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Background: Proper evaluation and analysis of color distribution of shade guides is important to achieve clinically acceptable color matches in everyday dentistry. Therefore, the aim of our study was to determinate the color of natural teeth in selected population group and compare it with the color distribution of three different commercially available shade guides. Methods and materials: The color of maxillary central incisors (n=235) was measured using intraoral spectrophotometer ShadePilotTM (Degu Dent, Germany), in the middle third of the labial surface in patients from age range 18-69 years. Color values of natural teeth and shade tabs from the shade guides Vita Classical, Ivodar chromascop and Vita3D Master were recorded according to CIE Lab color space. Descriptive statistic and t-test were used to determine whether the color differences seen in the samples were statistically different. Results: The range of values for the parameters of the natural tooth color were for L*60.04-81.21 for a* 0.88 - 8.54, b* 10.37-26.26. All attributes of the maxillary central incisor displayed a broader range than those from the shade guides. The 1-sample t test revealed a significant difference (P<.001) between means of color ranges for all values. Conclusion: There are shades in natural teeth that can't be compared to either shade tab and in order to select the best match for a restoration we need to make compromise for finding the lowest color difference. Beside the subjectivity of the visual methods in color determination in dentistry mismatches also can originate from the selected shade guide.

## PP.042. COMPARISON OF TRIOS INTRA ORAL DIGITAL IMPRESSION SYSTEMS

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This study aims to evaluate the precision and accuracy of 3Shape Trios intra oral scanner systems. To this end, an edentulous mandibular model equipped with 6 implant analogues was scanned 10 times by 3 intra oral scanners (3Shape), after scanbodies were placed on implant abutments. The data was converted into STL format. Additionally, the model was scanned with an industrial scanner (Atos Core 80) to form the control group. The data obtained from the scanners and were evaluated on three dimensional comparison software on surface bases. Kruskal Wallis test was employed for the comparison of the non-parametric groups, while Mann Whitney-U test was utilized for the assessment of the relationships between groups differing from each other. Intra-class correlation coefficient (ICC) as calculated for the analysis of errors related to the method employed for parametric measurements. The significance was found to be p<0,05. When the devices were put in order in accordance with superimposition values, Atos Core 80 was found to be more precise when compared to the intra oral scanners. Evaluated with the same criteria, Trios Color Pod by 3Shape was found 30,9 µm, Trios Color CART by 3Shape was found 40,3 µm and Trios MonoColor CART by 3Shape was found 43,0 µm.