

Updates on the Examinations of the American Dental Association

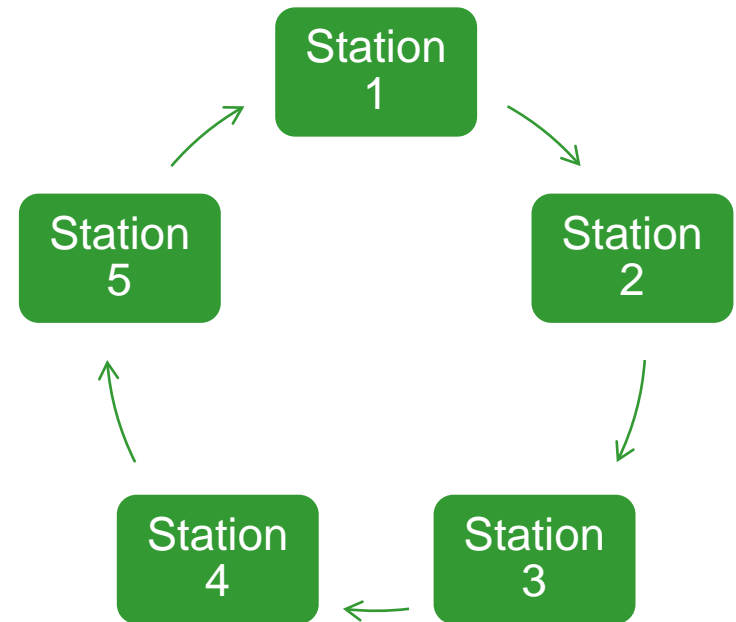
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ADEA Fall Meetings
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The Dental Licensure Objective Structured Clinical Examination (DLOSCE)

What is an Objective Structured Clinical Examination (OSCE)?

- Assesses clinical competence and skills
- Widely used in health sciences
- Candidates rotate through short, standardized stations
- Measures clinical skills such as communication, clinical examination, knowledge of procedures, prescriptions, etc.
- Success requires critical thinking



Why conduct an OSCE?

- Benefits include:
 - Assesses broad range of skills
 - Standardized (stations, competencies, tasks)
 - Clinical and theoretical knowledge
 - Strong validity evidence
 - Reliable
 - Fair

Who serves on the DLOSCE Steering Committee?

In 2016, the ADA Board of Trustees authorized DLOSCE development and formed an eight-member Steering Committee to oversee development. Current membership is as follows:

| | |
|---|--|
| ADA Board of Trustees members | Dr. Roy Thompson, Chair (TN) Dr. Craig Armstrong (TX) |
| General dentist members (formerly on CDEL) | Dr. Edward J. Hebert (LA) Dr. Prabu Raman (MO) |
| Educators with experience teaching comprehensive clinical dentistry | Dr. Michael Kanellis (IA) Dr. Frank Licari (UT) |
| State dental board members | Dr. David Carsten (WA) Dr. Mark R. Stetzel (IN) |

What is the Committee's charge?

- Identify governance structure for DLOSCE administration.
- Identify and establish examination content areas and test specifications.
- Establish general structure for the examination and permissible item formats.
- Identify and establish test construction team (TCT) structure, and issue a call for test constructors.
- Identify and contract key vendors (e.g., technology, testing vendors) to support examination administration.
- Identify state(s)/region(s) for the DLOSCE field test(s).
- Develop a DLOSCE candidate guide, and prepare DTS' systems (Aptify) for DLOSCE candidates and test users.

What will the DLOSCE cover?

- Focal topic areas:
 - Restorative Dentistry
 - Prosthodontics
 - Oral Pathology, Pain, and TMD
 - Periodontics
 - Oral Surgery
 - Endodontics
 - Orthodontics
 - Medical Emergencies
 - Prescriptions
- Areas covered across topic areas include Diagnosis, Treatment Planning, and Occlusion
- Each form of the DLOSCE must include at least one item involving each of the following patient types: 1) pediatric, 2) geriatric, 3) special needs, 4) medically complex

How will the DLOSCE and INBDE differ?

