

The Relationship between Character Size Preference and Reading Performance for People with Low Vision

-- Are Their Choices Reasonable? --

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Objectives

Basic Research on Large Print for low vision students.

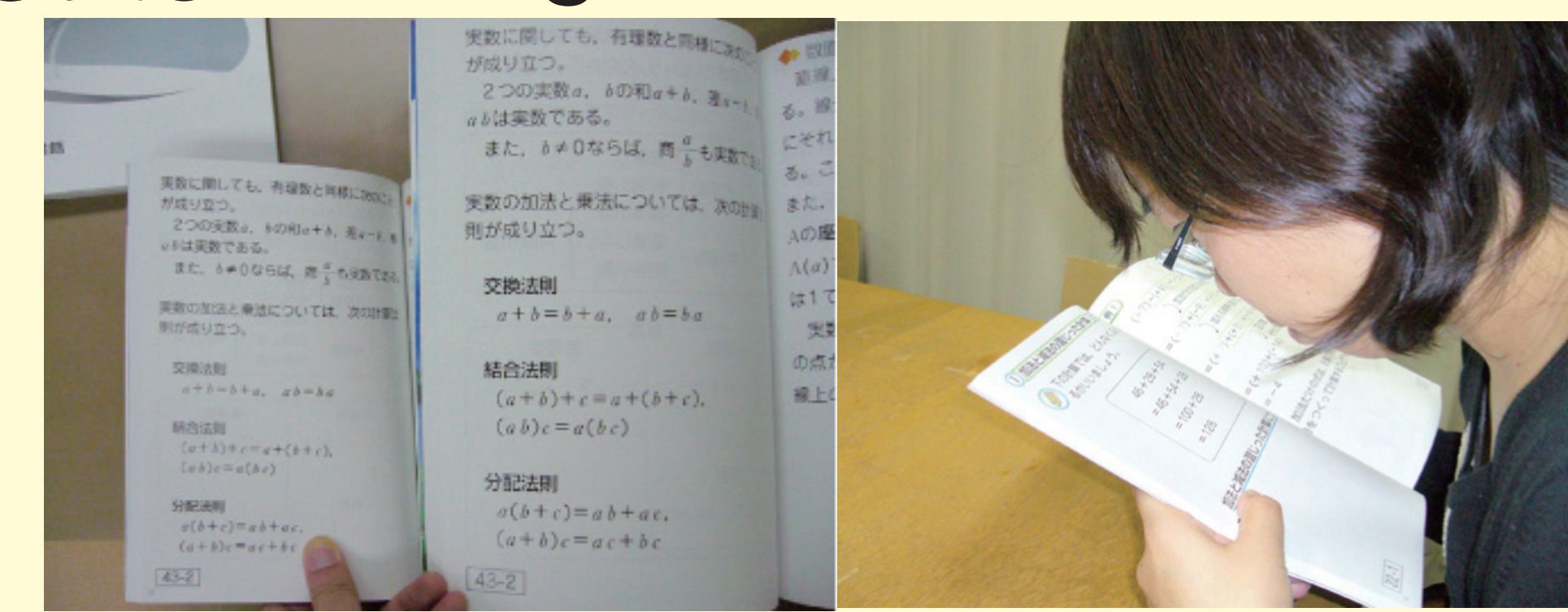
Do people with low vision chose the optimal character size for their own visual performance? And, does the character size lead to the best reading performance? The aim of this study was to clarify the relationship between the character size preferred by people with low vision and their reading performance.

Methods

Comparison between Preferred Character Size and Reading Performance

<Large Print Textbook>

1. Interviews were conducted with regard to their PCS and large print.
2. Visual acuity was measured with the logMAR near acuity charts.
3. Reading performance was measured with the MNREAD-J charts.

