any case of new-onset amblyopia. Hwang and Lee,[3] correspondingly, reported no cases of new-onset amblyopia among 110 consecutive esotropia patients managed with prismatic correction.

Conflict of interest

The authors declare no conflict of interest.

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Sir,
Comment on 'The Eye Phone Study: reliability and accuracy of assessing Snellen visual acuity using smartphone technology'

I read with interest the article 'The eye phone study: reliability and accuracy of assessing Snellen visual acuity using smartphone technology'.[1] Even though the results are interesting, I have a few concerns and comments. I do not agree with authors that Snellen chart is engrained into physicians worldwide as the 'standard' of measuring visual acuity (VA). In fact, international standardization describe chart design recommendations such as line size progression, number of letters per line, and so on.[2,3] The Snellen chart fails a lot of these recommendations, therefore professionals should consider to use standardized charts previously validated as the ETDRS, the new gold standard in clinical practice.[4]

I am not sure why authors use the equation of Figure 1, which is reflected in their paper. This would give a correct result if the tangent had been computed in degrees but not in radians how they denote by the '*c*' letter. I believe that would be better to use an equation derived from the standard definition of VA.

VA is the inverse of the minimal angle which subtend the detail of an optotype in minutes of arc (α'). Optotype size (h) is computed by means of replacing the VA in the equation (1) by the Snellen ratio with the consideration that the optotype is built based on a grid of five times the detail ($h/5$).

$$VA = \frac{1}{\alpha'}; \quad \tan(60\text{ś}\alpha') = \frac{h/5}{d}; \quad h = 5 \cdot d \cdot \tan\left(\frac{1}{60 \cdot VA}\right) \qquad (1)$$

Equation (1) is the derived equation from the standard definition of VA for computing the optotype size.

I find it very interesting that authors found only 3 of 11 applications that had a measured optotype size within the 10% of necessary dimensions. This is probably because developers have not drawn vector optotypes by means of programming language and they have designed a bitmap image scaled depending on the size of the screen. In fact, I have tried 'Snellen' app on an iPhone 6 and the error rate is around 14% and not 4.4% as on iPhone 4.

To develop 'responsive visual acuity apps' adapted to all screens is not complicated with tablets or mobile phones if the developer draws a vector optotype that changes with the pixels per inch retrieved from the device. Mobile phones are not the best option for testing vision at distance, tablet devices have higher field of view that offers the possibility to increase presentation distance to minimize accommodation. Another advantage of tablet and mobile devices is the possibility to develop automated tests that will improve the reproducibility of the current charts.[5]

Conflict of interest

The author declares no conflict of interest.

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