- The DLOSCE and Integrated National Board Dental Examination (INBDE) both assess clinical skills (e.g., diagnosis and treatment planning, oral health management). However, key differences also exist:
 - The DLOSCE is focused exclusively on the clinical tasks a dentist performs while providing direct, chair-side treatment to patients.
 - Micro-judgments, errors and knowledge of success criteria, narrow focus
 - The INBDE focuses on cognitive skills:
 - the biomedical underpinnings of clinical decisions, broader focus that includes the “why”
 - practice and profession considerations, evidence based dentistry, being good consumers of research, patient oral health care education

How will the DLOSCE and INBDE differ?

- Examples of how the INBDE and DLOSCE might differ:

| INBDE Example | Corresponding DLOSCE Example |
|--|--|
| Understand basic principles of pharmacokinetics and pharmacodynamics for major classes of drugs and over-the-counter products to guide safe and effective treatment. | Review patient information and write an appropriate prescription. |
| Understand local and central mechanisms of pain modulation. | Identify the final needle position (point of insertion, angulation, and depth) immediately prior to injection that will best accomplish complete local anesthesia for a given procedure. |
| Understand dental material properties, biocompatibility, and performance, and the interaction among these in working with oral structures in health and disease. | Identify one or more flaws present in a metal-ceramic restoration. |
| Understand the principles and logic of epidemiology and the analysis of statistical data in the evaluation of oral disease risk, etiology, and prognosis. | <i>No corresponding DLOSCE example. Epidemiology and statistics are not covered on the DLOSCE.</i> |

What information is available concerning the pilot?

- The precise dates of the DLOSCE pilot will be announced by the end of the year
- The first administrations for licensure purposes will occur subsequent to a successful pilot, shortly after the pilot concludes and results have been reviewed

DLOSCE Pilot Details (preliminary)

| | |
|----------------------|---|
| Time: | 5 ½ hours administration time |
| Method: | Computer administration at professional testing centers |
| Programs: | Available to all US CODA accredited dental programs (includes an in-depth focus on 3 or 4 programs) |
| Participants: | US dental students who are eligible to take NBDE Part II. |
| Incentive: | \$200 to \$400 (based on performance) |

What is the status of DLOSCE development?

- Since its first meeting in July 2017, the Steering Committee has made significant progress toward fulfilling its charge.
- DLOSCE Test Construction Teams have been formed, item templates are in place, and DTS is now ramping up item development and 3D models.
- The DLOSCE Steering Committee will continue to keep communities of interest updated on the status of the DLOSCE

For more information and updates, please visit
ada.org/DLOSCE.

The Dental Admission Test (DAT)

