

Exhibit B

Dental Hygiene Mannequin Requirements

A typodont/mannequin quadrant to be used for a non-patient-based board examination for dental hygienists must have the following attributes to qualify for acceptance by this board to be used in an examination for licensure:

1. Must have sufficient calculus that is easily detectable. The calculus should be equivalent to a patient-based board quality.
 - a. WREB- currently not enough calculus. They are aware of this but will not be changing it for the 2021 testing season.
 - b. CDCA- currently not enough calculus, and the calculus is black. They will be changing the color and making sufficient and board quality calculus for the 2021 testing season.
2. Must have more than two different tests to prevent cheating or sharing the information with other candidates.
 - a. WREB- has one mannequin with testing on lower right or lower left.
 - b. CDCA- has 5 different mannequins, each with a right or left option for testing
3. The teeth that the candidate probes must have a realistic “epithelial junction”.
 - a. WREB- candidates probe on Maxillary arch. The candidates are graded from a key.
 - b. CDCA- candidates probe on two teeth they previously scaled. Examiners grade the probing.
4. Tissue trauma will be noted in grading
 - a. WREB- Plans to do this in 2021. Training on it during calibration.
 - b. CDCA- Did not grade this in 2020 but plans to do this in 2021. Not sure what the training will be for test examiners.
5. Tooth structure needs to be harder
 - a. Both testing agencies are aware and working to improve.
6. It is our opinion that both the dental and dental hygiene candidates should take the mannequin test in **conjunction** with the OSCE or DLOSCE. Together these make a very complete test of both technical as well as critical thinking and reasoning skills.

WREB is still in the “testing” phase and may not have what we deem sufficient to approve mannequin testing. They will most likely be prepared for the 2022 testing season for what we are requiring.

CDCA began field testing the hygiene mannequin in May 2020 and continues to make improvements as needed. They will be ready for the 2021 testing season.

The Dental Licensure Objective Structured Clinical Examination (DLOSCE)

A Webinar for State Dental Associations

November 19, 2020

Presenters



**Kanthasamy
Ragunathan, DDS, MS**

Chair, JCNDE



**Cataldo W. Leone, DMD,
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Past Chair, JCNDE



**David M. Waldschmidt,
Ph.D.**

Director, JCNDE

Overview

- The Joint Commission on National Dental Examinations (JCNDE)
- Background and History of DLOSCE Development
- OSCEs and the DLOSCE Approach
- DLOSCE Content Areas, Question Format, and 3D Models
- Common Questions about the DLOSCE
 - The DLOSCE and the Issue of Psychomotor/Hand Skill Evaluation
 - The DLOSCE and the Integrated National Board Dental Examination (INBDE)
- Findings from 2020 DLOSCE Administrations
- Additional DLOSCE Information and Resources
- Q & A

The JCNDE is a Commission of the ADA

- **Commissions are agencies of the ADA that have been granted independent authority to carry out their program and duties.**
- Philosophical foundation of Commissions:
 - Commissions must be:
 - Consistent
 - Free from bias and conflict of interest
 - Objective
 - No single community of interest can have undue influence in the decision-making process, including the ADA.
 - Quality assurance is necessary to protect the public and assure long-term viability of the profession.
 - Integrity, confidentiality, due process.
- Subject to the *ADA Constitution & Bylaws* and *ADA Governance and Organizational Manual*, and governed by the *Rules of the JCNDE* and the *Operational and Policy Manual* of the JCNDE.

Duties of the JCNDE

The *Constitution and Bylaws* of the American Dental Association indicate that the duties of the JCNDE shall be to:

- Provide and conduct examinations for all purposes, including assisting state boards of dental examiners in determining qualifications of dentists and other oral health care professionals seeking certification and/or licensure to practice in any state or other jurisdiction of the United States.
- Make rules and regulations for the conduct of examinations and the certification of successful candidates.
- Serve as a resource for dentists and other oral health care professionals concerning the development of examinations.
- Provide a means for a candidate to appeal an adverse decision of the Commission.
- Submit an annual report to the ADA House of Delegates and interim reports, on request.
- Submit an annual budget to the ADA Board of Trustees.

JCNDE Governance

In fulfillment of its *Bylaws* duties, the JCNDE oversees the following licensure examination programs:*

- National Board Dental Examination Part I
- National Board Dental Examination Part II
- Integrated National Board Dental Examination (INBDE)
- National Board Dental Hygiene Examination (NBDHE)
- Dental Licensure Objective Structured Clinical Examination (DLOSCE)

* NBDE Parts I and II are scheduled to be sunset on December 31, 2020 and July 31, 2022, respectively. The INBDE is designed to replace these examinations.

JCNDE Mission and Vision

Mission

Protecting public health through valid, reliable and fair assessments of knowledge, skills, and abilities to inform licensure and certification decisions that help ensure safe and effective patient care by qualified oral healthcare team members.

Vision

The JCNDE is the nation's leading resource for supporting standards of oral healthcare professionals through valid, reliable and fair assessments for licensure and certification.

DLOSCE Background

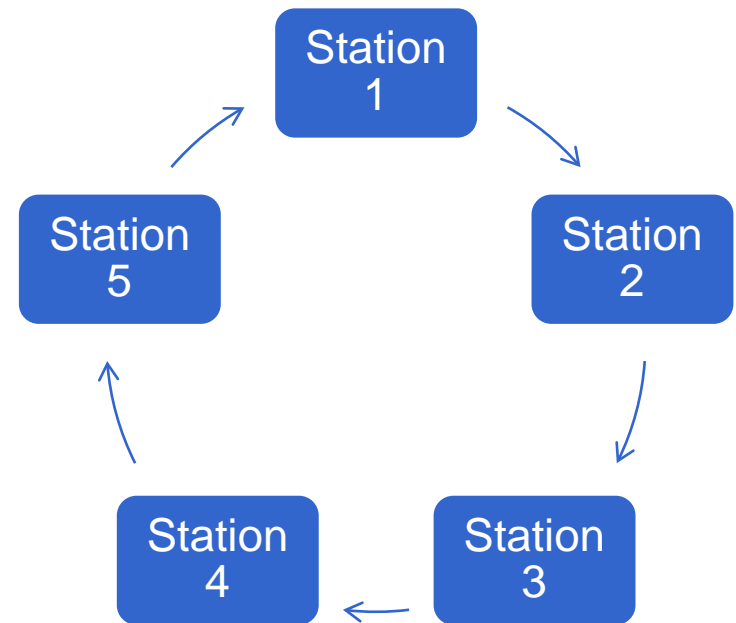
- In February 2017, the American Dental Association's (ADA's) Board of Trustees (BOT) approved development of the DLOSCE, and authorized formation of a DLOSCE Steering Committee charged with the task of developing and validating this examination.
- Since its first meeting in July 2017, members of the DLOSCE Steering Committee worked diligently to lay the foundation for this examination program (test content domain, test specifications, test construction team structure, test format, etc.), with the assistance of the DLOSCE Working Committee and staff from the Department of Testing Services.
- Development and implementation of the DLOSCE has required several years of intense focus and concerted effort by highly qualified dental subject matter experts
- Based on the recommendation of the DLOSCE Steering Committee—and with the full support of the JCNDE—the ADA BOT transferred DLOSCE governance to the JCNDE in January of 2020.

