

# Cut-off Scores Evaluation of Two Undergraduate Endodontic Courses at the Faculty of Dentistry, King Abdulaziz University (KAU-FD)



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# INTRODUCTION



- ❧ A **standard setting** or cut-off score is used to separate students who pass certain exams from those who do not.
- ❧ It is challenging to establish a **credible** and **defensible** cut-off score in health care professions.
- ❧ In the health care profession, **making a wrong decision** in passing or failing borderline students could **negatively** affect either the **community** or **students**.

# INTRODUCTION



- ❧ The most accepted cut-off scores by most institutions are **50% to 70%**.
- ❧ At King Abdulaziz University (KAU), the cut-off score for the under graduate courses is **60%**.
- ❧ Exams at the Faculty of Dentistry (KAU-FD) are usually constructed to match KAU regulations though they have never been evaluated.

# PURPOSE



to evaluate the cut-off scores of two final fifth year written exams of the undergraduate Endodontic course to check if they met KAU cut-off score.



# MATERIALS & METHODS



## ∞ Exams:

- ∞ Two final fifth year undergraduate Endodontic written exams (KAU-FD) were evaluated in this study.
- ∞ Each exam had 140 multiple-choice items.

## ∞ Standard setting:

- ∞ The Angoff rating method was used for the assessment.

# MATERIALS & METHODS



## ❧ Judges:

- ❧ **Four** senior faculty members participated in the evaluation.
- ❧ All were **qualified** faculty and **content** experts.
- ❧ They **attended all meetings** and followed all directions.

# MATERIALS & METHODS



## ☞ Meetings:

- ☞ one at the beginning of the study in which the Angoff method and the roles were explained.
- ☞ At that meeting, several multiple-choice questions (MCQs) were evaluated by the judges to define borderline students, and to reach consensus.

# MATERIALS & METHODS



## ☞ Meetings:

- ☞ The rest of the exams' items were evaluated at the convenience of each judge.
- ☞ To ensure feasibility, a weekly meeting was set for the judges to discuss their Angoff judgments until all items of both exams were revised and a consensus was reached.
- ☞ Data was collected and statistically analyzed.



# RESULTS



- ❧ The cut-off scores for **Exam 1** was **57.4%**
- ❧ **Exam 2** was **62.9%**.
- ❧ These two cut-off scores were **near** the 60 percent cut-off score accepted by **KAU**.

# RESULTS



## ❧ Exam 1

- ❧ was slightly difficult by 2.6%.
- ❧ Based on the students' records, there was no failure in this exam.
- ❧ However, some students' results were changed when the exam's cut-off score was adjusted to 57.4%.
- ❧ Out of 97 students, one student's result was changed from **B to A**, four were changed from **C to B** and four from **D to C**.

# RESULTS



- ❧ After the test has been given, it is essential to confirm that the standard produces realistic results.
- ❧ The item analysis of Exam 1 was used to correlate the judges' estimates of each item and its difficulty index score.
- ❧ The Pearson correlation coefficient was significant at  $r = 0.703$ .
- ❧ There was a significant correlation between the judges' estimates of each item and the difficulty index observed from students' scores.

# RESULTS



## Exam 2

- Exam 2 was slightly easier by 2.9%.
- cut-off score was adjusted and changed to 62.9%.
- There was no failure in this exam.
- However, some students' results were changed.
- Out of 101 students, one student's result was changed from **A to B**, three were changed from **B to C** and three from **C to D**.



# CONCLUSION



- ❧ All exams should be evaluated before being given to students to certify that the cut-off score is credible and defensible.
- ❧ Slight deviations from the accepted cut-off score can definitely affect the students' results.

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Thank you

