# Analyzing, Interpreting, and Communicating Assessment Results

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## Benchmarks or Standards for Interpreting Assessment Results

Local Standards	Are students meeting our own standards?	
External Standards	Are students meeting standards set	
	by someone else?	
Internal Peer Benchmark	How do our students compare to others	
	within Ball State?	
External Peer Benchmark	How do our students compare with those of	
	other universities that are similar to Ball State?	
Best Practices Benchmark	How do our students compare to the best	
	of their peers?	
Value-Added Benchmark	Are our students improving?	
Historical Trends Benchmark	Is our program improving?	
Strengths and Weaknesses Perspective	What are our students' areas of strengths	
	and weaknesses?	
Capability Benchmark	Are our students doing as well as they can?	
Productivity Benchmark	Are we getting the most for our investment?	

## Five Basic Ways to Summarize Assessment Results

- Tallies (see Exhibit 16.1)
- Percentages (see Exhibit 16.2)
- Averaging results into an overall score
- Averaging results into sub-scores
- Qualitative summaries (grouped listings, themes, and examples)

### **Examine Differences**

- Between groups
- Over time
- With peers



## Ensuring the Quality of Your Data and the Utility of Your Analyses

#### **Quantitative Analyses**

- Reliability
- Validity
- Comparing participants/sample/population



## Ensuring the Quality of Your Data and the Utility of Your Analyses

#### Sampling Error

Sample	Sampling Error
196	7%
264	6%
384	5%
600	4%
1,067	3%
2,401	2%
9,604	1%



## Ensuring the Quality of Your Data and the Utility of Your Analyses

#### **Qualitative Analyses**

- Triangulation
- Peer debriefing
- Member check
- Bracketing



## Documentation and Storage

- Copies of student work
- Copies of raw data
- Notes on coding and analysis
- Please, please keep these materials in a secure location that provides backup, such as SharePoint or rGrade.



## Brief Guidelines About Sharing Assessment Results

- Use good teaching practices to share assessment results.
- The briefer the assessment report is, the more likely it will be used.
- Three kinds of information are most important to share:
  - How you and your colleagues define a successful student
  - Whether you are satisfied with your evidence of student success
  - What you are doing about unsatisfactory results
- Tables, charts, and other visuals may be more effective than traditional written reports.



## Honest, Balanced, Fair, and Useful Reporting of Assessment Results

- Share only aggregated results.
- Present results completely, fairly, and objectively.
- Provide appropriate attribution.
- Document the author, office, and date of assessment reports.
- Offer to make additional information available.



## What will audiences for assessment results care most about?

- Matters they can do something about
- Interesting and unanticipated findings
- Meaningful differences



## Venues for Sharing Assessment Results

- Web sites
- Emails
- Newsletters
- Alumni magazines
- Departmental memos
- Press releases
- Brochures
- Presentations
- Posters or banners



## What if people feel threatened by assessment results?

- Consult with those who may feel threatened.
- Balance negatives with positives.
- Be gentle and sensitive.
- Provide corroborating information.
- Document the quality of your assessment methods.
- Acknowledge possible limitations in your assessment methods.
- Help identify possible solutions.



## Ways to Make Your Results Have the Most Impact

- Make sure everything you include tells an important, interesting part of your story (see examples of two reports on pp. 280-281).
- Use an engaging, meaningful title and headings.
- Open with something intriguing.
- Cascade from major points to details.
- Provide a context for results.
- Offer informed commentary.
- Keep it short.



#### How To Keep Your Report Simple and Clear

- Avoid jargon.
- Use numbers sparingly.
  - A greater percentage of our students are first-generation college students than is the case nationally. Exactly 45% of fathers and 48% of mothers have never attended college, compared to 37% of fathers and 40% of mothers nationally. Over 36% of fathers of *our freshmen* are college graduates, while nearly 27% of mothers have college degrees.
  - The parents of our students are not quite as well educated as those of students nationally; they are less likely to have attended college or earned a college degree.
- Round figures to the nearest whole number.
- · Have someone review your draft.



#### Tips for Creating Effective Tables and Charts

- Give each table and chart a meaningful, self-explanatory title.
- Label every part of the table or chart clearly.
- Make each table and chart self-explanatory.
- If there are many possible results, group them.
- Make it easy for readers to see differences and trends.
- Avoid putting too much information in one table or chart.



#### Tips for Creating Effective Tables and Charts

- Present your results in an order that makes sense to readers and helps convey your point.
- Draw attention to the point you want your table or chart to make.
- Don't assume an Excel-generated chart is fine as is.
- Date each table or chart and note its source.



#### Slides and Posters

- Keep pages simple, uncluttered, and readable.
- Keep text to just a few key words.
- Use large font size.