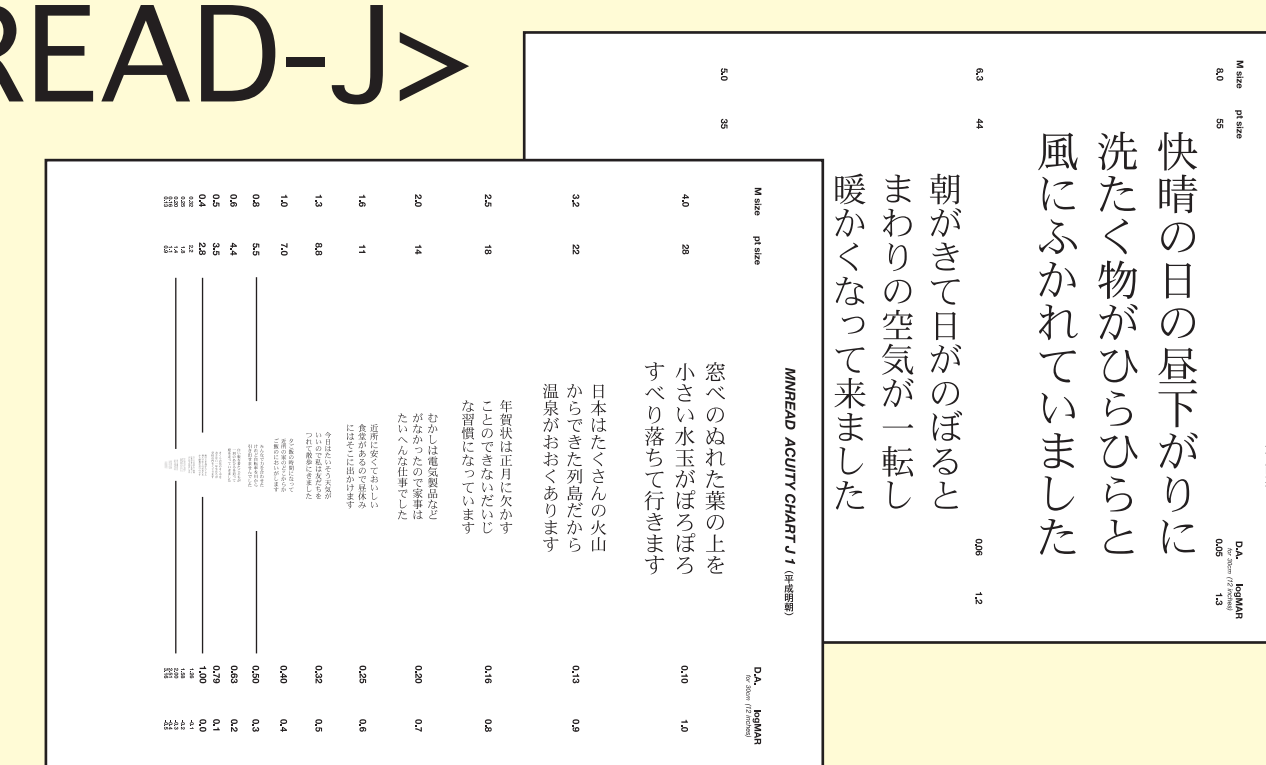


a) Standard testing: Measurement was conducted at 30cm.

b) Changing Viewing Distance: The distance between charts and a participant could be adjusted so that he/she could read the charts at his/her preferred distance.

• Participants were 78 high school students with low vision.