Why develop the DLOSCE?

- Gives dental boards the ability to identify those who lack the skills necessary for safe practice, using a professionally developed examination backed by strong validity evidence.
- Eliminates undesirable situations and complications that can arise from the use of patients in the examination process (e.g., patient's more pressing needs not treated in lieu of pursuing the "perfect lesion").
- Allows for more objective and comprehensive measurement of candidate skills.
- **Helps dental boards in their mission to protect the public.**

What is an Objective Structured Clinical Examination (OSCE)?

- A method of measurement
- Candidates rotate through short, standardized stations
- Assesses clinical competence, patient communication skills, knowledge of clinical procedures, prescription writing, etc.
- Widely used in the health sciences
- Success requires critical thinking
- OSCEs are evolving



Why conduct an OSCE?

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

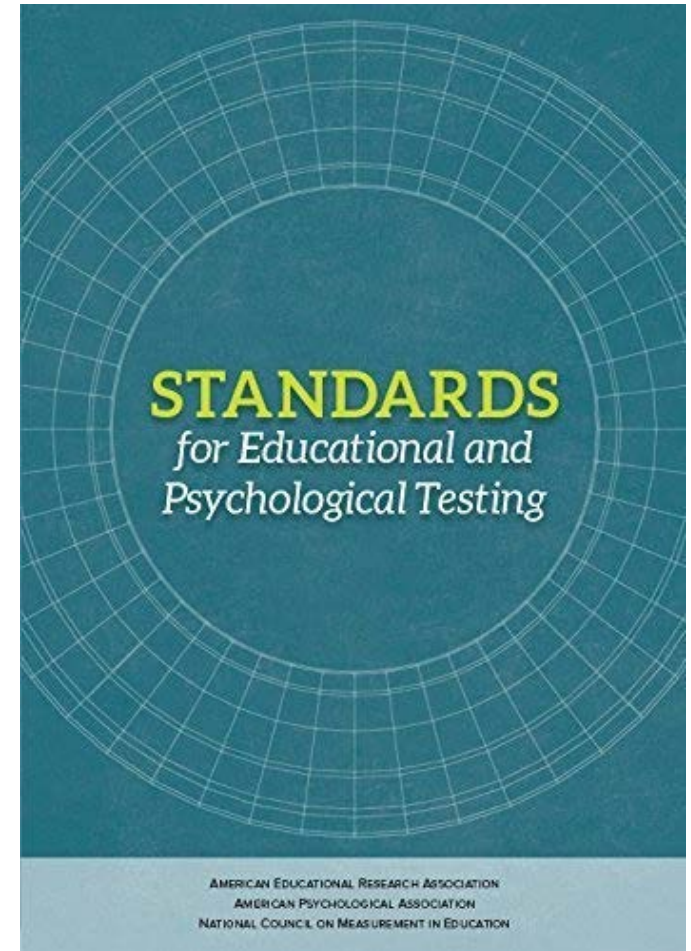
Can OSCEs currently be found in dental licensure?

- The OSCE developed by the National Dental Examining Board (NDEB) of Canada provides an example of one possible approach.
 - Development is a recurring, critical activity undertaken by experts, with questions selected by general practitioners to ensure clinical relevance.
 - The OSCE is administered three (3) times per year (March, May, and November) in fixed testing windows.
 - Administrations include 50 physical stations with two questions each, plus rest stations. Stations are focused and short (5-minutes).
 - NDEB Canada anticipates transitioning to a “Virtual OSCE” in March 2022.
- In a study involving 2,317 students at nine Canadian dental schools, Gerrow et al. (2003) found positive correlations between students’ examination scores and final year results.
 - Written examination and final year results: ($r=0.43$, $p<.001$)
 - OSCE and final year results: ($r=0.46$, $p<.001$)

Source: Gerrow, J.D., Murphy, H.J., Boyd, M.A., and Scott, D.A. (2003). Concurrent validity of written and OSCE components of the Canadian Dental Certification Examinations. *Journal of Dental Education*, 67 (8), 896-901.

The Standards for Educational and Psychological Testing

- In building the DLOSCE, the primary focus has been on validity, the evidence that supports the interpretation and use of examination results.
- The *Standards* were developed by the American Educational Research Association (AERA), American Psychological Association (APA), and the National Council on Measurement in Education (NCME).
- The *Standards* provide considerations for developing and implementing valid examinations.
- The *Standards* and industry best practices have guided DLOSCE design, construction, and implementation.



Validity Evidence

- Release of the DLOSCE in 2020 was based on content validity evidence; National Board Examinations are ALL supported by content validity evidence.
 - Establishment of content domain through practice analysis; reliance on subject matter experts and their judgment to determine item allocations, structure test development activities, build and review content, establish standards, etc.
- Data was collected at the time of administration, followed by scoring, standard setting, reporting, and then follow-up documentation (technical report) to provide information on obtained psychometric properties, etc.
- The practice of employing window testing and delayed reporting of scores is an accepted and valid means of test development, and was in fact pursued by the Joint Commission for decades, prior to the Joint Commission's transition to computer based test administration.
- The JCNDE follows established psychometric and test development procedures, proceeding with appropriate deference shown to the guidelines provided in the *Standards for Educational and Psychological Testing*.
- The JCNDE's approach in releasing the DLOSCE is psychometrically defensible while also being sensitive to the great need currently present at a difficult time.

The DLOSCE Approach

- Assesses understanding of clinical tasks performed in direct chair-side treatment
- Assesses quality, depth, and breadth of clinical judgment
- Assesses higher order processes
- Provides a professionally developed, psychometrically valid tool
 - *Content built by teams of highly qualified and highly dedicated subject-matter experts (150+ test constructors), who are practicing and/or academic dentists*
 - *Questions selected primarily by general practitioners to ensure clinical relevance*
- Builds upon well-established understanding of OSCEs and corresponding research

What Does the DLOSCE Cover?

