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The Angle Orthodontist: Vol. 64, No. 1, pp. 23–30.

Interobserver and intraobserver agreement of clinical orthodontic judgments based on intraoral and extraoral photographs

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ABSTRACT

The purpose of this study was to calculate the agreement between and within observers for orthodontic judgments based on intraoral and extraoral photographs at two separate occasions in ten twin pairs. Eighteen variables were scored by two orthodontic students according to well-defined rating scales. Interobserver and intraobserver proportion of agreement as well as the agreement which could be expected only by chance and the remaining agreement beyond chance were calculated. The calculated agreement beyond chance was not significant ($\alpha=0.05\%$) for middle and upper facial height, anterior apical area in lower jaw and posterior apical area in both jaws within the first observer and for upper facial height within the second observer. Interobserver reliability was not acceptable at the 5% level for judging asymmetry, facial animation, posterior apical area in the upper and lower jaws, sagittal lip position and the upper facial height. Lower facial height, sagittal lip position and middle apical area in the lower jaw agreed significantly at this level for only one interobserver comparison.

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KEY WORDS: Orthodontics, Clinical judgments, Photographs, Interobserver agreement, Intraobserver agreement.