1. MEDIA clips.
2008
A quiz related to authentic applications of quantitative reasoning based on print or electronic media.

2. The Luxury of Teaching Science.
Bruning, David 1 david.bruning@uwp.edu
Mercury Apr/May 2008, Vol. 37 Issue 2, p12-12
2008
The author reflects on continuing to offer a course rich in quantitative reasoning and high standards while running low enrollments that risk criticism from the university on student-contact hours. He mentioned the restructuring of the general education (gen ed) at a Midwestern university that required spreading the courses to three disciplines instead of two. While astronomy is listed under Physics, advisors could not recommend it because ...

Keith, Timothy Z. tim.keith@mail.utexas.edu
Intelligence Nov 2008, Vol. 36 Issue 6, p502-525
2008
Abstract: Sex differences in the latent general and broad cognitive abilities underlying the Woodcock-Johnson Tests of Cognitive Abilities were investigated for children, youth, and adults ages 6 through 59. A developmental, multiple indicator-multiple cause, structural equation model was used to investigate sex differences in latent cognitive abilities as well as developmental changes in these differences across the 6 to 59 age span. ...

Arendasy, Martin martin.arendasy@univie.ac.at
2007
Abstract: This article deals with the investigation of the psychometric quality and constructs validity of algebra word problems generated by means of a schema-based version of the automatic min-max approach. Based on review of the research literature in algebra word problem solving and automatic item generation this new approach is introduced as a theory-based top-down method of automatic item generation featuring a quality control ...

5. The Influence of Reasoning with Emergent Quantities on Students' Generalizations.
2007
This paper reports the mathematical generalizations of two groups of algebra students, one which focused primarily on quantitative relationships, and one which focused primarily on number patterns disconnected from quantities. Results indicate...
that instruction encouraging a focus on number patterns supported generalizations about patterns, procedures, and rules, while instruction encouraging a focus on quantities supported generalizations ...

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Author(s)</th>
<th>Year</th>
<th>Journal/Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>MEDIA clips</td>
<td>Cibes, Margaret</td>
<td>2007</td>
<td>Mathematics Teacher Mar 2007, Vol. 100 Issue 7, p490-491</td>
</tr>
</tbody>
</table>
Abstract: Client interactions with web-accessible network services are organized into
sessions involving requests that read and write shared application data. When
executed concurrently, web sessions may invalidate each other's data. Allowing the
session with invalid data to progress might lead to financial penalties for the service
provider, while blocking the session's progress will result in user dissatisfaction. ...

12
Intuitive interference in quantitative reasoning.
Stavy, Ruth 1 ruth@post.tau.ac.il
2006
Abstract: It is well known that surface features of a task can queue multiple
reasoning strategies. Interference or conflict among the strategies is signaled by
increasing reaction times and error rates. To determine the neural basis of this
interference, we studied 14 volunteers using event-related fMRI, as they compared
the perimeters of geometrical shapes in congruent (where the shapes' perimeter
changed in the same direction) ...

13
WHAT ARE YOU THINKING? POSTSECONDARY STUDENT THINK-ALOUDS OF
SCIENTIFIC AND QUANTITATIVE REASONING ITEMS.
Thelk, Amy D.
2006
The article focuses on the ways to evaluate student learning. Student assessment is
the chief element of program evaluation. Multiple-choice tests have been noted as
the common evaluative measures used by the teachers to evaluate the scientific and
quantitative reasoning of the students. The authors stressed the application of "think-
alouds" scheme to understand individual interpretation of items. It was noted that the
concept can aid in ...

14
No Squirrel Startling.
2006
The article provides a sample mathematical application of quantitative reasoning
based on a report entitled "No Squirrel Startling," published in the December 31,
2004 issue of the newspaper "The Toronto Star."

15
MEDIA CLIPS solutions.
Mathematics Teacher Apr 2006, Vol. 99 Issue 8, p590-590
2006
The article provides solutions to a sample mathematical application of quantitative
reasoning based on a report entitled "No Squirrel Startling," published in the
December 31, 2004 issue of the newspaper "The Toronto Star."

