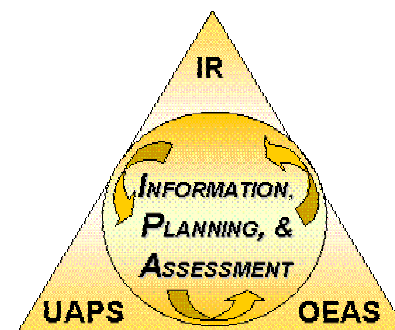
And now for the rest of the story!

Assessment Experiment

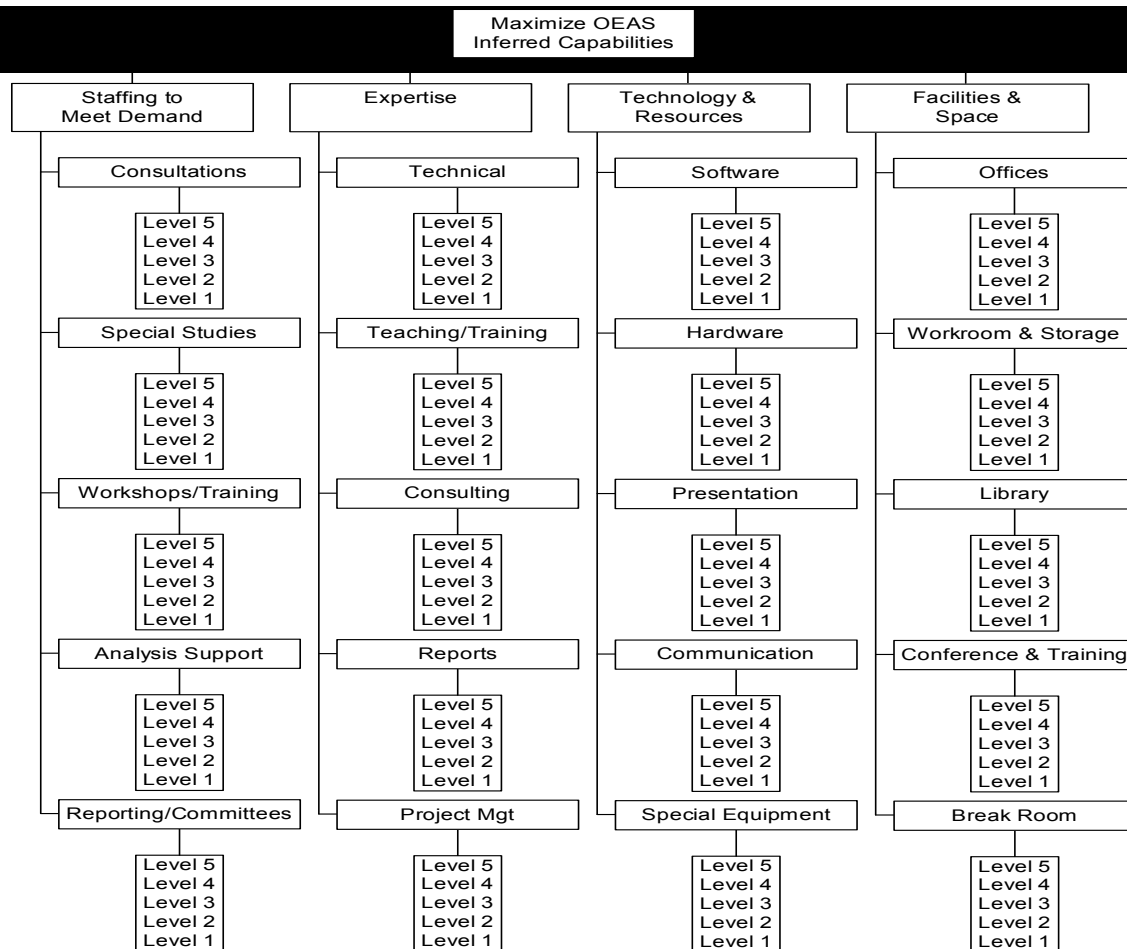
- Parallel approaches to performance assessment
 - University Analysis and Planning Support
 - Operational Excellence and Assessment Support
- Full staff involvement
- Creating understanding for new offices
- Weighted performance tree approach
 - Realized
 - Inferred
- Compare results

