The Advanced Dental Admission Test (ADAT)
Program Update for 2019

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ADAT Overview

• The ADAT has now begun its fourth year (2016-2019)

• The purpose of the ADAT is to provide advanced dental education programs with insight into applicants’ potential for success in their program

• The ADAT is overseen by the ADA’s Council on Dental Education and Licensure (CDEL)
Administration and Fees

• 2019 ADAT administration window
  – March 1 - August 31 (6 months)

• 2019 Fees
  – Examination fee: $380
  – Additional ADAT score reports: $40
  – Non-accredited processing fee: $210

• Retesting policy
  • Examinees may test two times per calendar year
  • Attempts must be separated by a minimum of 45 days
  • After two attempts, examinees must provide proof they are actively applying to advanced dental education programs
Score Reporting

• ADAT results are distributed through ADEA PASS and through the Department of Testing Services (DTS) Hub
  – The DTS Hub is an online score reporting portal developed by the ADA

• Official ADAT results are made available 3 to 4 weeks after an examinee tests
  – e.g., If an examinee tested on May 1, his or her official results were released by June 1
  – Candidates and programs no longer need to wait until September to receive official results
# ADAT Content Specifications

## Biomedical Sciences (80 items)
- Anatomic Sciences
- Biochemistry-Physiology
- Microbiology-Pathology
- Dental Anatomy-Occlusion

## Clinical Sciences (80 items)
- Endodontics
- Operative Dentistry
- Oral and Maxillofacial Surgery / Pain Control
- Oral Diagnosis
- Orthodontics / Pediatric Dentistry
- Periodontics
- Pharmacology
- Prosthodontics
- Principles of Ethics
- Patient Management
- Case-based items

## Data, Research Interpretation, and Evidence Based Dentistry (40 items)
- Study Design
- Data Analysis
- Result Interpretation
- Inference and Implication
ADAT Scoring

- ADAT examinees receive four scores

- The **ADAT Overall** score measures critical thinking in dentistry, and is a weighted average of the three discipline-based scores

- Scores can range from 200 to 800 (reported in 10 point increments)

- Few examinees score below 300 or above 700
ADAT Utilization

• Programs make their own decisions about how to use ADAT results

• Some programs factor ADAT results into admission decisions, whenever they are available
  – “If ADAT result is there I will look at it”

• Some programs use ADAT results only in certain prescribed situations
  – “I will use this information if it helps to qualify candidates”
  – “Would use testing where applicants do not have class ranks or grade point averages.”

• Some programs use ADAT results to inform other admissions procedures

• Some programs are collecting ADAT results, but are not yet using them to inform individual admission decisions
  – “Are there any outcomes studies on this yet?”
ADAT Utilization (2019)

- The ADA distributes a survey to advanced education programs each year to understand how they anticipate using ADAT results
  - About 60% of programs respond to the survey
  - Information on participation by specific programs appears on the ADAT website (ada.org/adat)

- In 2019, most programs (approximately two thirds) indicated they accepted or required the ADAT

- Among specialty areas, the top four areas requiring ADAT results are as follows:
  - Endodontics
  - Orthodontics
  - Prosthodontics
  - Pediatric Dentistry

- DTS thanks those programs who have championed the ADAT and require its usage. This really helps the success of this examination program!
Feedback from Programs (2019)

• DTS has received valuable positive feedback on the ADAT from several advanced dental education programs:

  “I think this a good measure of [applicants'] knowledge, as more Dental programs are moving to a P/F grading system. However, I do need more information.”

  “It would help the admission process”

  “I would like to see more programs utilize”

  “Would use testing where applicants do not have class ranks or grade point averages.”

  “I would love to have the ADAT mandatory if all programs require the test.”

  “Wish all programs were using it”

  “It's unfortunate that many dental schools have advised their students to not take the ADAT. My preference would be to require the ADAT for my residency application, but there simply are not enough candidates who take the exam to do so. Especially for dental schools who do not rank their students or provide a GPA, our program uses the ADAT score as an important objective measure [of] the student's academic standing.”

  “We hesitate to make taking the ADAT a requirement because we feel we may lose some good qualified candidates who decide not to take the ADAT. We do like the idea of having standardized tests scores to review to help us get a better idea of each candidate's level of knowledge.”
ADAT Communication

- Additional information about the ADAT is available on the ADAT website [www.ada.org/adat](http://www.ada.org/adat)
  - Examination Guide
  - User’s Guide
  - Practice Test
  - FAQs
  - Past presentations
  - Program tracker
  - Test specifications
  - Volunteer Test Constructor application
Score Interpretation

- The **ADAT User’s Guide** provides information that helps users interpret ADAT scores.