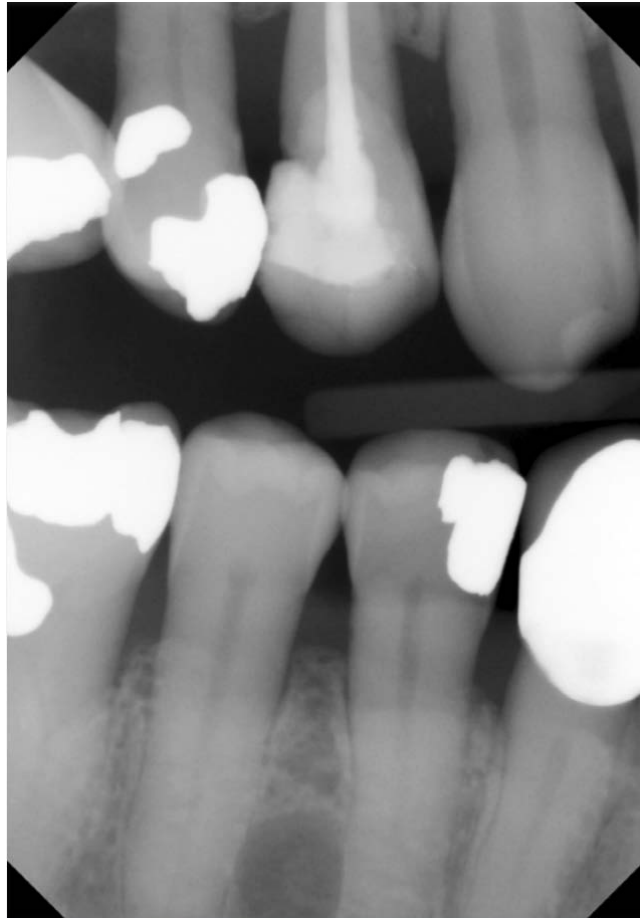
- Focal topic areas:
 - Restorative Dentistry (24%)
 - Prosthodontics (19%)
 - Oral Pathology, Pain Management, and TMD (13%)
 - Periodontics (10%)
 - Oral Surgery (9%)
 - Endodontics (8%)
 - Orthodontics (6%)
 - Medical Emergencies (6%)
 - Prescriptions (5%)
- Diagnosis and Treatment Planning—as well as Occlusion—are covered across the topics listed above.
- The DLOSCE includes questions involving patients of various types and backgrounds, including pediatric, geriatric, special needs, and medically complex patients.
- DLOSCE questions are modeled on dental clinical situations.

Evaluation of candidate responses

- Depending on the Question Type, each possible candidate response to DLOSCE questions is evaluated as follows:
 - **Correct.** This represents a correct clinical judgment based on the available information. Depending on the question, candidates can receive either full credit (1 point) or partial credit for a given correct response, as long as they avoided choosing any incorrect responses for the question.
 - **Clinical Judgment Error/Incorrect:** This represents a clinical judgment error. Choosing this response causes the candidate to receive no credit (0 points) for this question, even if a correct response was also selected.
 - **Unscored/Neutral:** This represents an indeterminate situation. These are situations—identified by dental subject matter experts—where given the available information a candidate’s choice of this response is considered neither correct nor incorrect.

Example of Multiple-Choice, Multiple-Response Question

Patient
Female, 56 years old
Chief Complaint
"I have a bump on my gums"
Background and/or Patient History
Current Findings
Swelling in the lower right premolar area



See next slide.

Example of Multiple-Choice, Multiple-Response Question

Select **ONE OR MORE** correct answers. Any **INCORRECT** selections will result in your earning **NO CREDIT** for this question.

Which should be included in a differential diagnosis?

- A. Normal anatomical variant
- B. Radiographic artifact
- C. Cyst or benign tumor
- D. Malignant tumor
- E. Odontogenic inflammatory condition
- F. Non-odontogenic inflammatory condition
- G. Reactive lesion (simple bone cyst, giant cell lesions)
- H. Fibro-osseous lesion
- I. Traumatic lesion/fracture
- J. Developmental condition
- K. Manifestation of systemic disease

Correct: C (partial credit, 0.5 points) and E (partial credit, 0.5 points)

Unscored/Neutral: G, H, and K

Clinical Judgment Error/Incorrect: Selecting any response other than a “Correct” or “Unscored/Neutral” response causes the candidate to receive no credit (0 points) for this question, even if a Correct response was also selected.

Content Classification: Oral Pathology, Pain Management, and Temporomandibular Dysfunction

DLOSCE 3-Dimensional Models



DLOSCE 3-Dimensional models



DLOSCE 3-Dimensional models



DLOSCE Key Facts

- Contains 150 questions and is administered in 6 hours and 45 minutes.
- Administered in testing windows at select US Prometric test centers:
 - June 15 – July 17, 2020 (completed)
 - November 9 – 27, 2020 (currently underway)
 - April 1 – May 4, 2021
 - July 6 – August 8, 2021
 - December 15, 2021 – January 10, 2022
- Results will be reported within 4 weeks of the closing of each window.
- Offered for a lower fee (\$800) in 2020 and 2021, to help students in light of COVID-19.

Examination Schedule	
Section	Minutes
Tutorial (optional)	25
Section 1 (37 Questions)	75
Break (optional)	10
Section 2 (37 Questions)	75
Section 3 (2 Prescription Questions)	10
Break (optional)	30
Section 4 (37 Questions)	75
Break (optional)	10
Section 5 (37 Questions)	75
Survey	20
Total Time	6 hrs, 45 min

Acceptance by Dental Boards

- The states below have adopted regulations which permit the acceptance of the DLOSCE. In some states, passage of the DLOSCE only partially fulfills the clinical examination requirement for licensure.
 - Alaska
 - Colorado
 - Indiana
 - Iowa
 - Oregon
 - Washington
- Dental boards in a number of additional states have expressed interest in learning more about the examination.
- See the Coalition for Modernizing Dental Licensure’s map highlighting initial licensure requirements, for additional information:

<https://www.ada.org/en/education-careers/licensure/dental-licensure-by-state-map>

The Issue of Psychomotor/Hand Skill Evaluation

- The DLOSCE is a “virtual OSCE” that assesses clinical judgment.
- The DLOSCE Steering Committee recognized the importance of hand skills in dentistry, and thoroughly considered the question as to whether to include a measure of hand skills with the DLOSCE (e.g., via a traditional manikin)
- The Steering Committee ultimately chose **not** to include a measure of hand skills with the DLOSCE.

Why Doesn't the DLOSCE Measure Hand Skills?

“There is no peer-reviewed scientific evidence that correlates [clinical licensure examination] outcomes with other validated assessments of clinical competence ... the process yields no verifiable value in its ultimate objective of providing for the protection of the public.”¹

This is despite decades of use of these examinations by dental boards.

All of these examinations currently include a manikin component.

¹ Friedrichsen, S.W. (2016). Moving toward 21st-century clinical licensure examinations in dentistry. *Journal of Dental Education*, 80(6), 639-640.

Why Doesn't the DLOSCE Measure Hand Skills?

“Validity refers to the degree to which evidence and theory support the interpretations of test scores for proposed uses of tests. Validity is, therefore, the most fundamental consideration in developing tests and evaluating tests.

...

Evidence of the validity of a given interpretation of test scores for a specified use is a necessary condition for the justifiable use of the test.”¹ (p11)

American Educational Research Association, American Psychological Association, National Council on Measurement in Education. (2014). Standards for Educational and Psychological Testing. Washington, DC: Author.

Additional Considerations

- Questionable ethics of performing irreversible procedures on a live patient as part of the licensure process (often not a “patient of record”)
- Potential for patient extortion when live patients are involved.
- Narrow focus (not comprehensive) of clinical licensure examinations, with extremely limited performance sample obtained.
- Clinical grading criteria may not reflect current recommended practice.
- Exams are costly, the logistics of their implementation interfere with the ability of qualified dentists to practice in different states, and nearly everyone ultimately passes (many with no remediation between testing attempts if a failure occurs).
- Dental board disciplinary actions can predominantly be attributed to failures in clinical judgment, ethical issues, substance abuse, etc. (not psychomotor skill deficiency).
- Rigorous accreditation standards and dental education training involving psychomotor skills, currently in place in dental education.
- Published, peer-reviewed research findings from NDEB Canada supporting utilization of an OSCE for licensure purposes, with implementation for two decades without apparent issue.

