

## Comparison of Leeway Space Predictions Using Moyers and Tanaka-Johnston Upper Jaw and Lower Jaw on Batak Tribe Between Male and Female in Elementary School Students in Medan City, Sumatera Utara, Indonesia: A Cross-sectional Study

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**Abstract :** Objective: The study aims to compare Leeway space averages between Moyers and Tanaka-Johnston's analysis of elementary school students from the Batak tribe in Medan City. Material and Methods: The study involved 106 students from the Batak tribe elementary school in Medan, comprising 53 male and 53 female students. The samples obtained were then printed on both jaws to obtain a working model, and the mesiodistal width of the four permanent biting teeth of the lower jaw and the amount of space available on the canine-premolar region, as well as the predicted mesiodistal number of the canine-premolar on the Moyers probability table with a 75% degree of confidence and the Tanaka-Johnston formula. Results: Using Moyers analysis, students at Batak Elementary School in Medan City have an average Leeway space value of 2 mm on the upper jaw and 2.78 mm on the lower jaw. The average Leeway spatial value using Tanaka-Johnston analysis in the Batak tribe in elementary school in Medan City is 1.33 mm on the top jaw and 2.39 mm on the bottom jaw. Conclusion: According to Moyers and Tanaka-Johnston's analysis of both the upper and lower jaws in elementary school students of the Batak tribe in Medan City, there is a significant difference between Leeway's average space.

**Keywords :** leeways space, batak tribe, genders, diagnosis

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