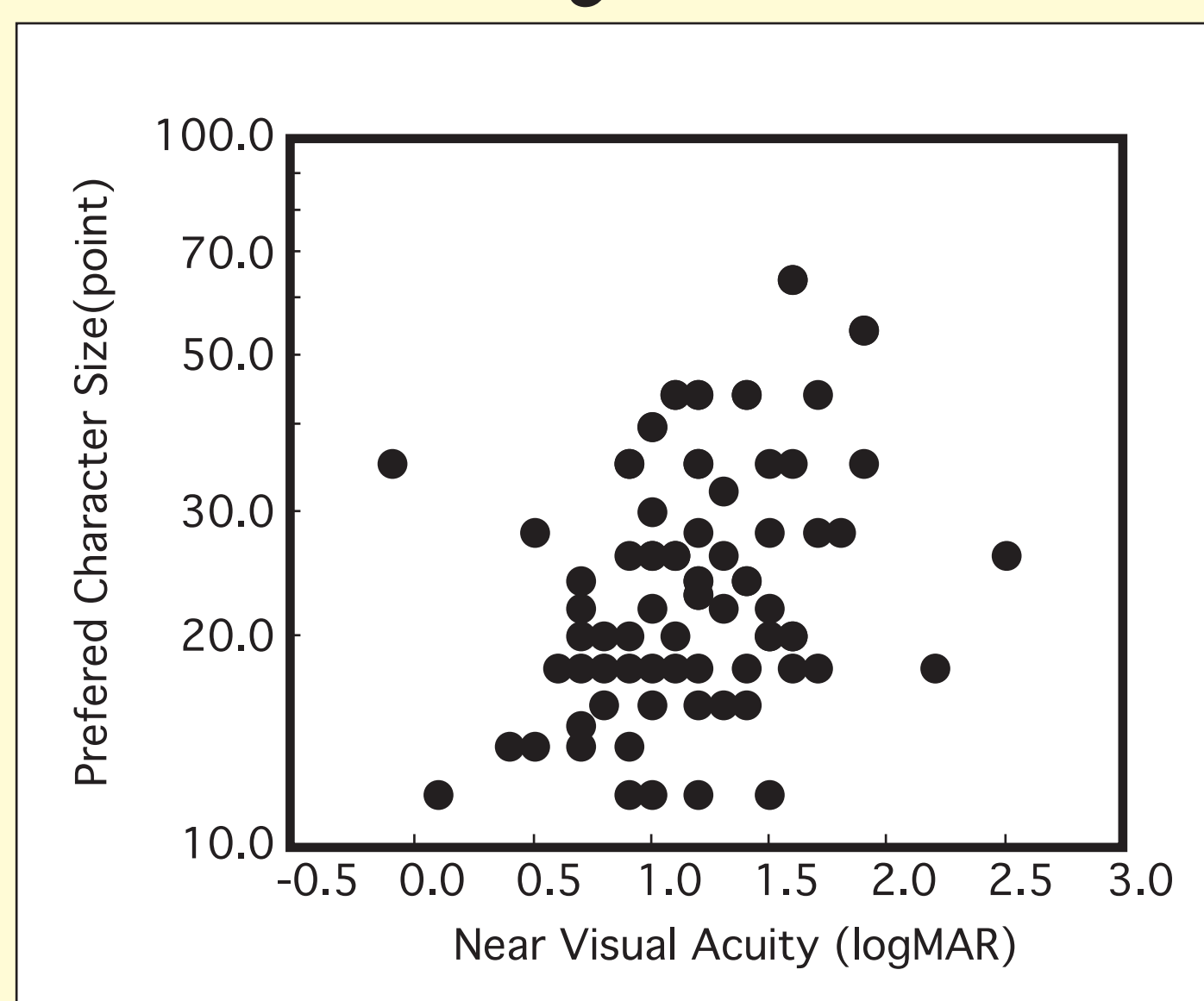
<MNREAD-J>



