

ALTERNATIVE MEASURES OF STUDENT SUCCESS

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Outputs and Outcomes



Outputs

- Direct products of a program's activities usually measured in terms of volume of work accomplished (Hatry, vanHouten, Plantz, & Greenway, 1996)

Outcomes

- Refers to the specific knowledge, skills, or developmental attributes that students actually develop through their college experience; assessment results (Erwin, 1991)

Carey (2009)

- “Sample-based measures like the CLA are only the beginning; what we really need to do is start attaching a lot more useful information to individual college credentials while also making the credentialing process itself more open and flexible, less about having *been taught* by some kind of formal institution and more about having actually learned something real” (p. 3)

James Madison University

- Established assessment center in 1986
- Collect and use assessment information in academic and student affairs programs
- Initiated “assessment days” testing entering freshmen, then *retesting* as late sophomores in general education
- Competency: Use Modified Angoff and Bookmark standard setting procedures
- Administer computer-based tests in Information Literacy, Quantitative Literacy, Scientific Literacy, and soon Oral Communication

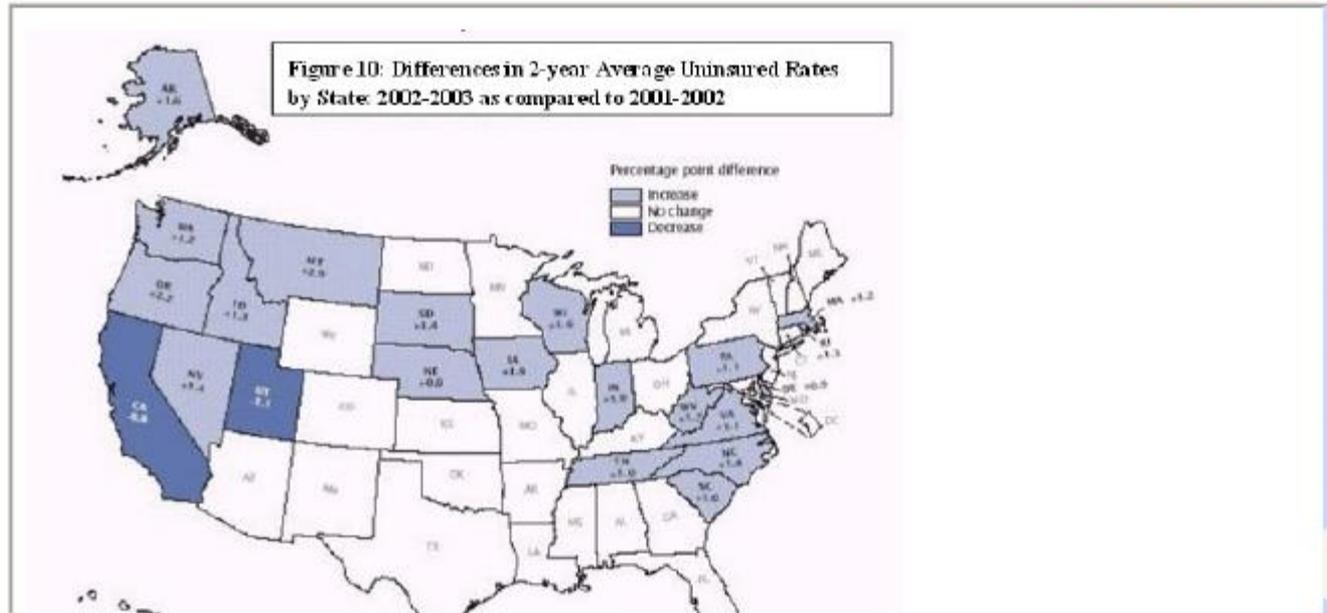
<http://www.madisonassessment.com/>

Information Literacy Test Item Example

9. You obtained the image, below, from the U.S. Census bureau website. If you wanted to cite the image in a report for class, what are you ethically obligated to do?

- A Contact the U.S. Census Bureau and ask for permission
- B Notify the U.S. Census Bureau that you are using the image
- C Use the image as is, without a citation in your report
- D Use the image as is, with a citation in your report

