

# Learning methods assessment in anatomical landmarks identification on panoramic radiograph

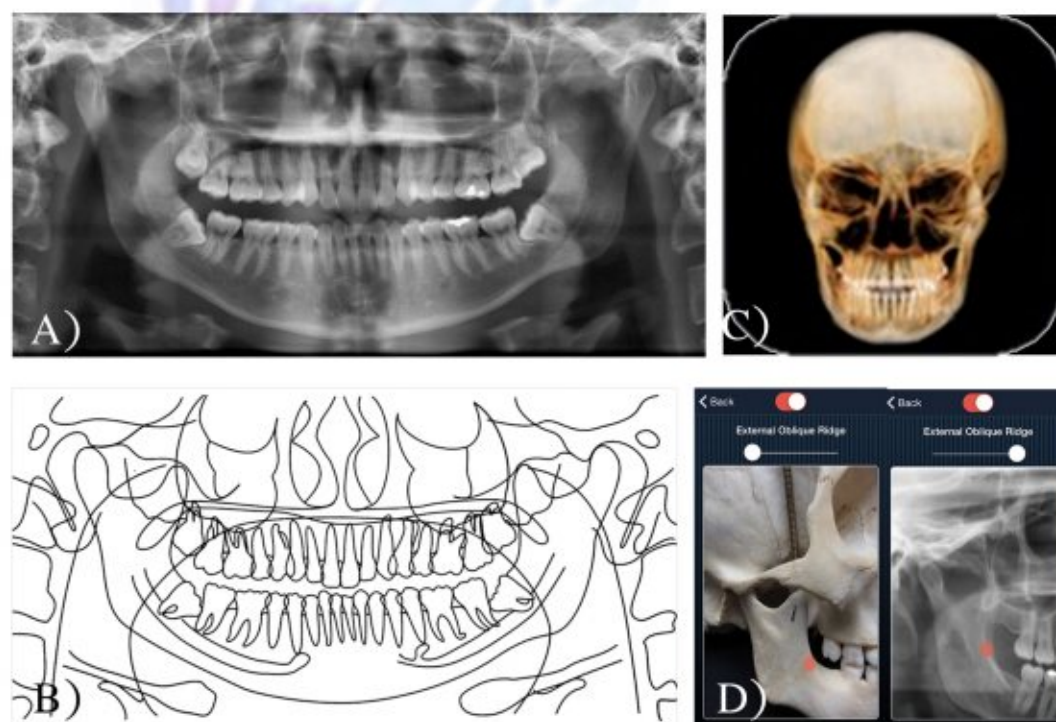


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## Background

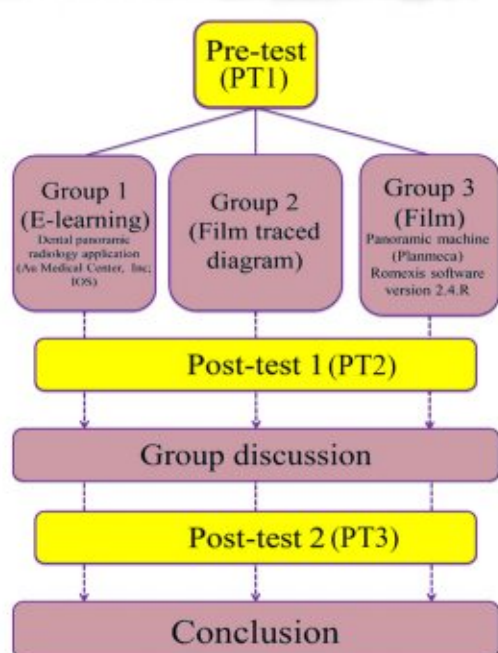
Panoramic radiograph is an important resource when diagnosing lesions of the maxillofacial structures. However, incompetence in radiographic interpretation has been found among dental students and this may lead to patient management errors and unfavorable treatment outcomes.

The objective of this study is to assess the most effective learning method for panoramic radiograph interpretation and to evaluate whether group discussion would enhance the student's interpretation skill in daily practice.



A) The chosen panoramic radiograph C) Dental panoramic radiology application  
B) Film traced diagram D) Demonstration of the application

## Materials and methods



## Expected Benefit

To enhance the educational system regarding dental radiology by assess the most effective learning method of panoramic radiograph interpretation.

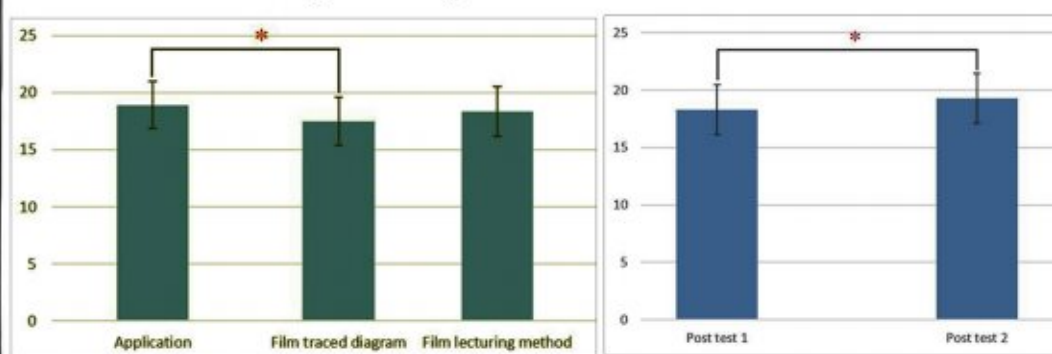
## Data Analysis

Descriptive statistic, one-way ANOVA and paired t-test were used to analyze the data (SPSS version 22). Statistical significance will be assumed when the p-values are less than 0.05.

**Key word:** Application, Dental education, Diagram, Lecture, Panoramic radiograph

## Results

The baseline score (PT1) of all students show no different. The PT2 score was statistically significantly higher after learning with E-learning group (mean=18.92 ±2.04) and Lecturing methods group (mean=18.34 ±2.20) compared to the panoramic diagram group (mean=17.51 ±2.12). There was no statistically difference between the E-learning group and Lecturing methods group. PT3 was taken after attend Group discussion, the score was a significant difference between PT2 and PT3 (p=0.00). The mean of PT2 and PT3 were 18.27 ±2.18 and 19.27 ±2.19 respectively.



## Conclusion

E-learning and lecturing method have shown to be the effective learning method which can enhance the students' understanding of anatomical landmarks identification. These results also suggest that group discussion can further increase the students' landmark identification skill, which will be relevant to making a precise diagnosis.

