After completing this course, the participant will have:
1. An appreciation for the long-term status of a specific palatal surface fixed retainer used to maintain maxillary midline diastema closure.
2. An awareness of how the shear bond strength of metal and ceramic brackets bonded to irradiated enamel can be affected by that irradiation.
3. A knowledge about 3 radiographic analyses for diagnosing clinical crossbite.
4. An understanding of the relative accuracy of 5 different interocclusal recording materials for articulating digital models.

**Article 1: Long-term bonded retention after closure of maxillary midline diastema**, by Allen H. Moffitt et al

1. The objectives of this study were to evaluate fixed bonded palatal surface retainers between the maxillary central incisors that were placed to maintain midline diastema closure and record their longevity, proclivity for damage, and periodontal health of the central incisors in patients 5 or more years after treatment.
   - True
   - False

2. For the periodontal evaluations, a split-mouth design was used to compare each index evaluation of the maxillary central incisors with the average scores obtained from the control teeth.
   - True
   - False

3. The authors reported a 20% chance in the sample for damage to the fixed retainer during any year that the device was in place.
   - True
   - False

4. The authors reported that, on average in this sample, a bonded fixed retainer palatal to the maxillary central incisors lasted for 17 years.
   - True
   - False

**Article 2: Physical and adhesive properties of dental enamel after radiotherapy and bonding metal and ceramic brackets**, by Gabriela Cristina Santin et al

5. The aim of this study was to evaluate tooth enamel that had experienced bonding and debonding before and after irradiation of metal and ceramic brackets.
   - True
   - False

6. The sample comprised 100 bovine teeth, with half irradiated and the other half not irradiated.
   - True
   - False

7. The authors reported that the resin tags formed at the composite resin-enamel interface were more extensive and deeper in the non-irradiated group.
   - True
   - False

8. The authors concluded that irradiated enamel exhibited lower tensile strength when subjected to microshear test.
   - True
   - False
Article 3: Cone-beam computed tomography transverse analyses. Part 2: Measures of performance, by R. Matthew Miner et al

9. The aim of this study was to compare the predictability of the cone-beam transverse, jugale, and transpalatal width measurement analysis in identifying clinical crossbite.
   True
   False

10. The sample comprised subjects with molar Class I relationships; 54 had posterior crossbite relationships and were the experimental group, and 79 had no posterior crossbite relationships and were the control group.
   True
   False

11. The authors reported that the transpalatal width measurement analysis was not a good predictor of crossbite and tended to under-diagnose crossbite.
   True
   False

12. The authors concluded that the cone-beam transverse analysis was the least accurate method for diagnostic crossbite.
   True
   False

Article 4: Comparison of 5 types of interocclusal recording materials on the accuracy of articulation of digital models, by Sunya Sweeney et al

13. The aim of the study was to compare the accuracy of different interocclusal record materials used to articulate both digital models and stone casts.
   True
   False

14. Twenty-five interocclusal records for each of the 5 interocclusal recording materials comprised the study’s sample.
   True
   False

15. The authors reported that most interarch measurements on the digital models were significantly different from the gold standard measurements regardless of the bite registration material used.
   True
   False

16. The authors concluded that polyvinyl siloxane is a less accurate interocclusal recording material than the other tested materials when used to articulate digital models.
   True
   False