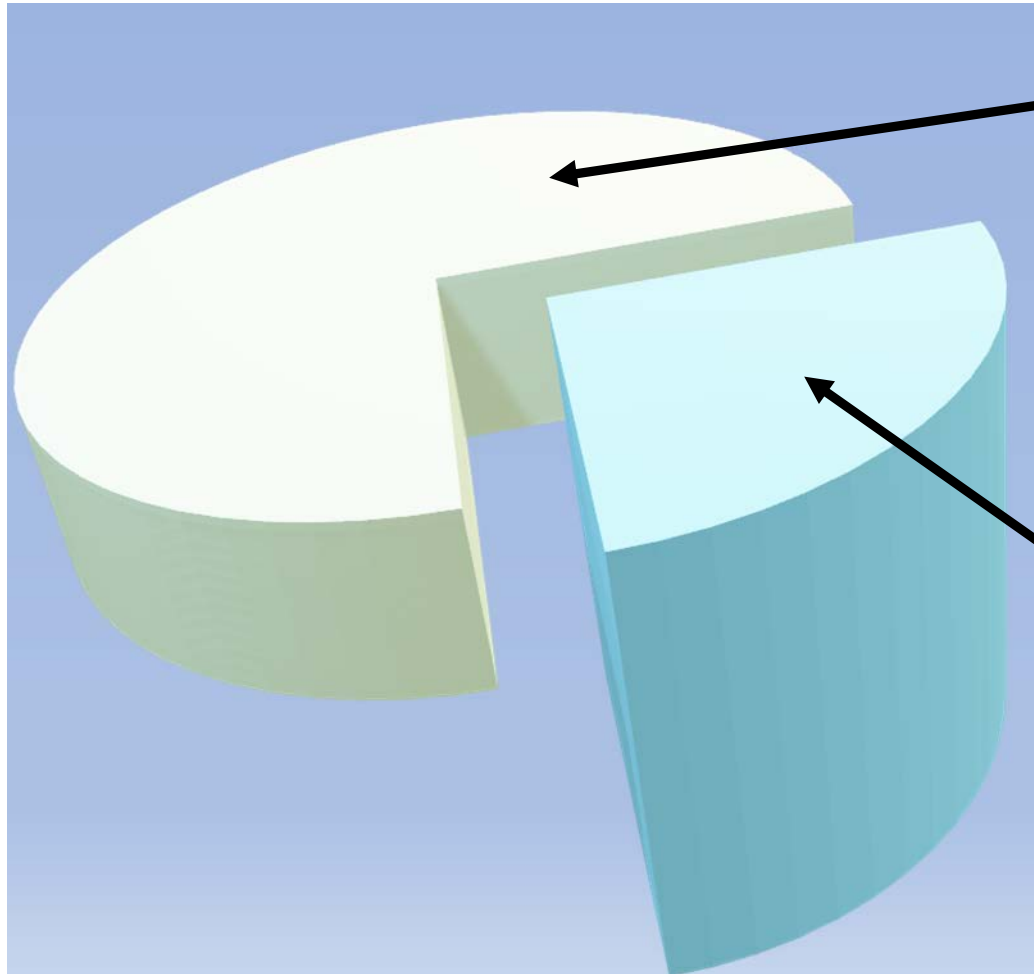
See the DLOSCE Technical Report for a comprehensive discussion.

The Preeminent Role of Clinical Judgment

- In light of the preceding arguments, the DLOSCE Steering Committee determined that the public would be far better served and protected by a comprehensive examination focused upon clinical judgment.
- Clinical judgments have a causal effect on patient outcomes **and** the associated psychomotor behaviors.

Understanding of procedure → Performance of procedure

How do the DLOSCE and INBDE Differ?



“Domain of
Dentistry” (INBDE)

**DLOSCE Content
Domain.** Clinical
content directly
applicable to chairside
treatment. **Also**
represents overlap
between INBDE and
DLOSCE.

How do the DLOSCE and INBDE Differ?

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

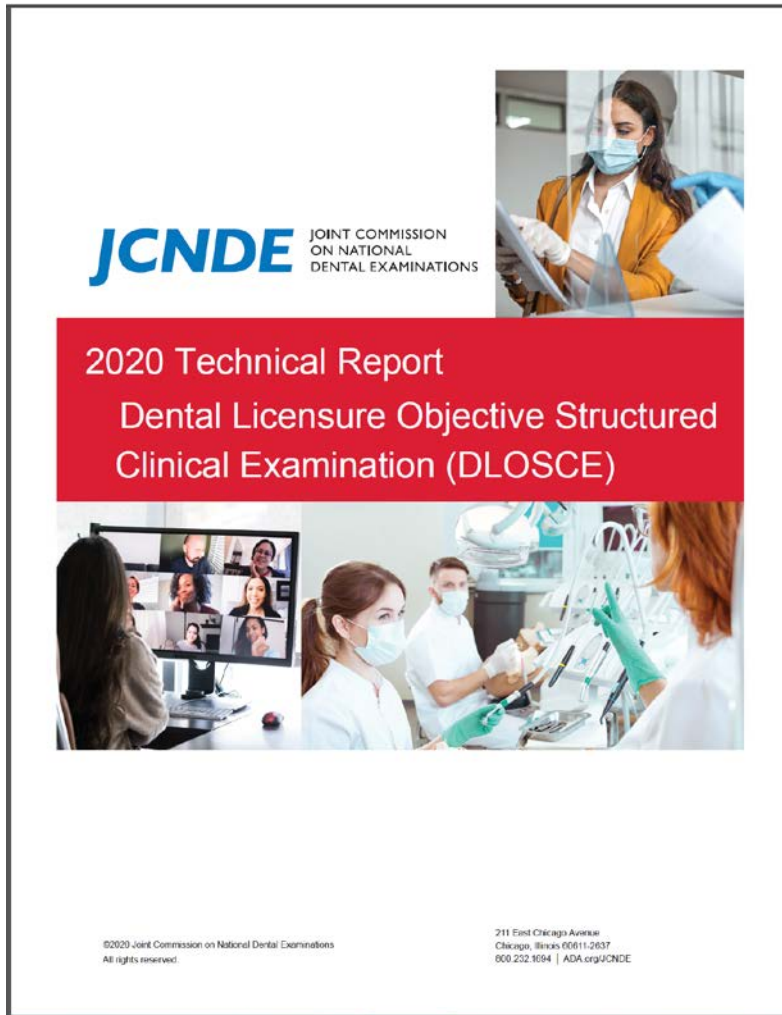
How do the DLOSCE and INBDE Differ?