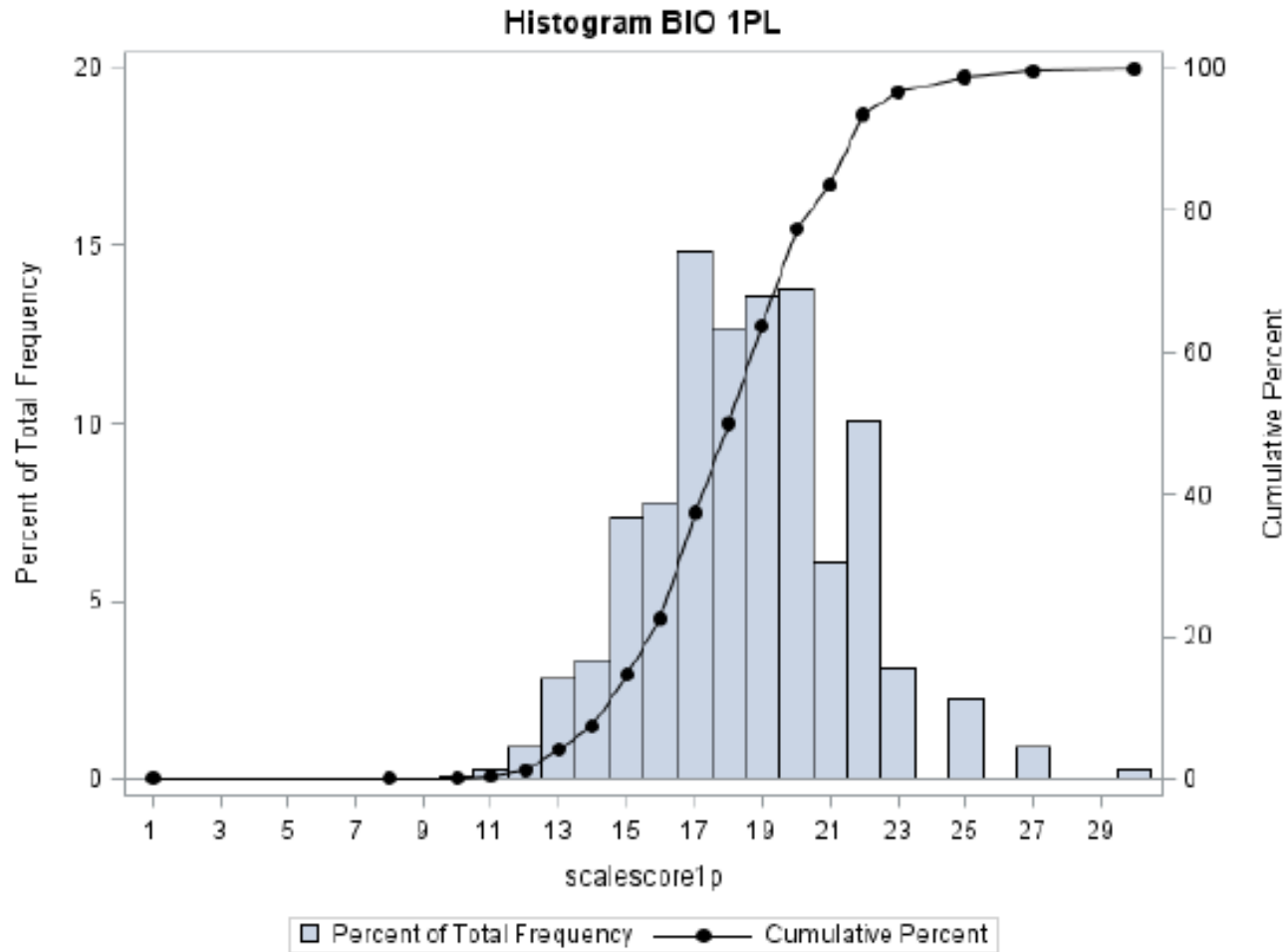
Potential Update to DAT Scoring

- The Council on Dental Education and Licensure (CDEL) is investigating a change to the DAT's scoring model.
- CDEL and its DAT Committee compared DAT performance under two different scoring models (1-PL and 3-PL)
- The 3-PL Model displayed:
 - Greater precision in estimating examinee skills.
 - A smoother scale score distribution.
 - A strong correlation with the original, 1-PL skill estimates
- If the scoring model was changed, the DAT score scale would also need to change (e.g., 1 - 30 → 200 - 800)