Operational Excellence and Assessment Support

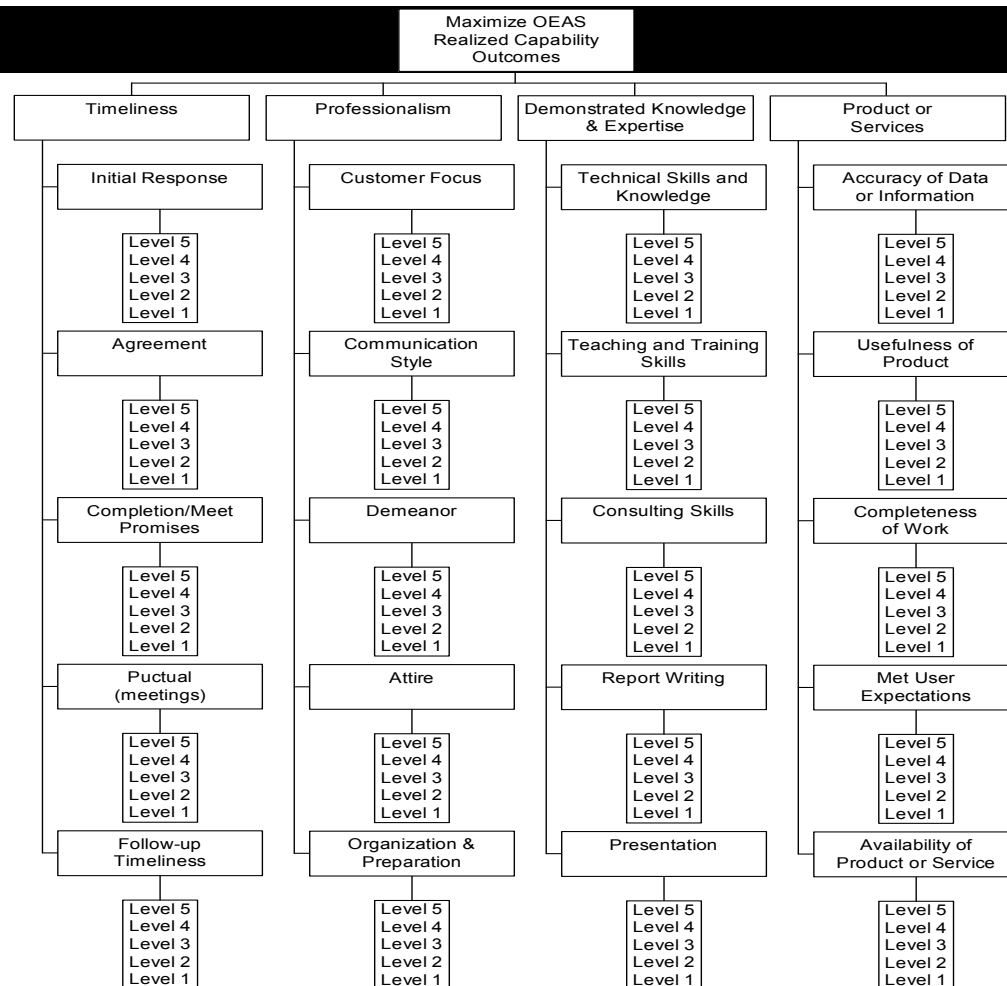
- The Mission of the UCF Office of Operational Excellence and Assessment Support is to improve the quality of University operations and academic programs by providing support to administrative and academic units in a broad range of activities, spanning from preparing for regional and program accreditation to conducting and analyzing surveys.
- Goals/Objectives
 - Assessment Support
 - Survey and Statistical Studies Support
 - Process Analysis and Special Studies Support



Capability (Enabling Objectives)



Quality (Performance Objectives)



OEAS 2001-2002 Plan

- **Objective 1**
 1. OEAS will have the capability to provide adequate support to the administration and the UAC to monitor and evaluate the institutional effectiveness process; and will have the capability to provide timely and quality assistance to academic and administrative units in developing and implementing assessment plans
- * 1.a. Capability Assessment (Staffing to meet Demand, Expertise, Facilities, Technology)
- * 1.b. Delivered Quality (Timeliness, Professionalism, Knowledge, Quality of Products)
- **Objective 2**
 2. OEAS will develop and maintain a high level of capability to design, distribute and analyze university-level and ad hoc surveys and conduct statistical studies; and provide timely and useful feedback to academic and administrative units.
- * 2.a. Capability Assessment (Staffing to meet Demand, Expertise, Facilities, Technology)
- * 2.b. Delivered Quality (Timeliness, Professionalism, Knowledge, Quality of Products)
- **Objective 3**
 3. OEAS will develop and maintain a high level of capability to assist administrative and academic units with analyzing their processes and operations to identify improvement opportunities and to conduct special studies related to operational excellence, assessment, performance measurement, and other topics.
- * 3.a. Capability Assessment (Staffing to meet Demand, Expertise, Facilities, Technology)
- * 3.b. Delivered Quality (Timeliness, Professionalism, Knowledge, Quality of Products)

