Update on Dental Admission Testing

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The Advanced Dental Admission Test (ADAT)
Examination Purpose

• The Advanced Dental Admission Test (ADAT) is a computer based exam designed to provide advanced dental education programs with insight into applicants’ potential for success in their program.
  – The ADAT will be professionally developed, valid, and reliable, containing questions written by dental subject matter experts.
  – The ADAT will provide quantitative data regarding applicants using a nationally standardized and objective test.
Why Develop an Advanced Dental Admission Test?

- As of January 1, 2012, the Joint Commission on National Dental Examinations no longer reports candidate scores for those who pass NBDE Part I and Part II.
- A number of dental schools have moved away from GPA and are reporting grades as pass/fail.
- Advanced dental education programs are seeking other ways to compare program applicants.
- Both program directors and students have expressed concern regarding how qualifications will be assessed when making admissions decisions.
Survey Results

• To assess demand for the ADAT, CDEL distributed a survey to 739 directors of advanced dental education programs. (October, 2014)
• Survey response rate: 63% (464 out of 739 programs)
• 294 program directors (63% of respondents) indicated they are likely or extremely likely to require program applicants to take the ADAT.
• 150 program directors (32% of respondents) voiced interest in participating in the ADAT pilot administration in 2016, requiring all of their applicants to take the exam.
Oversight

• The ADA Board of Trustees approved ADAT development in December 2014.
• The ADA’s Council on Dental Education and Licensure (CDEL) will oversee ADAT policies.
• CDEL’s Committee on Dental Admission Testing will monitor the program and make recommendations to CDEL concerning policies.
• The ADA’s Department of Testing Services (DTS) will implement the ADAT program under the direction of CDEL and its Committee on Dental Admission Testing.
ADAT Content is structured as follows:

- **ADAT**
  - **Critical Thinking**
  - **Biomedical Sciences**
  - **Clinical Sciences**
  - **Data and Research Interpretation**
  - **Professional Ethics & Patient Management**
### Test Specifications and Administration Overview

#### Number of Items per Subject

<table>
<thead>
<tr>
<th>Area</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking</td>
<td></td>
</tr>
<tr>
<td>Biomedical Sciences</td>
<td>80</td>
</tr>
<tr>
<td>Clinical Sciences</td>
<td>60</td>
</tr>
<tr>
<td>Data and Research Interpretation</td>
<td>30</td>
</tr>
<tr>
<td>Professional Ethics and Patient Management</td>
<td>30</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>200</strong></td>
</tr>
</tbody>
</table>

- Initial target administration dates (TENTATIVE):
  - May 2016 and August 2016 (pilot year)
  - April 2017 and July 2017
- The ADAT would be available for two, one-week periods, (e.g., first and third week of each month indicated).
• The ADAT is designed for admission purposes, to help advanced dental education programs identify the most qualified, strongest candidates for selection into advanced dental education programs.

• The NBDE Part I and Part II is designed for use by state dental boards, to help boards understand whether a candidate for licensure has the required cognitive skills to safely practice dentistry (minimum competency).

• For further information, please visit www.ada.org/adat or email datexam@ada.org.
Update on the Dental Admission Test (DAT)
## Changes to Test Content

DAT Test Specifications are found in the DAT Guide and outline specific test content details. Any future changes will be outlined within the Test Specifications and posted in December of the calendar year that changes become effective.

<table>
<thead>
<tr>
<th>SURVEY OF THE NATURAL SCIENCES (100 items)</th>
<th>Biology (40)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cell and Molecular Biology</strong></td>
<td>Origin of life, cell metabolism (including photosynthesis/ enzymology), cellular processes, thermodynamics, organelle structure and function, mitosis/ meiosis, cell structure, and experimental cell biology</td>
</tr>
<tr>
<td><strong>Diversity of Life</strong></td>
<td>Biological Organization and Relationship of Major Taxa (Six-Kingdom, Three-Domain System) – plantae, animalia, protista, fungi, eubacteria (bacteria), archaea, etc.</td>
</tr>
<tr>
<td><strong>Structure and Function of Systems</strong></td>
<td>Integumentary, skeletal, muscular, circulatory, immunological, digestive, respiratory, urinary, nervous/ senses, endocrine, reproductive, etc.</td>
</tr>
<tr>
<td><strong>Developmental Biology</strong></td>
<td>Fertilization, descriptive embryology, developmental mechanisms, and experimental embryology</td>
</tr>
<tr>
<td><strong>Genetics</strong></td>
<td>Molecular genetics, human genetics, classical genetics, chromosomal genetics, and genetic technology</td>
</tr>
<tr>
<td><strong>Evolution, Ecology, and Behavior</strong></td>
<td>Natural selection, population genetics/ speciation, cladistics, population and community ecology, ecosystems, and animal behavior (including social behavior).</td>
</tr>
</tbody>
</table>
Changes to Test Content: Critical Thinking

- There are many different ways to define the concept of critical thinking. Those definitions often involve the application of cognitive skills such as problem solving, interpretation, analysis, evaluation, and inference.
- Critical thinking is not a specific content area to be mastered, but is perhaps best thought of as a rational, reasoned approach to the processing of information in order to reach conclusions and derive solutions.
- Critical thinking involves information processing, and the type of information that is being processed can vary greatly (e.g., reading comprehension content, quantitative content, science content). In essence, particular content areas provide a platform for the application of critical thinking skills that vary in complexity.
- Critical thinking skills can be assessed either through a separate content section, or through embedding higher cognitive processing requirements within an existing content structure. The DAT Program has taken the latter approach, and chosen to incorporate critical thinking into the DAT’s Quantitative Reasoning Test section.
Changes to Quantitative Reasoning Test (QRT) Specifications

In the 2016 calendar year, changes will be introduced to QRT to incorporate additional critical thinking into this section. Critical thinking will be embedded in the following areas:

- Data Analysis, Interpretation, and Sufficiency (NEW)
- Quantitative Comparison (NEW)
- Probability and Statistics (more items)

Note: while items have been discarded in certain areas (e.g., Geometry and Trigonometry) the removal of these items does not imply that items in the QRT section no longer require knowledge in those areas. Items written in areas such as “quantitative comparison” and “data analysis, interpretation, and sufficiency” can still utilize underlying content in geometry and trigonometry.

DAT Administration Volume (2010-2014)

DAT Administrations: Total and First-Time

- Total:
  - 2010: 13,406
  - 2011: 13,177
  - 2012: 13,156
  - 2013: 12,947
  - 2014: 12,923

- First Time:
  - 2010: 8,585
  - 2011: 8,732
  - 2012: 8,883
  - 2013: 8,769
  - 2014: 8,963

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