DLOSCE Example	Corresponding INBDE Example
Review patient information and write an appropriate prescription.	Understand basic principles of pharmacokinetics and pharmacodynamics for major classes of drugs and over-the-counter products to guide safe and effective treatment.
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 local and central mechanisms of pain modulation.
Identify one or more flaws present in a metal-ceramic restoration.	Understand dental material properties, biocompatibility, and performance, and the interaction among these in working with oral structures in health and disease.
Epidemiology and statistics are <u>not</u> covered on the DLOSCE.	Understand the principles and logic of epidemiology and the analysis of statistical data in the evaluation of oral disease risk, etiology, and prognosis.

Summer 2020 DLOSCE Administrations

- The DLOSCE was released one year ahead of schedule due to COVID-19 considerations
- 120 candidates tested in June and July of 2020
 - 116 were educated by CODA accredited dental programs
 - 4 were educated by non-CODA accredited dental programs
- The vast majority were recent graduates (94% graduated in 2020)
- Each candidate tested at one of 15 available Prometric test centers
 - *Note: In November 2020 the number of available test centers is 170+*
- The majority of candidates (75%) were graduates from dental schools operating in states that accept the DLOSCE
- Candidates voiced positive feedback on the 3-D models, and also helped identify certain improvements
- Results were reported on August 21, 2020
- As noted previously, the DLOSCE's second testing window is currently underway.

DLOSCE Technical Report



- DLOSCE Technical Report now available on DLOSCE website (ada.org/dlosce).
- Documents DLOSCE psychometric properties and validity evidence.
- Includes expanded discussion of DLOSCE content and the question of psychomotor skill evaluation.

Correlations with Important Outcomes

Observed Correlations among the DLOSCE and NBDEs (N=120)

Score	DLOSCE	NBDE Part I	NBDE Part II
DLOSCE	1.00		
NBDE Part I	.46	1.00	
NBDE Part II	.60	.65	1.00

Failure Rates

DLOSCE Failure Rates by Candidate Group: Summer 2020*

	Accredited†		Non-Accredited‡		Total	
	Number	% Failing	Number	% Failing	Number	% Failing
Summer 2020	116	8.6%	4	25.0%	120	9.2%

† Indicates candidates educated by dental schools accredited by the Commission on Dental Accreditation.

‡ Indicates candidates educated by dental schools not accredited by the Commission on Dental Accreditation.

Note: The non-accredited group failure rate is presented for the sake of completeness, but must be interpreted with caution due to the small sample size.

Candidate Feedback

Feedback from candidates completing the DLOSCE:

“I think this was very well done and the future of dental licensure. It is a much more accurate assessment of clinical preparedness than a single encounter patient experience.”

“Thank you for making this test available for the Class of 2020 - truly I appreciate the efforts to make this test happen despite the uncertain changes the COVID pandemic brought to the healthcare profession. This was a fun exam and I believe the members involved in making this test happen have made a milestone for dentistry to move toward a more ethically sound path to licensure. Thank you and stay safe!”

“I really appreciated that this exam was clinically relevant and I found it to be much more thorough at assessing a clinician's skills and judgment than a one-day experience in the clinic (i.e. live patient exams such as WREB)”

General comments (paraphrased):

Would like to remove teeth in 3-D models to see better; with regard to interproximal contacts, would be nice to be able to use floss; exam was very difficult (if you choose an incorrect response option, the whole question is marked wrong)

Why Should the Dental Board in your State use the DLOSCE?

- **The DLOSCE helps dental boards in their mission to protect the public.**
- The DLOSCE measures clinical judgment
 - Disciplinary actions by dental boards largely focus on errors in clinical judgment.
- The DLOSCE is supported by strong validity evidence.
 - Extensive reliance on 150+ highly qualified subject matter experts who build examination content
 - Clinically relevant content that mirrors the dental practice
 - Supported by a team of measurement professionals with advanced degrees (psychometrics, etc.)
- The DLOSCE gives dental boards the ability to identify those who lack the skills necessary for safe practice, using a professionally developed examination backed by strong validity evidence.
- The DLOSCE provides objective and comprehensive measurement of candidate skills.
- The DLOSCE is not subject to any further shutdown of dental school clinics due to the pandemic.
- The Joint Commission on National Dental Examinations (JCNDE) has a long and successful track record of delivering high quality, high stakes licensure examinations that are used by boards to help protect the public.

How Can You Help Promote the DLOSCE?

Development of the DLOSCE has been an historic undertaking. Many have voiced an interest in being a part of this effort to modernize dental licensure.

- Help build a consensus within your state association, in support of the DLOSCE.
- Help build a consensus within local dental schools, in support of the DLOSCE.
- Together with your state dental association and local dental school(s), advocate for the DLOSCE with your state's dental board.
- Request that your state dental board accept successful completion of the DLOSCE as complete fulfillment of boards' clinical licensure examination requirement.
- Consider joining the Coalition for Modernizing Dental Licensure
 - Web: www.dentallicensure.org Email: info@dentallicensure.org

Additional Information and Resources

- Practice Questions
- 3D Model Tutorial
- DLOSCE Candidate Guide
- DLOSCE Quick Facts
- DLOSCE Technical Report
- Summary of Content Validity Evidence
- Recorded Webinars
 - Dental Boards
 - Dental Students
 - Dental Educators
- Key JCNDE links for additional information ([ada.org/dlosce](https://www.ada.org/dlosce))
 - <https://www.ada.org/en/jcnde/dental-licensure-objective-structured-clinical-examination/news-and-resources>
 - <https://www.ada.org/en/jcnde/dental-licensure-objective-structured-clinical-examination/test-preparation>

References

1. The National Dental Examining Board of Canada. Technical Report: Objective Structured Clinical Examination. 2019. [ndeb-bned.ca/sites/ndeb/files/pdf/ TechnicalManuals/2018/acj_2018_technical_report_ approved091419.pdf](https://ndeb-bned.ca/sites/ndeb/files/pdf/TechnicalManuals/2018/acj_2018_technical_report_approved091419.pdf).
2. Gerrow, JD; Murphy, HJ; Boyd MA; and Scott, DA. Concurrent validity of written and OSCE components of the Canadian dental certification examinations. *J Dent Educ*. 2003 Aug;67(8):896-901.
3. Gerrow, JD; Murphy, HJ; Boyd MA; and Scott, DA. An analysis of the contribution of a patient-based component to a clinical licensure examination. *J Am Dent Assoc*. 2006 Oct;137(10):1434-9.
4. Ranney RR, Wood M, and Gunsolley JC. Works in Progress: A Comparison of Dental School Experiences Between Passing and Failing NERB Candidates, 2001. *J Dent Ed* 2003 March;67(3):311-316.
5. Ranney RR, Gunsolley JC, Miller LS, and Wood M. The relationship between performance in a dental school and performance on a clinical examination for licensure: a nine-year study. *J Am Dent Assoc*. 2004 Aug;135(8):1146-53.
6. Ranney, RR. What the available evidence on clinical licensure exams shows. *J Evid Base Dent Pract* 2006; 6:148-154.
7. Chambers DW. Board-to-board consistency in initial dental licensure examinations. *J Dent Educ*. 2011 Oct;75(10):1310-5.
8. Friedrichsen, SW. Moving toward 21st-century clinical licensure examinations in dentistry. *J Dent Educ*. 2016 Jun; 80(6): 639-640.