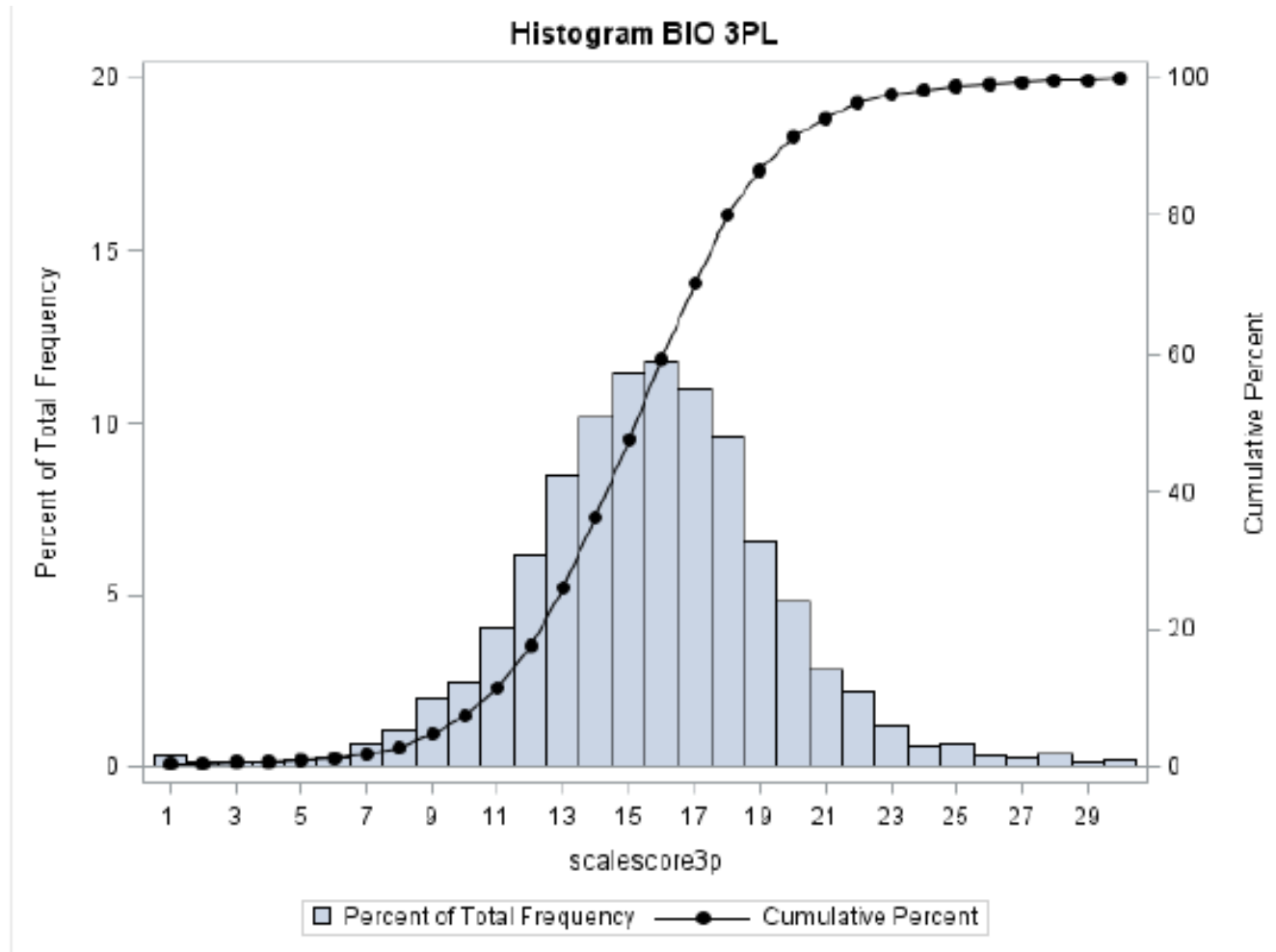
1-PL and 3-PL Scoring Models

- All models are designed to precisely estimate candidate skills
- The models estimate the probability that candidates of varying ability levels will answer each question correctly
- 1 Parameter - Logistic Model (1-PL)
 - relies solely on the known difficulty level of the question (i.e., item difficulty is the single parameter)
- 3 Parameter - Logistic Model (3-PL) relies on the:
 - difficulty level of the question (Item difficulty)
 - quality of the item (Item discrimination)
 - item's susceptibility to guessing (pseudo guessing)

1PL Scoring Model (Biology)



3PL Scoring Model (Biology) (DRAFT)