#### Tips To Engage Audiences

- Plan to talk for only half the allotted time, saving the rest for discussion.
- Remain in charge.
- Launch a structured conversation.
- Record discussion points on a flip chart or ppt slide.
- Transcribe the discussion and send it to the audience members.



## Using Assessment Results Effectively and Appropriately

- Focus on important learning goals.
- Assess processes as well as outcomes.
- Involve those with a stake in the results in designing, carrying out, and discussing assessments.
- Communicate findings widely and openly.
- Discourage others from making inappropriate interpretations.



## Using Assessment Results Effectively and Appropriately

- Don't hold people accountable for things they cannot control.
- Don't let assessment results alone dictate decisions.
- Use multiple sources of information when making decisions.
- Keep people informed on how assessment results have affected decisions.



## What if the results are good?

- Celebrate
- Reward
- Share
- Keep going



#### What if the results are bad?

- Do you have the right learning goals?
- Do you have too many learning goals?
- Take a hard look at your courses:
  - Content and requirements
  - Sequencing and prerequisites
  - Admissions criteria
  - Placement criteria
  - Advising
  - Tutoring
  - Teaching methods
  - Co-curricular activities



#### What if the results are bad?

- Do you need to improve your assessment methods?
- Sometimes it really is the student's fault.
- Keep going.



How can we make better meaning of our assessment results?

Frame Student Learning Within Astin's (1993)
Inputs-Environments-Outcomes Assessment Model

- Predicated on the assumption that the principal means by which assessment can be used to improve educational practice is by enlightening the educator about the comparable effectiveness of different educational policies and practices
- Highlights the role of student backgrounds (inputs, e.g., demographics, high school grades, test scores, values, attitudes, behaviors) and student experiences (environments, e.g., courses taken, teaching methods, employment, interactions with other students, interactions with faculty members, use of programs and services, participation in various activities) on student learning (outcomes)



#### How can we make better meaning of our assessment results?

#### Frame Assessment as a Research Project

- Develop hypotheses, research questions.
- Consult literature on college student learning (e.g., Halpern & Hakel, 2002; Kuh, 2008; Kuh, Kinzie, Schuh, & Whitt, 2005; Kuh, Kinzie, Schuh, Whitt, & Associates, 2005; Mentowski & Associates, 2000; National Research Council, 2001; Pascarella & Terenzini, 2005).
- Consult literature on college student learning and assessment in the disciplines (e.g., American Psychological Association, Mathematical Association of America/Sons, National Council of Teachers of English, Project Kaleidoscope, Woodrow Wilson National Fellowship Foundation).
- Collect and analyze data.
- Determine and share results (see list of journals that publish the scholarship of teaching and learning).

#### Moving From Assessment Results to Action

- Determine what is most important in the results. In addition to discussion among themselves, faculty members can consult program accreditation bodies, alumni, employers, faculty members at other institutions, librarians, writing specialists, and student affairs staff members.
- Focus on the areas that show the greatest weaknesses.
- Determine what is feasible now and what might be addressed in the future. Consider what changes can be made within the department and what changes involve others. Investigate resources and available assistance.
- Keep good notes, both for your own follow-up and for reports that you might have to submit.

## Common Follow-Up Actions Resulting From Assessment

- Changes in curriculum design
- Changes in pedagogy
- Changes in academic support services, including advising
- More effective student orientation within the department
- Increased connections between in-class and out-of-class activities such as employment, internships, student research opportunities, study abroad, and living-learning communities

## Common Follow-Up Actions Resulting From Assessment

 It's a natural reaction to suggest that a new course be developed to address some identified weakness in student learning; but given the interest in limiting credit hour requirements and decreasing time to graduation, this may not be a viable option. A more difficult, but probably better, solution is to make changes in existing courses.



### Analyzing Audiences for Assessment

(Walvoord, 2010)

Who?	Needs To Know What?	For What?
Departments, Institution	How well are our strategies for student learning working? What can we do to improve?	Make improvements
Institutional Leaders	What assessment strategies do we have in place? What do we need for successful assessment in the future?	Recommended changes for improvement of assessment Report to regional accreditor or other external audience
Accreditor	Does the institution meet our standards for an assessment system? What advice could we offer to help the institution improve its system?	Accreditation review
Prospective Students	How good is the institution in helping me reach my learning, professional, and personal education goals?	Enrollment
Donors	How well is this institution doing? Is it able to exercise appropriate accountability for my money?	Giving
Trustees, Legislature	What assessment strategies are in place? What do we need to do to strengthen assessment? How well are the institution's students doing? Does the institution meet accreditation standards?	Funding, oversight, and interpreting the institution to various publics, including businesses, voters, employers, and others



## Discussion