Q & A



**Kanthasamy
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Chair, JCNDE



**Cataldo W. Leone, DMD,
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Past Chair, JCNDE



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Director, JCNDE

Thank you!

The JCNDE appreciates your interest in the DLOSCE.

**Dental Exam Review Board
November 14, 2020
GoToWebinar**

MEETING SUMMARY

Members Present:

Dr. Rudy Ramos
Dr. Bryce Castillon
Dr. Nathan Catmull
Dr. Gregory Ceraso
Dr. Amy Fine
Dr. Leslie Hayes
Dr. Bryan Henderson
Dr. Michael Howl
Dr. William Kane

Dr. Ross Lai
Dr. Russell Morrow
Dr. David Nielson
Dr. Daniel Poulson
Dr. John Williams
Dr. Brent Fung
Dr. Dale Chamberlain
Dr. Bruce Horn
Dr. Mark Christensen

Staff and Others Present:

Beth Cole, Chief Executive Officer
Sharon Osborn Popp, PhD, Testing Specialist
Toni Jones, Director of Dental Operations

The meeting was called to order at 8:30 a.m. MST by the DERB Chair, Dr. Rudy Ramos. Dr. Ramos welcomed members and introductions were made.

Psychometric Update

Dr. Sharon Osborn Popp presented an overview of the 2020 exam statistics, to date. The information provided included updates about examiner performance, exam site comparability, candidate performance, and development and implementation of the 2020 Operative Manikin exam.

Committee Reports

WREB's dental department currently include three committees: CTP Committee, Operative & Periodontal Committee, and Endodontics & Prosthodontics Committee. Dr. Rudy Ramos, Dr. Bruce Horn and Dr. Mark Christensen presented a summary of the written reports submitted by each committee chair. Reports included information about the work the committees have completed over the past year and plans for the next year.

Updates to the 2021 Dental Exam

Dr. Mark Christensen, Assistant Director of Dental Exams, updated members in regards to the 2021 dental exams. There are no substantial changes to the Endodontics, Prosthodontics, Operative Patient,

and Periodontal Treatment Patient exams for the 2021 exam season. There was a change to the criteria weighting for the CTP exam, which will have a small impact on the pass rate, but will be an improvement to the exam overall.

Changes to the Operative Simulation Exam for 2021:

- Op Sim uses new teeth for the preparations (Class II and Class III)
- The teeth will have enamel and dentin layers with identifiable DEJ
- There will be simulated caries with improvements in the color and tactile sensation
- The caries vary somewhat and tend to spread along the DEJ
- The caries will, in every case, require a modification request
- The teeth have pulp chambers with an exposure risk
- The teeth involve radiographic reference and interpretation
- Both preparation and restoration are accomplished in full simulation with rubber dam isolation

Dr. Christensen shared images of the new anterior and posterior tooth with simulated pulp and caries, as well as the simulated radiographs that will be provided to the candidates. Candidates will be able to obtain similar RTX teeth from Acidental for practice, but not the exact teeth that will be used in the exams.

Changes to the Periodontics Treatment Exam for 2021:

WREB has developed a Perio Simulation exam for 2021 and field testing is currently in progress. The simulation exam requires:

- Removal of subgingival calculus from all teeth in an assigned quadrant mounted in a manikin
- The same restrictions, critical error, and grading criteria that apply to the WREB patient-based Periodontics Treatment section will apply to the simulation-based exam
- There is no need to qualify the patient as all assigned quadrants will already be qualified
- Candidates may have 60-90 minutes to complete the treatment (will be determined by results of field testing)

Dr. Christensen shared images of off the shelf perio typodonts and WREB's arch that will be provided to the candidates. In comparison, WREB has changed the size, character and color of the calculus.

The administration of both the 2021 Operative Simulation exam and Periodontics Treatment exam enables onsite/offsite grading, enhances social distancing with minimal use of auxiliary personnel, adapts to a broad variety of school facilities, requires universal precautions, increases standardization, and reduces candidate cost.

Dr. Christensen introduced the new WREB Dental Therapy exam which is currently under development. The exam will have four components which will include a computer-based exam, an operative adult restorative section, a pediatric dentistry simulation section, and a periodontal section. The pediatric simulation exam will need to be field tested.

Reports from States on Clinical Licensure Testing

Each representative reported on behalf of their respective state board:

Dr. David Nielson for Alaska: AK regulations that currently passed got rid of requiring the perio component for dental altogether. AK is accepting a patient or manikin based operative exam, two procedures with at least one Class II, through the end of 2020 and in December 2020 will be voting to extend the simulated operative through the end of 2021. Chances are that it will pass in December. AK also requires the endo component, prosth component, and CTP or any other OSCE type treatment planning test. Hygiene only accepts live patient WREB exams and is out for public comment to vote on staying with live patients and opening it up to any live patient exam in December. Alaska has one school that's accredited for dental therapy but it hasn't come to the state board to request licensure.

Dr. Russell Morrow for Arizona: AZ removed the word "WREB" from their licensure protocol. There were a lot of candidates doing the bare minimum to get licensed, but as a state, Arizona is a big proponent of live in- person exams and making sure that everyone does all parts of WREB. AZ requires Class III and Class II perio, prosth, and endo exams. For 2020 during Covid, AZ licensed everyone temporarily without an exam until in-person exams were available, and then they have three months until the end of the year to sign up and take an in-person exam. AZ is now preparing rules for licensing dental therapists.

Dr. Ross Lai for California: As of May 2020, CA accepted WREB and ADEX manikin-based exams permanently as there is nothing in the statute stating a limitation on manikin exams. As of June 2020, CA accepted the WREB CTP exam, ADEX perio scaling manikin exam, and ADEX DSE OSCE as satisfying the requirement for the perio portion.

Dr. Greg Ceraso for Iowa (Dr. Ramos provided update on his behalf): The Iowa Board is in agreement that they will accept both manikin and patient based exams for both dental and hygiene candidates in 2021. Candidates will be required to pass the perio manikin exam. Iowa is adding the WREB manikin exams to their statute language which already includes the CRDTS and ADEX manikin exam.

Dr. Nathan Catmull for Idaho: Idaho decided to basically extend what they did for 2020 until 2021, which was to accept the manikin operative exam. Idaho also decided that the CTP exam covered the requirement for perio for 2020 and 2021. This may change since WREB is now offering a perio manikin exam, but as of now, the CTP exam satisfies the perio requirement.

Dr. John Williams for Illinois: Illinois will accept manikin exams all through 2021 for both dental and hygiene. Both Class II and Class III lesions will be required on the manikin tooth for operative, as well as, endo, prosth, and perio for dental. The CTP exam being accepted in lieu of the perio exam was not discussed during their last meeting, but Dr. Williams will open it up for discussion during the next meeting in December 2020.

Dr. William Kane for Missouri (Beth Cole provided an update on his behalf): Beth stated that through conversations that she's had with the Board, that she believes that they are accepting the manikin exams and all other exams for 2021. (Dr. Kane confirmed via email).