UAPS vs. OEAS Comparison

	Goals/ Objectives	Capability Measures (sub- measures)	Delivered Quality Measures (sub- measures)	Total Ratings
UAPS	5	3 (9)	2 (6)	75
OEAS	3	4(20)	4(20)	120

- OEAS modified its approach to consider all objectives simultaneously
 - Four capability objectives (enabling objectives—*inferred*)
 - Four quality objectives (performance objectives—*realized*)

OEAS 2003-2004 Modified Display of Plan

- **Objective 1**
1. OEAS will have sufficient staffing (number) to meet demand. Staffing is considered sufficient if the office has a enough staff members to support the man-hours required to complete the work . Staffing will be examined from five customer need areas (consultations, special studies, workshops and training, analysis, and committee participation) and three support function areas (assessment support, process analysis and special studies support, and survey and statistical studies support)
- 1.a. Internal (review team from inside OEAS) assessment: In March 2003, a projection of customer needs for the next year (number of requests and time commitment) will be made based on the number of past requests for consultations, special studies, workshops, analysis, and committee participation during the prior year. These projections will be made by each of the three functional areas. This projection will be converted to man-hours and the staffing level in each of the customer need areas will be rated on a five point scale (5=more than sufficient staffing to meet needs, 4 = sufficient staffing, 3 = barely sufficient staffing, 2 = somewhat insufficient, and 1 = insufficient). Targets for each support function area will be derived using weighted sum of importance ratings (see OEAS website for more information) on each of the customer needs areas assuming level 4 in each area.
- 1.b. External (review team outside OEAS) Assessment: In March 2003, a review team external to OEAS (Member from Planning and Analysis, member of the UAC, member from IR, member from UAPS) will review the data provided in measure 1a from each of the three functional areas in terms of the staffing levels in each of the customer need areas using a five point scale (5=more than sufficient staffing to meet needs, 4 = sufficient staffing, 3 = barely sufficient staffing, 2 = somewhat insufficient, and 1 = insufficient). Targets for each support function area will be derived using weighted sum of importance ratings (see OEAS website for more information) on each of the customer needs areas assuming level 4 in each area.
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- **Objective 8**
OEAS will provide products and services to meet the needs of the customers. The quality of products and services will be examined from five dimensions (accuracy of data or information, usefulness of product, completeness of work, met user expectations, and availability of product or service) for each of the three support function areas (assessment support, process analysis and special studies support, and survey and statistical studies support).
- External (review team outside OEAS) assessment: During March through May 2003, a review team external to OEAS (Member from Planning and Analysis, member of the UAC, member from IR, member from UAPS) will complete an assessment using predefined rubrics using an agreement scale (5=strongly agree, 4 = agree, 3 = neutral, 2 = disagree, and 1 = strongly disagree). Specific comments will be solicited for neutral or lower assessments to obtain information on areas to improve. Targets for each support function area will be derived using weighted sum of importance ratings (see OEAS website for more information) on each of the product and service dimensions assuming level 4 in each area.
- Satisfaction survey: A web-based service satisfaction survey will be used to assess the quality of OEAS products and services. For long-term projects, a point of service survey will be sent directly following the provision of the service. For all other types of services (e.g., assessment support, survey support, etc) an annual survey will be sent in August 2003 to all users of the services. Products and services will be assessed using a five point scale (5=very satisfied, 4 = satisfied, 3 = neutral, 2 = dissatisfied, and 1 = very dissatisfied). Specific comments are also solicited to obtain information on areas to improve. Targets for each support function area will be derived using weighted sum of importance ratings (see OEAS website for more information) for each of the dimensions of product or service quality assuming level 4 in each area.

OEAS Review Comments

- From Fall 2002
 - “A comprehensive, well-thought out and documented plan.”
- From Spring 2003 (same plan, new format)
 - “This is not an assessment of effectiveness. Please remove this objective and the measures from the 2003-04 plan.”
 - “Targets need to be defined. Are there baseline data available from last year that could be used to determine targets for improvements?”
 - “The first 4 objectives are explanations that can be used during the results phase to identify needs for improving effectiveness and are embedded in the last 4 objectives. Once targets are identified, the last 4 objectives will allow OEAS to examine the products and services provided and also identify improvement.”
- Additional comment: “too many objectives”