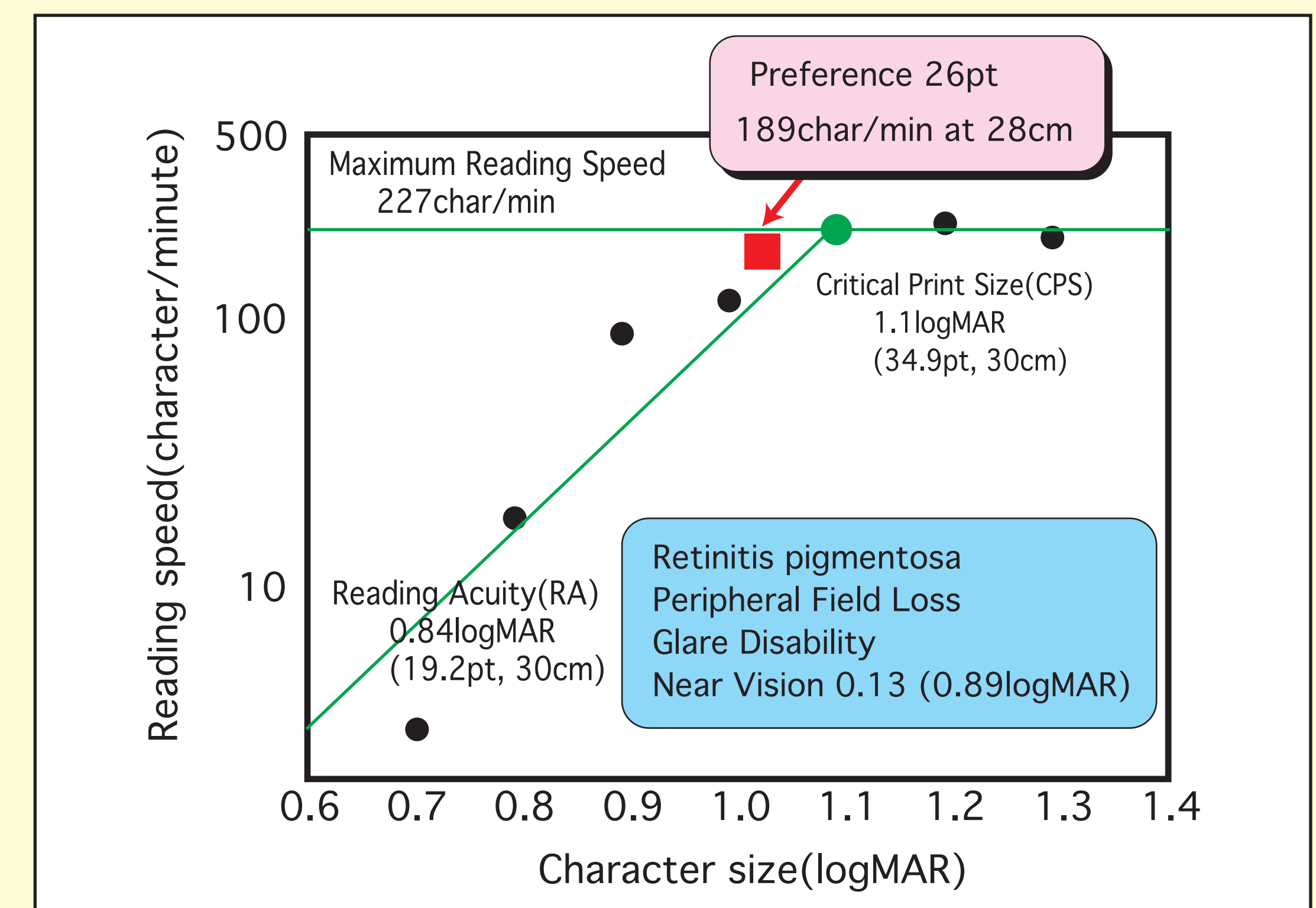
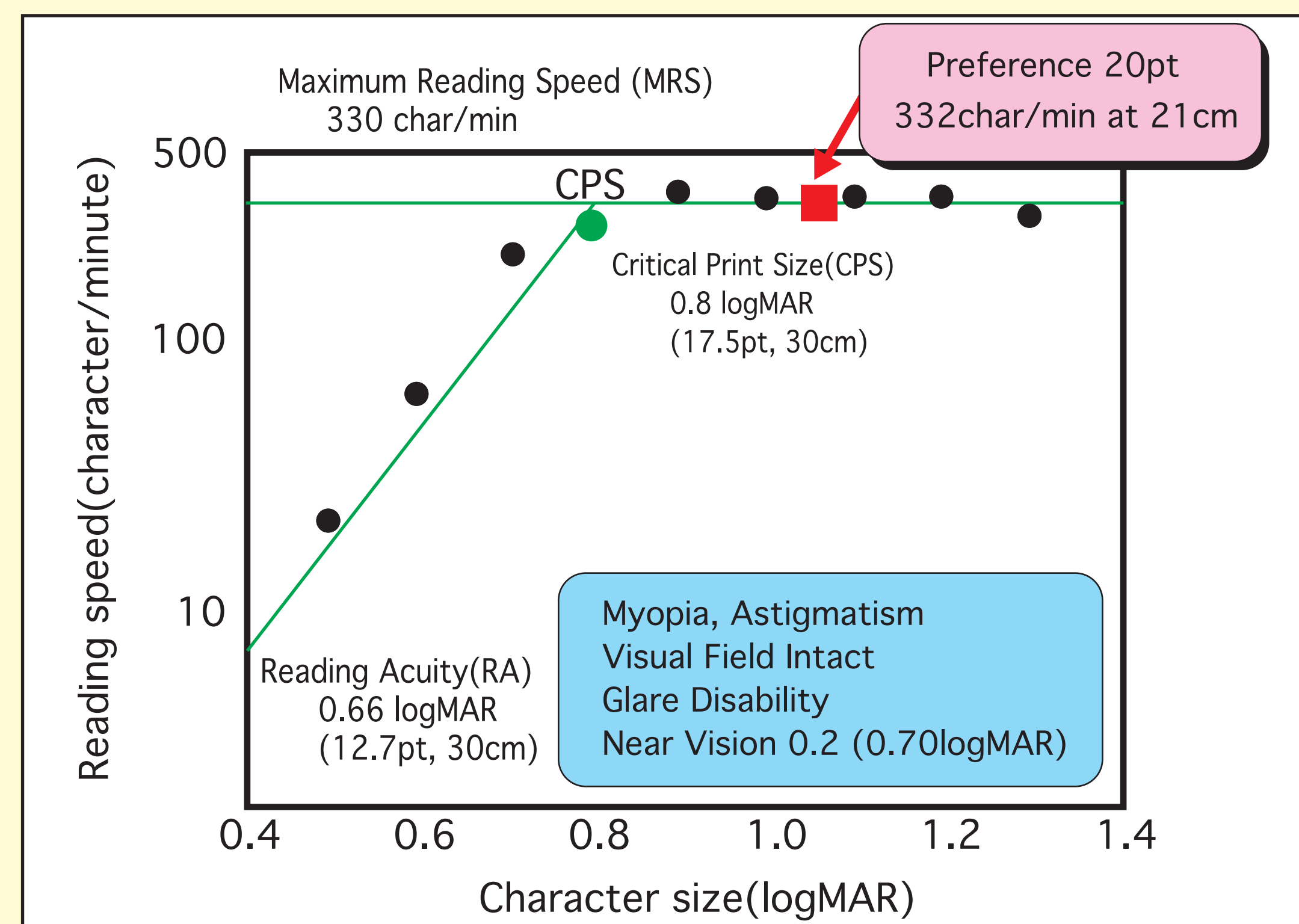
Results