Leslie Hayes for Montana: The current rule, since late August 2020, is that the WREB manikin exam, including CTP in lieu of clinical perio, is accepted. This exception is good for graduates of 2020 and is still the current rule. At the September 2020 meeting, the board voted to change the language of the clinical rule to allow for Board approved manikin exams. This change is still underway through the Secretary of State. The two Board approved examinations as of September 2020 are WREB and ADEX. The Board also changed the time limit from 2020 graduates to those who graduate within 90 days from

the expiration of the Governor's declared State of Emergency which will extend the time limit into 2021. For hygiene, the board is issuing temporary licenses to candidates who have completed their clinical or national boards. They must have passed one of the two prior to getting their temporary license. There is no time limitation on when an RDH could qualify for this permit.

Dr. Mike Howl for Oklahoma: For 2020, OK circumvented the requirement of a live-patient exam by allowing the dental or hygiene student to present documentation attesting to the student performing the patient procedures satisfactorily during the clinical aspect of the school year and signed by the dean, instructor, and student. Temporary licenses were also allowed for dental hygienists and dentists until the end of 2020. All of the changes were voted on to expire on January 1, 2021. The Board will be meeting again in January 2021 to decide if they will continue with what they are currently doing or to ask the legislature to make changes. Most of the board members would like live patient exams.

Dr. Amy Fine for Oregon: As of right now, Oregon is accepting any clinical exam, and the way that is defined is left up to testing agencies since the state does not have stronger wording in its Dental Practice Act. There is a legislative bill that has gone forward to add dental therapists to the Oregon state board and to create dental therapy licensing criteria. The bill was sent back and a revised version will go forward this year. It's anticipated that the bill will pass within the next two years, a dental therapist will be on the Board and Oregon will be licensing dental therapists. They currently have four dental therapists who have been trained that are seeking licensure. Oregon has two pilots occurring to define the dental therapy role.

Dr. Brian Henderson for Texas: In September 2020, the TX Board submitted a rule to the Governor's office to require live patients as the definition of clinical exams which has not yet been addressed or released for publication. TX requires all of the exam components that WREB offers for licensure. TX has licensed everyone who took the CTP as the perio component and they are going to accept whatever WREB says is their perio going forward. TX doesn't license Dental Therapists.

Dr. Daniel Poulson for Utah: Utah has a meeting scheduled for December 4, 2020 to make a determination of what will be accepted for 2021. It's expected that the Board will accept manikin-based exams as they did for 2020. All five components of the exam are required. The Board is currently looking for a better solution for a manikin based perio exam as far as calculus removal. If worst comes to worst, they will probably accept the WREB CTP for perio again for 2021, but will not know until the meeting in December.

Dr. Bryce Castillon for Wyoming: Wyoming's criteria has not changed with Covid. A clinical exam is still required on a patient for both operative and perio. The Board has met several times, but feel strongly that they would like to keep patient based exams as long as possible.

Dr. Brent Fung (Western Univ) – Educator Update: Currently, education is varied due to Covid. Very few schools are running close to 100% of previous clinic capacity, or think they will be able to return to 100% by January. Western University has been running right in between 75%. There are a number of patients who are not returning and a number that are taking advantage of this time. There have been no intra building transmission of Covid within dental schools which has been very positive and a stress relief for all clinic Deans.

Questions for the group to consider:

1. There were previously passed WREB candidates who were not required to take the prosth section, but now states have added that requirement. Dr. Fung asked for the states to consider making prosth requirements clearly delineated, the same as they have done for other sections of the exam.

2. Dr. Fung receives many requests for nitrous certification and asked if states are looking at doing something with nitrous certification. He also asked if WREB would consider doing something that includes nitrous if we're going to start certifying candidates on nitrous.
3. Do states have an interest in local anesthesia being assessed for dental applicants?
4. Are there things that dental education is not doing well from a state perspective that can be shared on a national level?

WREB Update

Beth Cole announced that we made history as the first virtual DERB meeting for WREB. She looks forward to the day when we can all gather together again and network. Beth reflected on the effects of Covid-19 on the business, its practices, staff, and volunteers. As a result of Covid-19, WREB's well organized plans for delivering exams for dental and hygiene had to be reengineered while simultaneously working with schools to figure out a new way to deliver exams, and working with state boards to gain acceptance and work towards implementation.

Beth thanked Dr. Horn, Dr. Christensen, Denise Diaz, and the dental staff for their efforts in working together to reshuffle, adjust to a new reality, and support the development of new exams in new ways, while keeping stressed candidates informed and happy. Beth also recognized the new dental director, Toni Jones, for a seamless transition, and Sharon Osborn Popp for working tirelessly to evaluate all field test results, providing exam information and data, and helping to keep state boards well informed about WREB's efforts to continue to provide valid and reliable exams. Beth announced Denise Diaz's departure as the dental director, but informed everyone that Denise is still working in the background to help implement the new manikin exams for 2021.

Beth thanked the schools that host exam sites for working together to host safe exams. She also expressed a huge thank you to state board members and examiners who participated in exams this year under super challenging circumstances, while taking personal risks with travel during Covid.

WREB has become more flexible in delivering exams and is much better prepared to respond with much more flexibility in the future. Beth Cole and Toni Jones reached out to each host site to discuss scheduling for 2021 and will be creating schedule templates for each school, recognizing that plans could change, whether it be changes to the exam format, scaling back the teams that we send to exams and providing off-site grading depending on travel and social distancing restrictions.

WREB started a campaign this year to get more active with social media for real time communication with candidates. The Facebook platform is helpful in pointing candidates to state board websites and for posting statements directly from state board websites about licensure requirements. The platform is also helpful for keeping state board members informed on what other state boards are doing. WREB also partnered with the organization, Test Run, which grants dental candidates a complimentary 90-day subscription to take practice tests online for WREB exams. Dental candidates receive immediate feedback on the areas where they may need more preparation and may retest an unlimited amount of times. WREB has received positive feedback from dental candidates and is currently in the process of implementing the same for hygiene candidates as well.

Election Results

Dr. Ramos reported the following election results:

- Dr. Rob Lauf, President
- Dr. Rudy Ramos, President-elect
- Dr. Jonna Hongo, Treasurer
- Dr. Aimee Ameline, Dr. Mike Moriarty, Darren Huddleston, Members-at-large

The meeting was adjourned at 12:45 pm MST.