- The User’s Guide contains:
  - Information about ADAT content
  - The percentiles associated with different ADAT scores
  - Descriptive statistics for ADAT scores overall and by specialty

- **What is a “good” ADAT score?**
ADAT Overall

- An **ADAT Overall** score of 600 corresponds to the 92\textsuperscript{nd} percentile
- An **ADAT Overall** score of 650 corresponds to the 98\textsuperscript{th} percentile
Biomedical Science

- A *Biomedical Science* score of 600 corresponds to the 86th percentile
- A *Biomedical Science* score of 650 corresponds to the 94th percentile
- A *Biomedical Science* score of 700 corresponds to the 98th percentile
Clinical Science

• A *Clinical Science* score of 600 corresponds to the 89th percentile

• A *Clinical Science* score of 650 corresponds to the 96th percentile

• A *Clinical Science* score of 700 corresponds to the 99th percentile

![Histogram of Clinical Science Scores: 2016-2018 (1,330 Administrations)](chart)

- Mean = 497
- SD = 91
**DRIEBD**

- A *DRIEBD* score of 600 corresponds to the 87th percentile
- A *DRIEBD* score of 650 corresponds to the 95th percentile
- A *DRIEBD* score of 700 corresponds to the 98th percentile
Reliability

- ADAT scores demonstrate high reliability
- Reliability coefficients above .90 are generally considered excellent; DTS targeted .70 or higher for the three discipline scores
- The **ADAT Overall** score is the most reliable because it is based on the examinee’s performance on the entire test
- The distributions appearing on prior slides show the ADAT is capable of discriminating among candidates across the dental skills continuum

<table>
<thead>
<tr>
<th>ADAT Scale</th>
<th>2017</th>
<th>2018</th>
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</thead>
<tbody>
<tr>
<td>ADAT Overall</td>
<td>.91</td>
<td>.91</td>
</tr>
<tr>
<td>Biomedical Science</td>
<td>.78</td>
<td>.78</td>
</tr>
<tr>
<td>Clinical Science</td>
<td>.74</td>
<td>.79</td>
</tr>
<tr>
<td>DRIEBD</td>
<td>.79</td>
<td>.80</td>
</tr>
</tbody>
</table>
Validity Evidence

- There is a positive relationship between ADAT performance and self-reported dental school GPA
  - i.e., Examinees with higher GPAs tend to perform better on the ADAT

Average ADAT score, by self-reported dental school GPA: 2016-2018

<table>
<thead>
<tr>
<th>Dental School GPA</th>
<th># of Examinees</th>
<th>ADAT Overall</th>
<th>BIO</th>
<th>CLI</th>
<th>DRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 to 2.5</td>
<td>25</td>
<td>416</td>
<td>454</td>
<td>389</td>
<td>391</td>
</tr>
<tr>
<td>2.6 to 3.0</td>
<td>98</td>
<td>452</td>
<td>456</td>
<td>449</td>
<td>445</td>
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<tr>
<td>3.1 to 3.5</td>
<td>426</td>
<td>487</td>
<td>491</td>
<td>484</td>
<td>484</td>
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<tr>
<td>3.6 to 4.0</td>
<td>554</td>
<td>523</td>
<td>533</td>
<td>516</td>
<td>516</td>
</tr>
<tr>
<td>Pass/Fail Grading</td>
<td>159</td>
<td>530</td>
<td>529</td>
<td>520</td>
<td>549</td>
</tr>
</tbody>
</table>
Validity Evidence

- The ADAT is administered under controlled, standardized testing conditions
- ADAT items are written by subject matter experts who are trained in item writing
- The disciplines covered on ADAT are based on findings from a survey on advanced dental education conducted by an ADA Task Force and ADEA
- The test specifications for the Clinical Sciences section of the ADAT are based on the practice analysis that supports the National Board Dental Examination (NBDE) Part II
- The test specifications for the Biomedical Science section of the ADAT are modeled after the NBDE Part I
- The ADA’s Council on Dental Education and Licensure (CDEL) reviews and approves the test specifications and Test Constructors provide additional input
Concluding Thoughts

• The ADA pursued ADAT development based on requests from advanced dental education programs for a valid and reliable quantitative indicator of candidate likelihood of success in advanced dental education programs.

• The ADAT has demonstrated strong psychometric performance and over 1,000 administrations have occurred to date.

• The water is fine, jump in!

• The ADA invites programs to consider making the ADAT a requirement.
Questions?
Thank You