2) Typical Result of MNREAD Performance and Reading Speed of PCS

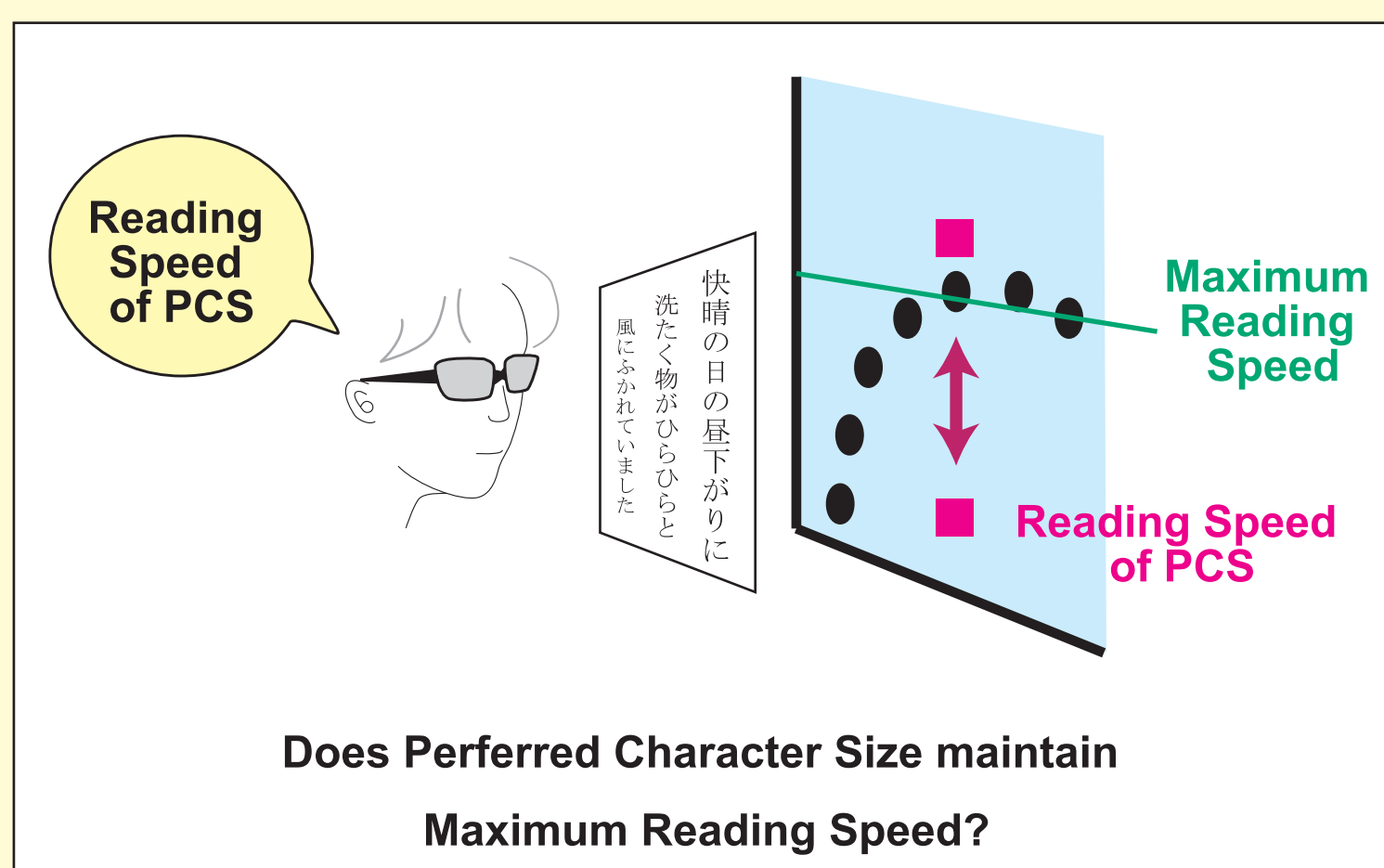
1) Relationship between Visual Acuity and PCS