Respectfully Submitted,

Toni Jones
Director of Dental Operations

Exhibit A

Typodont/Mannequin Tooth Characteristics

A typodont/Mannequin Tooth to be used for a Non-patient based Board Examination for Class II and Class III preparations **must**, at a **minimum**, have **all** the following characteristics/attributes in order to be accepted as qualifying for acceptance by this board to be used in such an examination for licensure:

- 1) Discrete caries contained within the enamel and dentin
- 2) Obvious Dentin-Enamel interface (a definite DEJ) that is detectable visually
- 3) Diagnostic Caries visually and tactilely detected, that can be detected and removed with dental instruments (explorer, dental burrs, hand instruments, etc.)
- 4) Variability in the caries:
 - a. Placement within the tooth surfaces
 - b. Amount of caries present – accurate in the amount tooth to tooth when reproduced for utilization in an examination setting
 - c. Models the biologic variability of caries, e.g. frank caries, affected dentin, and unsound demineralized enamel each presenting a different tactile “feel” to an explorer as would be presented by a human tooth with caries
- 5) Caries models natural pathways of infection within the tooth in both depth and the way it spreads along the DEJ in a natural tooth
- 6) Life like enamel – cuts like human tooth enamel (is not softer), does not chip at the margins when cut with standard dental burrs or diamonds
- 7) The material is restorable just as if it was human tooth structure:
 - a. Composite can be bonded to the tooth’s material with the same materials that are used in normal clinical practice methods
 - b. Composite/Amalgam can be finished to the margins with standard clinical instruments and methods to achieve proper results
- 8) Provides the following clinically:
 - a. Diagnostic challenges to discover and properly remove caries
 - b. Amount of caries placed in the tooth necessitates preparation modification(s) from and “ideal” preparation design
- 9) Tooth must have a pulp:
 - a. That accurately reflects the pulp size and shape as the same tooth would in a human tooth of the same description (tooth #3, 7, or 8 etc.)
 - b. Contains a pulp, pink to red in color such that a pulp exposure can be easily detected by a candidate and/or an examiner
- 10) Tooth identifies the same critical types of deficiencies identified in a patient based examination as shown/demonstrated by data analysis comparisons between patient based and non-patient based examinations to verify the fidelity of the typodont/mannequin tooth as compared to a human tooth used in the same circumstance

**WREB Hygiene Exam Review Board (HERB)
Video Conference
October 17, 2020**

Summary

Members in attendance:

Brenda Chavez, RDH, Educator Member	Yadira Martinez, RDH (OR)
Marilyn McClain, RDH (AZ)	Lori Jones, RDH (TX)
Gail Walden, RDH (AK)	Kathleen Harris, RDH (UT)
Marianne Timmerman, RDH (HI)	Joni Hamilton, RDH (WY)
Meg Long, RDH (ID)	Kathy Heiar, Chair
Nancy Slach, RDH (IA)	Janet Ingrao, RDH, Co-Director of DH Exam
Jill Harding, RDH (KS)	Kelly Reich, RDH, Co-Director of DH Exam
Christy Jo Fogarty, RDH, ADT (MN)	Amber Moran, RDH, Assistant Director
Deborah Polc, RDH (MO)	Sharon Osborn Popp, PhD, Psychometrician
Paula Jenkins, RDH (NM)	Daniel Kelley, Data Specialist
Beverly Marsh, RDH (ND)	Robin Yeager, Director of DH Operations
Karen Sehorn, RDH (OK)	Beth Cole, CEO

The meeting was called to order at 8:33am by the HERB Chair, Kathy Heiar, RDH. Kathy welcomed members and introductions were made.

WREB in Review

Beth Cole, WREB CEO discussed in detail the following:

- The effects of COVID-19 on the business, its practices, employees, its volunteers (examiners), the schools and the students.
- In regard to patient-based exams, our primary concern was the safety of all involved.
- Successfully reshuffling the exams, adjusting to the new reality, and administering exams in new ways, and kept the extremely stressed candidates as calm as they could with information and updates.
- Created and launched the Dental Hygiene Objective Structure Clinical Examination (OSCE) as an alternative non-patient exam.
- WREB representatives attended countless state board meetings to present the details of our OSCE exam to provide them a better understanding of our current offerings and achieve acceptance and the safe delivery of our exams.
- Introduced the manikin exam for 2021 as another alternative to the patient-based exam.
- WREB has incurred some staff changes over the year, the expected number of departures that occur with any organization.

- Professional Background Information Services (PBIS) will be closing at the end of the 2020 calendar year. PBIS' services were utilized by some state boards.
- WREB has partnered with a marketing firm, to establish a presence on social media and encouraged all to like WREB on Facebook.
- WREB also partnered with the company Test Run, to provide free pre exam preparation testing opportunities to candidates.

Dental Hygiene in Review

Janet Ingrao, Co-Director of Dental Hygiene Exam Development updated members in regard to the OSCE. She stated that as a testing agency, we had many requests from state boards and students to develop an alternative exam that would enable state boards to grant licensure to candidates during this unusual year, without utilizing a patient. Hence the creation of the OSCE.

The OSCE has test items on medical history, risk assessment, extraoral/intraoral examination, development of a dental hygiene treatment plan, periodontal assessment, (radiographic interpretation including the AAP staging and grading guidelines) and instrumentation. The exam is still designed to test the entry level candidate.

Kelly Reich, Co-Director of Dental Hygiene Exam Development provided a brief summary in regard to the manikin exam, announcing it will be available 2021. WREB has been working with a vendor for a couple of years in regard to developing a manikin exam but we did not feel it was ready yet to release in 2020. With COVID some other agencies were quick to put out a product in 2020 that we were not comfortable with. WREB's goal is to always create and administer valid examinations, which drives us to be diligent and complete adequate field tests to collect the data to ensure a psychometrically sound exam.

The WREB manikin exam consists of two exercises: a periodontal assessment and subgingival calculus detection exercise and a removable calculus (subgingival) exercise.

Committee Reports

WREB's dental hygiene division currently includes three hard working committees: Restorative, Local Anesthesia, and Dental Hygiene. Kelly Reich and Janet Ingrao provided summaries of the written reports on behalf of the Restorative, Local Anesthesia and Dental Hygiene Committees. The reports detailed the work the committees accomplished over the past year and updates for the upcoming exam season.

Psychometric Review

Sharon Osborn Popp, PhD, presented an overview of the 2020 local anesthesia, restorative and dental hygiene exam statistics to date, as we have approximately ten exams still to be administered this year.

Sharon also detailed examiner performance and exam site comparability. Stating that we ensure examiners are well trained and well calibrated by providing a great deal of training in the beginning of each season and then requiring ongoing online and onsite calibration prior to every single exam. WREB examiners also get performance feedback after every exam.

In presenting exam site comparability, Sharon stated that the remarkable results are due to the rigorous examiner training, well-planned examiner teams, team linkage across sites (no isolated teams), the standardized administration procedures and extensive post exam review and analyses.

Educator Report

Brenda Chavez, the educator member of HERB, reported that her program, Carrington College, Mesa was one of the many schools that needed to postpone and reschedule their exams due to the pandemic. That, like many other programs, they continue to scramble to get student clinic hours caught up but expect to be up to date by the end of this calendar year.

She also noted that the state of education is in complete upheaval. As dental hygiene program directors have to deal with individual state requirements, ADA requirements, as well as CDC requirements. In addition, directors have to deal with their own school requirements on how students can practice with patients and in regard to what equipment they are allowed to use.

She also mentioned that Carrington College is also one of the programs that is assisting with the manikin exam field test.

State Board Member Updates

Each HERB member briefly reported on behalf of their respective State Board or Dental Hygiene Committee. Each representative's report included a brief summary of their state's statutes/rules or current position on accepting non-patient-based exams, and any upcoming legislature relating to clinical licensure.

The meeting adjourned at 12:30pm.

Respectfully submitted,

Robin Yeager
Director of Dental Hygiene Operations