COMMENTARY

SHADE GUIDE OPTIMIZATION—A NOVEL SHADE ARRANGEMENT PRINCIPLE FOR BOTH CERAMIC AND COMPOSITE SHADE GUIDES WHEN IDENTIFYING COMPOSITE TEST OBJECTS

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Ideally, dental shade guides should match the color range and distribution of natural teeth. In addition, they should be logically arranged and user friendly so clinicians and laboratory technicians can successfully match shades. The authors have written an informative paper on the use of shade guides in shade matching of composites. They have shown that a custom-made composite shade guide was more accurate than the VITA Vitapan Classical shade guide for shade matching 12 shades of Filtek Supreme XT (3M ESPE). They also showed that rearrangement of the tabs according to CIEDE2000 value within hue group reduced the time needed to make a shade match.

Over the years, several composite manufacturers have provided shade guides made of their composite and some have even made the guides batch specific. Such shade guides are expensive to make and may change color during use and when sterilized. Of course, dentists can make their own custom shade guides, particularly for often-selected shades. Perhaps composite manufacturers could provide convenient silicone rubber anterior and posterior tooth molds to assist with this process.

The VITA Vitapan Classical shade guide is gradually being replaced by the VITA Toothguide 3D-MASTER Shade Guide. Recently, an alternative arrangement of the 3D-MASTER, VITA Linearguide 3D-MASTER, has become available. There is even a bleaching shade guide, VITA Bleachedguide 3D-MASTER.

Research to improve the accuracy and ease of use of shade guides is ongoing. As discussed by Paravina,¹ coverage error (CE) is a convenient and simple method for evaluation of how well a dental shade guide matches the color of human teeth. With this parameter, the smaller the CE, the better the chances of selecting an appropriate match. CE should be interpreted through the comparison with a 50:50% acceptability threshold—the color difference that is acceptable for 50% of observers.

REFERENCE

1. Paravina RD. Critical appraisal-color in dentistry: improving the odds of correct shade selection. J Esthet Restor Dent 2009;21:202-8.

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