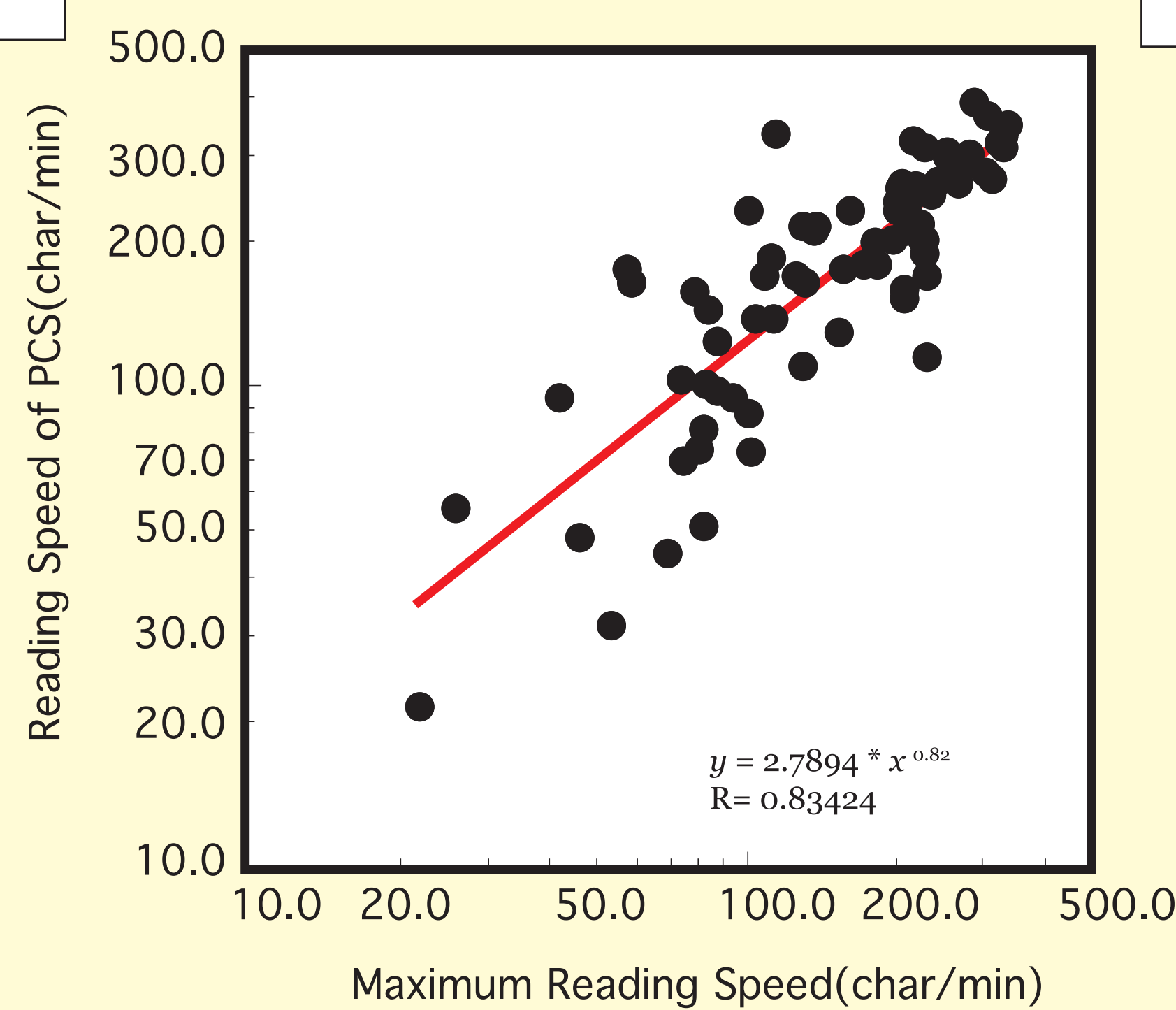
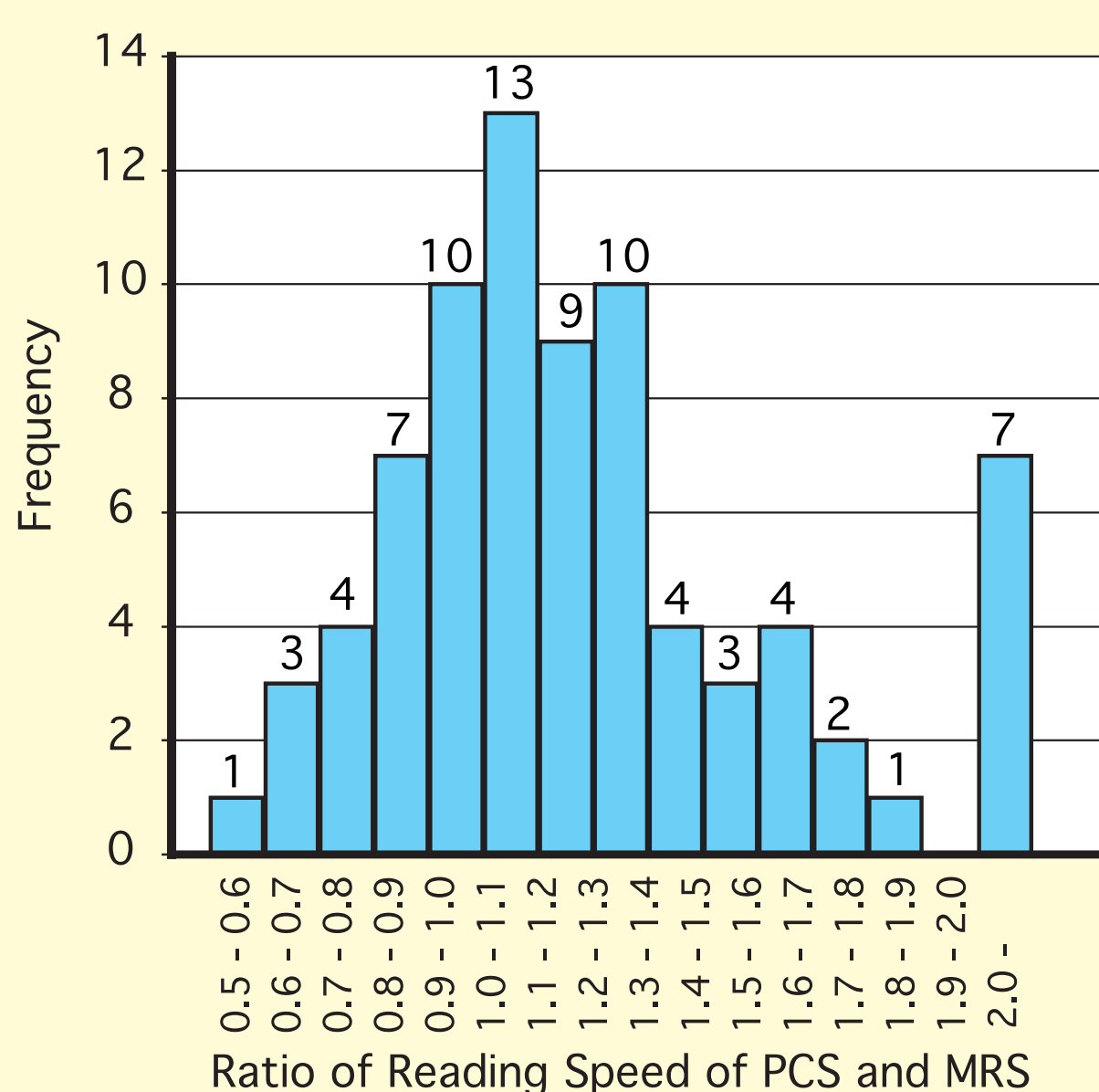
There were no correlation.