16
Back to the future: education for systems-level biologists.
Wingreen, Ned 1
Nature Reviews Molecular Cell Biology Nov 2006, Vol. 7 Issue 11, p829-832
2006
We describe a graduate course in quantitative biology that is based on original path-
breaking papers in diverse areas of biology; each of these papers depends on
quantitative reasoning and theory as well as experiment. Close reading and
discussion of these papers allows students with backgrounds in physics,
computational sciences or biology to learn essential ideas and to communicate in the
languages of disciplines other than their own. ...

17
Testing Service Delays Rollout Of Revamped Graduate Exam.
TAMAR LEWIN
2006
The Educational Testing Service, the maker of the Graduate Record Exam, is
delaying its rollout of a revamped test until the fall of 2007. The revised exam was
supposed to go into effect in October. The overhaul is to be the biggest in the test's
history. Although the exam will still include sections on verbal reasoning, quantitative
reasoning and analytical writing, every section is being revised, and the test
lengthened to about four ...

18
Evidence based diagnosis: does the language reflect the theory?
Although interest in evidence based medicine has increased in recent years, and it is taught in most medical schools, evidence based strategies have been adopted inconsistently into routine care. One aspect of evidence based medicine involves understanding the limitations of inherently imperfect diagnostic tests. Many trainees appreciate the concepts of sensitivity and specificity and learn how to combine the “art” of the history and ...

Do the Write Thing
Burk, Adrienne L. 1
New Directions for Adult & Continuing Education Spring 2006 Issue 109, p79-89 2006
The article discusses the writing, quantitative reasoning, and breadth (WQB) program at Simon Fraser University and its applications to transformative learning. 

The WQB course teaches the student to utilize writing to demonstrate correlation of ideas. To achieve this, students are given opportunities to use writing as a means of learning through incremental assignments and activities. Also, writing is used as a method of instruction. ...

Media Clips
Meyer III, Julien H. meyerj@brynmawrschool.org
The article "Media Clips" presents applications of quantitative reasoning that are based on print or electronic media clips. It uses a diagram of artificial tree, taken from the catalog Lowe's Christmas 2003 by professor Julien H. Meyer III, and Bill Amend's cartoon "FoxTrot" by Charles W. Mitchell Jr. Answers and solutions to problems asked about the clips are presented. It encourages submissions that include questions, as well as ...

The article focuses on the academic achievement of students in the Railside High School's mathematics program, in California. Students at Railside performed better in mathematics and had less of an educational achievement gap than students at other urban high schools. The mathematics program at Railside provided students with quantitative reasoning capabilities. Students worked together on complex conceptual problems. ...


The Wechsler Adult Intelligence Scale, Third Edition (WAIS-III) is the most widely used individually administered measure of adult intelligence. Using confirmatory factor analysis, the present study investigates the structural fidelity of the WAIS-III using data from standardization and an independent sample. Findings support five cognitive factors (i.e., Verbal Comprehension, Processing Speed, Perceptual Organization, Working Memory, and ...

23: Sex differences in Cognitive Abilities Test scores: A UK national picture. Strand, Steve 1 steve.strand@warwick.ac.uk British Journal of Educational Psychology Sep2006, Vol. 76 Issue 3, p463-480

Background and aims. There is uncertainty about the extent or even existence of sex differences in the mean and variability of reasoning test scores (Jensen, 1998; Lynn, 1994, 1998; Mackintosh, 1996). This paper analyses the Cognitive Abilities Test (CAT) scores of a large and representative sample of UK pupils to determine the extent of any sex differences. Sample. A nationally representative UK sample of over 320,000 school pupils aged ...


The article focuses on makeover of the Graduate Record Examination (GRE). After four years of research, officials of the Educational Testing Service say that they have nearly finished the most significant overhaul of the GRE in its 55-year history. Each of the computer-based test's sections, verbal reasoning, analytical writing and quantitative reasoning, will have different types of questions and a new format. The changes are intended ...

25: Putting Liberal Education on the Radar Screen. Schneider, Carol Geary

This article presents information related to liberal education in the U.S. Many applicants are preoccupied with such pressing questions as whether they will do well on the SAT or make the right college choice. Their parents might be worrying about tuition costs, and policy makers about continuing to increase access to higher education, improving graduation rates, decreasing college costs, and putting into effect new forms of institutional ...