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## The influence of the accommodation function on the color and color density of lens

Jung Un Jang

Eulji University, South Korea

This study is to investigate the effect of the color and the color density of lens on change of the accommodation functions. A total of 31 university students were selected who had no history of eye injuries and who were not taking any medications. Also, none of the schoolchildren had any eye diseases, strabismus or amblyopia that may affect the visual acuity and refractive status. We measured accommodative amplitude used add the minus lens test. Positive and negative relative accommodation also accommodation of lag unfused measured cross cylinder and fused cross cylinder were determined by a phoropter (DU-7000) with auto chart projector (CCP-3100; Huvitz) at 40 cm. Monocular and binocular accommodative facility was measured with a  $\pm 2.00$  D flipper. All tests were measured without color lens and with the color (gray, blue, brown) and the color density (50%, 80%) of lens is changed. As a result, no significant difference between OU, OD and OS so it was used for the analysis based on the OU. The NRA/PRA and the accommodative facility were when students wearing the color lens increased more than those wearing the no color lens. In particular, the accommodative facility was when students wearing the color density (50%) of lens and color of gray were the highest. When the color and color density was combined, the accommodative amplitude, lag, facility and NRA/PRA increased. Therefore, we know that color lens will be applied to the eye glasses of persons needed alternately the distant and the near vision in field of sports, driving and learning.

## **Biography**

Jung Un Jang is a Professor of the Graduate School of Optometry, Eulji University, South Korea. She is also In-charge of Joint Master Degree of Clinical Optometry, Marshall B Ketchum University (Southern California College of Optometry) and Eulji University. She has served as a Reviewer for the *Journal of Ophthalmic and Vision Research, Clinical Ophthalmology, Clinical Optometry and also the Korean Journal of Vision Science*. She has published more than 20 papers in reputed journals and has been serving as an Editorial Board Member of *The Korean Society of Vision Science and The Open Ophthalmology Journal*.

jju@eulji.ac.kr

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