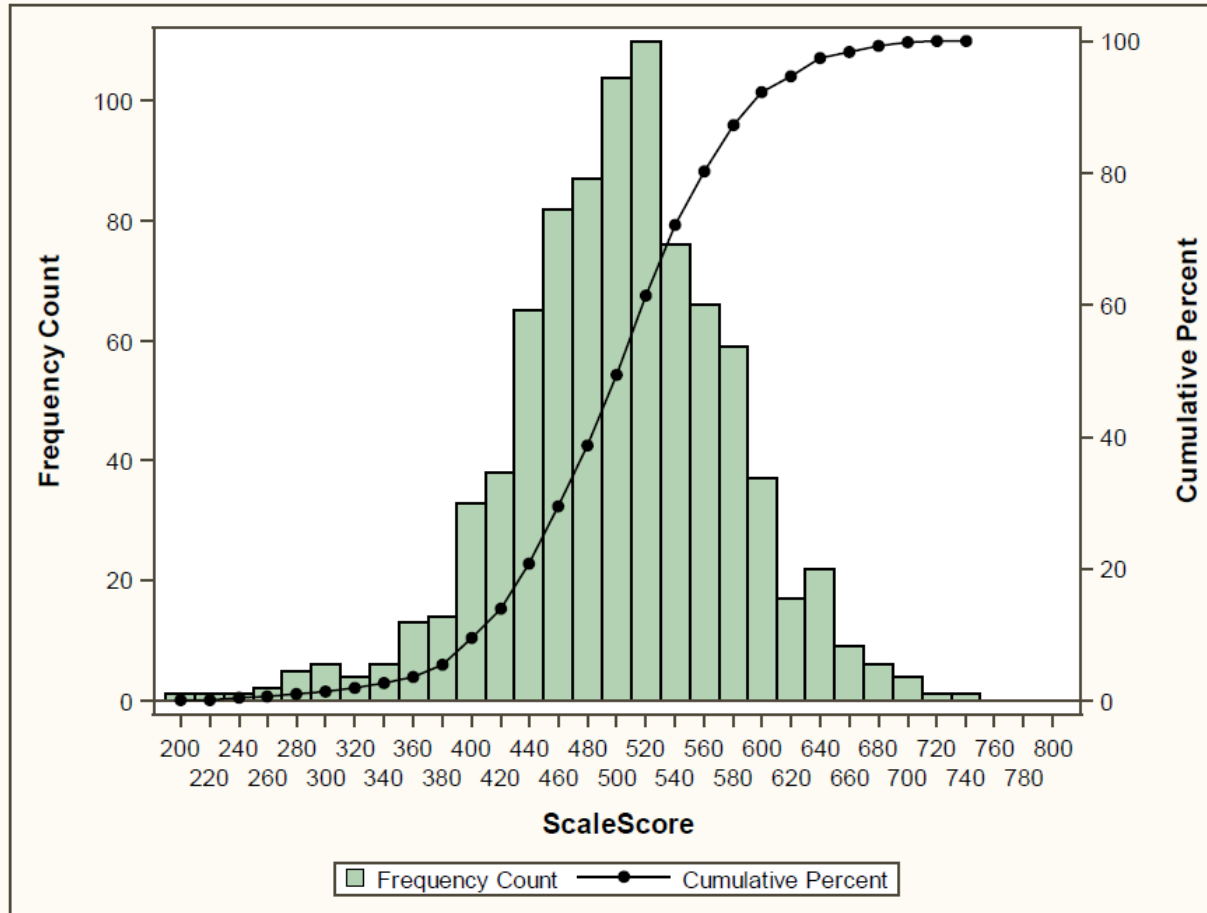


Thoughts or Questions?

The Advanced Dental Admission Test (ADAT)

The ADAT is a valid and reliable test

ADAT Overall Scale Frequency Distribution (2016-2019); N= 1,688



The Dental Clinical Image Repository Program (DCIRP)

Examination Images

- High quality images are vital to the assessment of candidates for numerous examinations important to the dental education community. For example:
 - Integrated National Board Dental Examination (INBDE)
 - Dental Licensure Objective Structured Clinical Examination (DLOSCE)
 - Advanced Dental Admission Test (ADAT)
- Images that are of diagnostic quality:
 - provide candidates the opportunity to demonstrate their skills and abilities
 - help to accurately, fairly, and reliably assess candidate skills
 - ultimately help protect the public
- Images that are of questionable quality:
 - confuse candidates and obscure skill measurement
- We need your help in collecting strong images for use in examinations

Introducing the Dental Clinical Image Repository Program (DCIRP)

- The DTS will provide each school with a list of images needed across examination programs
- We'd like to receive 15 or more images from each school, on an annual basis. We would provide reminders every 4 months
 - March 1, July 1, November 1
- Schools would need to give up their rights to use these images
- Images would be submitted through DTS' Image Portal
- Collected images could be used by any examination program
- DTS will send out a survey by December 2nd, requesting your participation and asking who should serve as contact within your school
- We'd like to ask each of you for your commitment to this program

Thoughts and Questions?

Thank You!