* MAY REQUIRE SCROLLING



MARK THIS QUESTION FOR REVIEW

Answer & Continue

Quantitative Reasoning Item Example

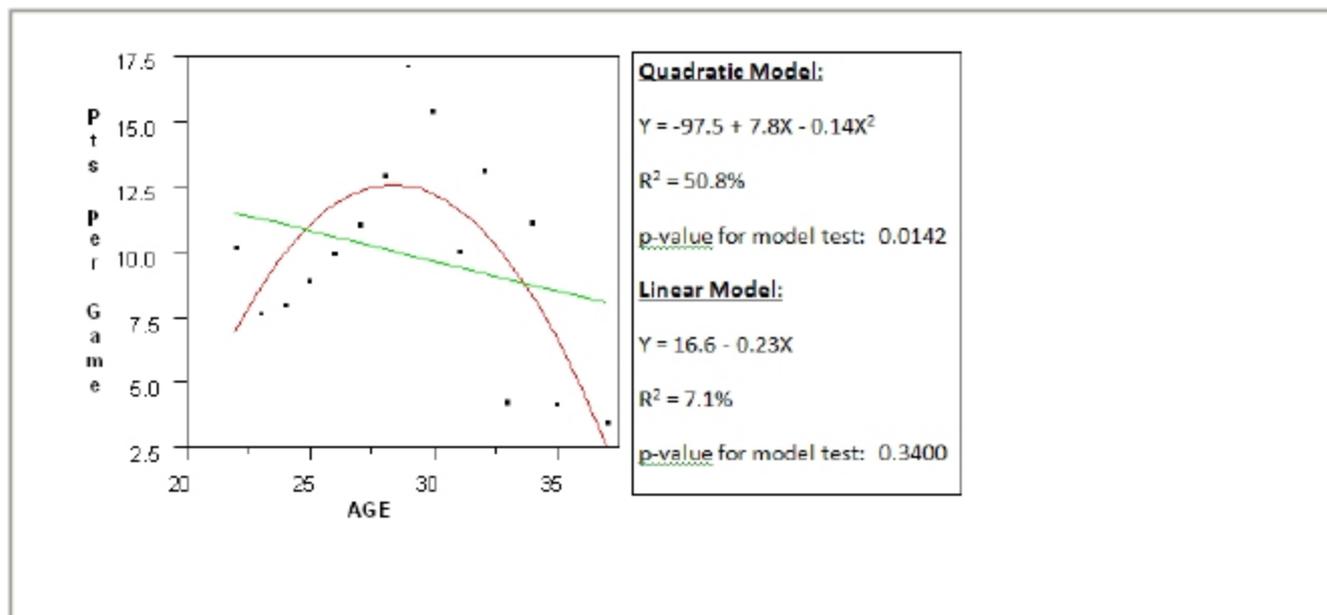
1. You will find below the results of a regression analysis of NBA point guards to determine if age has any relationship to a player's productivity, as measured by the average points scored per game by that player.

The researcher conducting this study used these data and analyses to conclude that NBA players "peak out" between 25 and 30 years of age and therefore should be eliminated from the roster after age 35.

Which model is most consistent with the researcher's conclusions?

- A Linear Model
- B Quadratic Model

* MAY REQUIRE SCROLLING



MARK THIS QUESTION FOR REVIEW

Answer & Continue

Scientific Reasoning Item Example

8. Suppose a researcher wants to test the hypothesis that exposure to cadmium in childhood causes neurological damage that reduces IQ. The researcher randomly selects 500 4th graders, monitors their cadmium exposure for one year, and then tests each student's IQ. The researcher finds that as cadmium exposure increases, IQ declines. Can the researcher conclude from the observed association between cadmium exposure and intelligence that cadmium causes reduced IQ?

- A No. The researcher did not include enough persons in the study.
- B No. There may be a third variable associated with exposure to cadmium that actually causes the lowered IQ.
- C Yes. The researcher followed the scientific method.
- D Yes. An association between the amount of cadmium exposure and lowered IQ is exactly what we would predict from the hypothesis.

[MARK THIS QUESTION FOR REVIEW](#)

[Answer & Continue](#)



Acknowledge Current Activities Related to Learning Outcomes

Acknowledging Outcomes

- Association of American Colleges & Universities (AAC&U)
- Community College Learning Assessment (CCLA)
- P-20 Systems
 - Human Services Policy Center

Acknowledging Outcomes

- Voluntary Framework of Accountability (VFA)
 - American Association of Community Colleges (AACCC)
 - Association of Community College Trustees (ACCT)
 - College Board

- Voluntary System of Accountability (VSA)
 - Association of Public and Land-grant Universities (APLU)
 - Association of State College and Universities (AASCU)

Acknowledging Outcomes

- The League for Innovation in the Community College
- Community College Research Center (CCRC)
- National Governors Association Center for Best Practices (Linn)

Lumina Foundation

- “Tuning USA: Lumina Foundation launches faculty-led process that will involve students and employers in linking college degrees to workplace relevance and students’ mastery of agreed-upon learning objectives” (Boyce, 2009)
- Released Degree Qualifications Profile



Link To Prior Work

Three Broad Areas of Focus Regarding Assessment of Learning

- Professional Certifications in Programs
- General Education
- Developmental Education

American Association of Community Colleges (2011)

Categories for community colleges to measure:

1. Analytical reasoning and critical thinking
2. Communication (ability to speak, read, write, and listen)
3. Innovative and creative thinking
4. Quantitative literacy
5. Information literacy
6. Teamwork and collaborative skills
7. Global understanding and citizenship
8. Content/career specific skills and knowledge

National Postsecondary Education Cooperative (NPEC)

□ Specification of these constructs

(Jones, E. A., Dougherty, B. C., Fantaske, P., & Hoffman, S. (1997). *Identifying college graduates' essential skills in reading & problem solving: Perspectives of faculty, employers, & policymakers*)

(Jones, E. A., Hoffman, S., Moore, L. M., Ratcliff, G., Tibbetts, S., & Click, B. A. (1995). *National assessment of college student learning: Identifying college graduates' essential skills in writing, speech and listening, and critical thinking*)

National Postsecondary Education Cooperative (NPEC)

- Instruments that purport to measure these constructs

NPEC Sourcebook on Assessment, Volume I: Definitions and Assessment Methods for Critical Thinking, Problem Solving, and Writing (Erwin, 2000)



Encourage Future Possibilities

Suggestions

- ❑ Two year colleges would greatly benefit from change over time/longitudinal (“value-added”) designs
- ❑ Keep your emphasis on “skill sets”
- ❑ Keep your diagnostic philosophy
- ❑ Agree on sub-areas of Developmental Education
- ❑ Use your computer testing facilities to collect assessment information from computer-based tests
- ❑ Encourage additional certification exams (e.g. Automotive Service Excellence -ASE)

Suggestions

- Encourage continuing use of learning outcome information
- Encourage reporting of outcome information
- Encourage continuing design of instruments to measure student learning and development
- Consider requesting U. S. Department of Education guidelines about certification programs (similar to testing resource guide).

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Thank you!