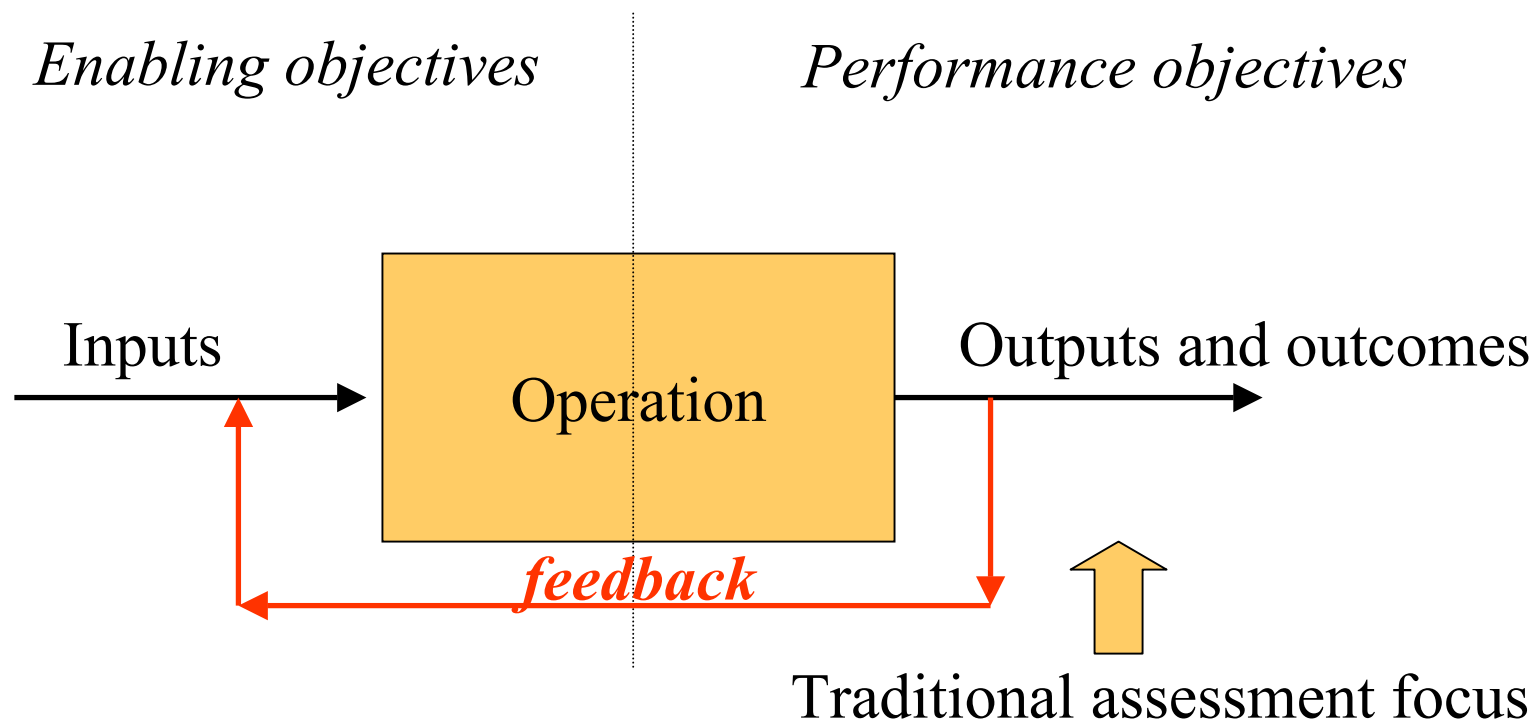
Observations

- Elements being measured are the same in both formats
 - First format is top-down: 3 goals areas, 2 types of objectives (inferred and delivered) each with four sub-measures and five attributes
 - Total = 120 measured attributes
 - Second format is bottom up: 8 objectives (4 enabling and 4 performance) each with 5 attributes and 3 measured goal areas
 - Total = 120 measured attributes
- Are these equivalent?
 - Want each function to have sufficient capability at high level of performance
 - Want to have sufficient capability and high level of performance in each area

What is the Problem?

- The documentation system only accommodates 10 objectives with some limitations on the number of measures
 - The 120 items have to be organized to fit the documentation system
- Perception of some reviewers: fewer is better
 - 3 to 5 objectives
 - 2 to 3 measures
- Reviewers may not understand the purpose of
 - Capability measurement
 - Enabling objectives
- Different reviewers

Systems View of Assessment



Conclusions

- Innovative assessment approaches may be difficult to communicate
 - Hard to understand and appreciate
 - Harder to review
 - Hard to document within existing documentation system
- Should not let these barriers decrease your enthusiasm for trying to conduct assessment in a better way
- The performance tree structure is working to help improve our operations
- Potential for use in academic programs
- We are not giving up!

Questions



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