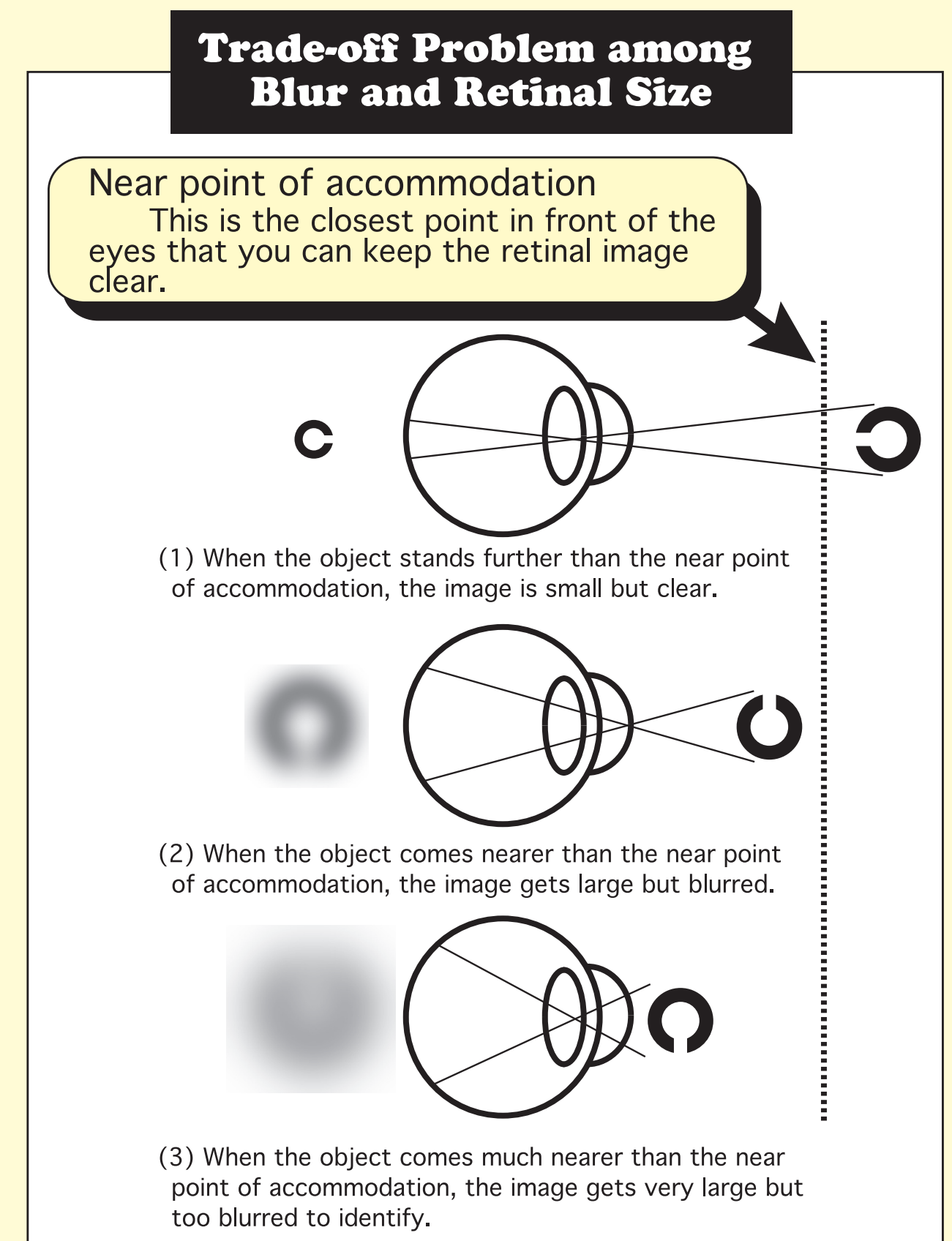
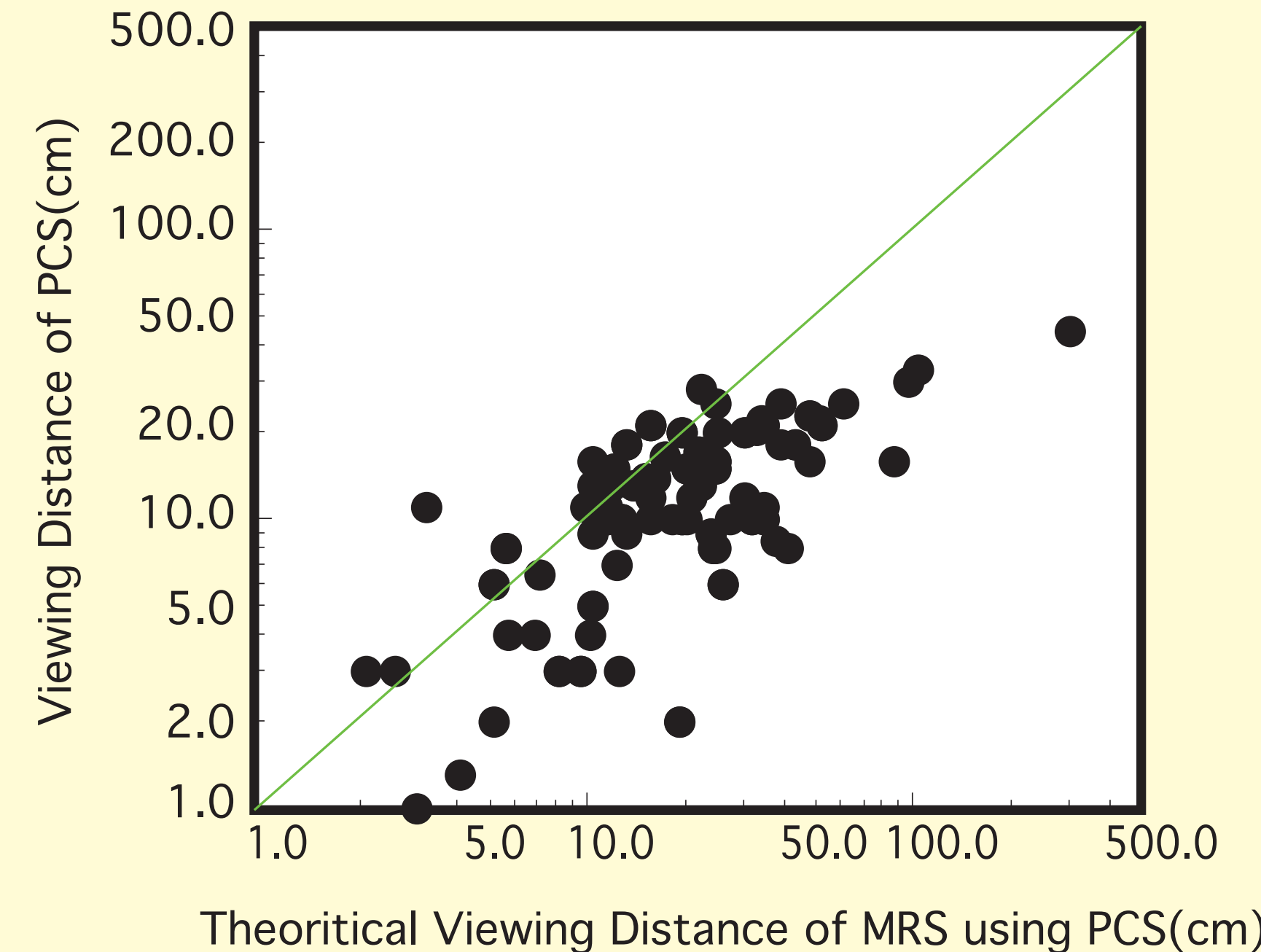
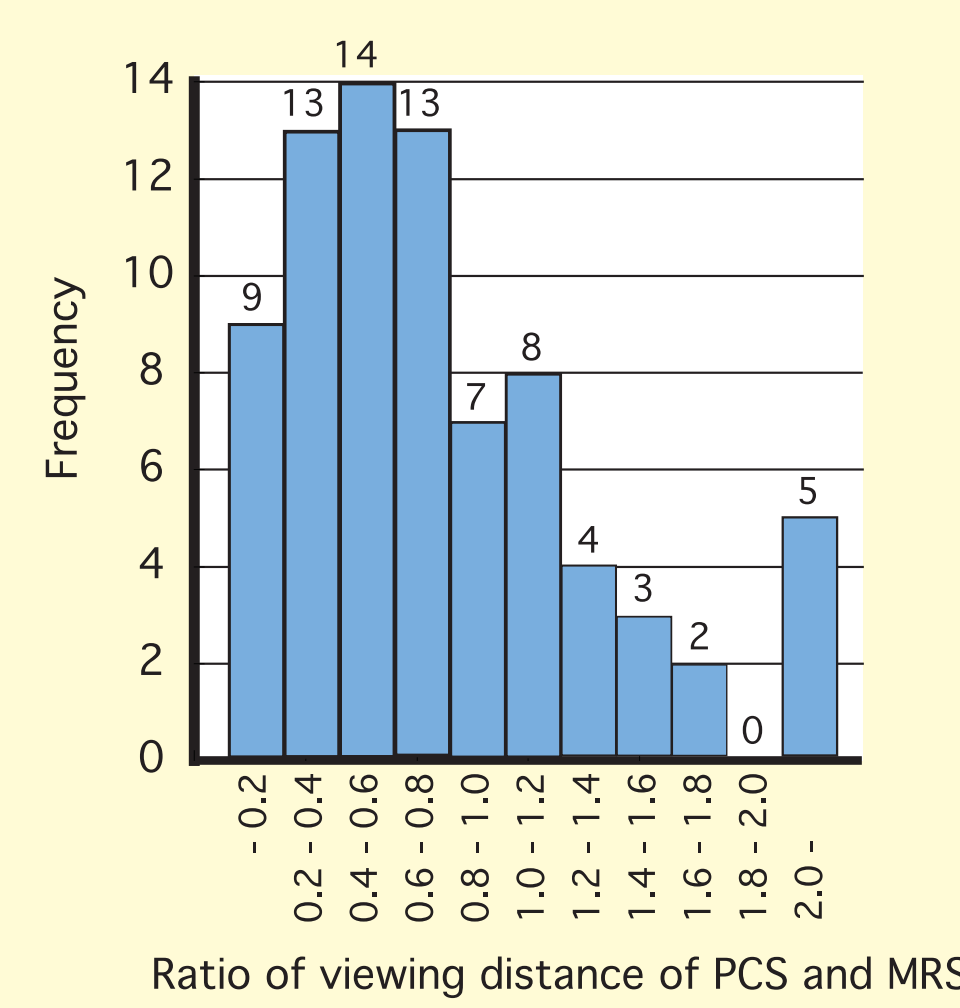
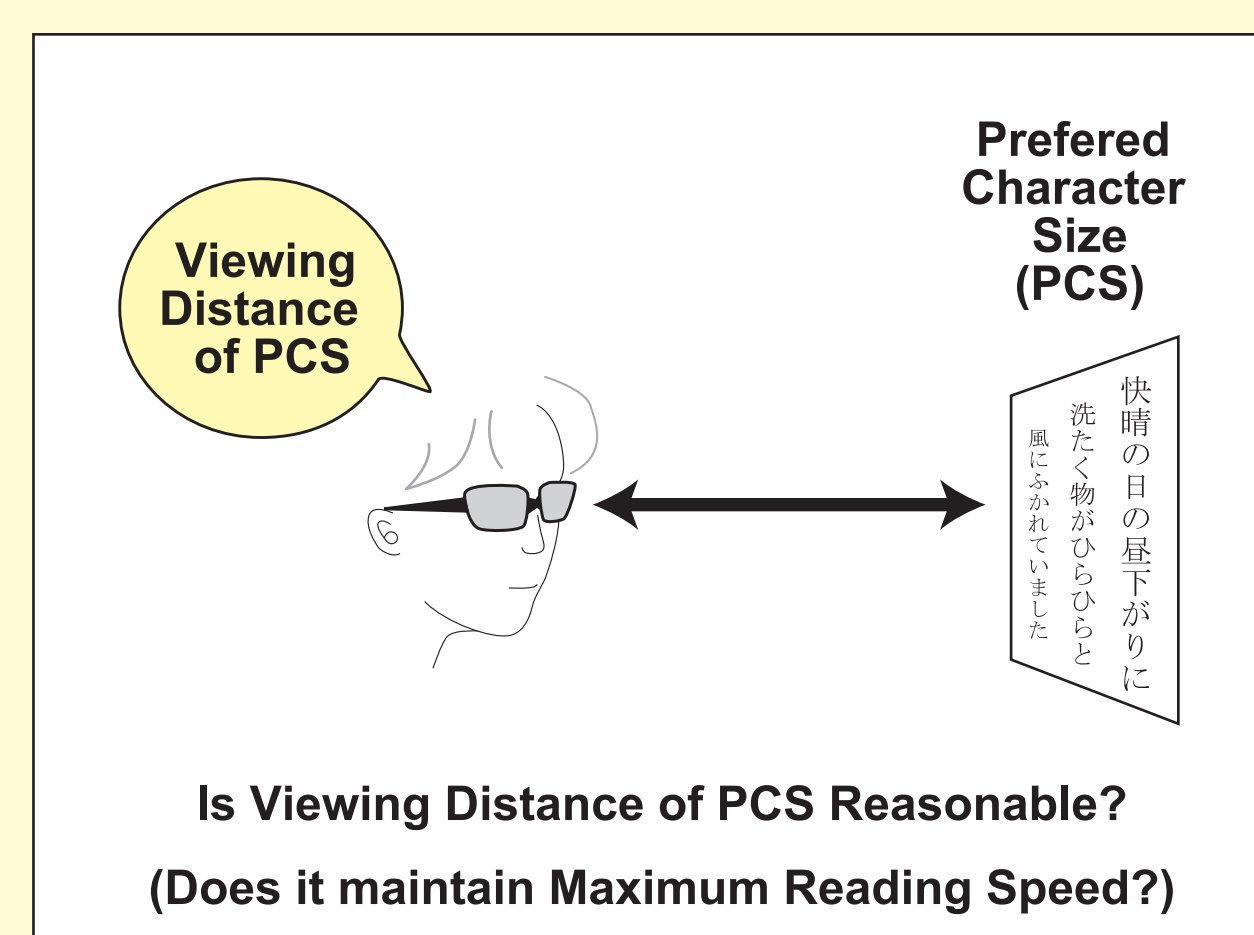
3) Analysis of Reading Speed



There were strong correlation between maximum reading speed and reading speeds of PCS.



4) Analysis of Viewing Distance



a) Viewing distances of PCS tended to be closer than MRS.
b) Low vision students gave priority to retinal size.

Conclusions

Low Vision Students are able to reasonably select a character size based on preference alone when it is possible to adjust the viewing distance, but their preferred character size tends to be larger than their critical print size.