

M.A. O'BRIEN, W.A. ROGERS, A.D. FISK. Does prior experience mitigate age-related differences in interactions with a Kindle electronic book reader? *Gerontechnology* 2010;9(2):235; doi:10.4017/gt.2010.09.02.260.00

Purpose In 2006, the International Standards Organization published the first standard for everyday products created for diverse users. The ISO20282-1 standard prescribed that designers should identify the knowledge of target users¹. This prescription follows research findings suggesting prior knowledge can facilitate acquisition of related knowledge². In addition, higher levels of general technology experience among older adults may mitigate age-related performance differences in technology use³. In this study, we examined performance differences on the Kindle⁴ for younger adults and older adults with similar levels of general technology experience. **Method** Participants were 12 older adults (aged 65-75 years) with similar technology experience to 12 younger adults, college undergraduates (aged 18-28 years). Specific experience with the Kindle and other electronic book readers was low, but participants in both groups had recent, high experience reading articles and books on the Web. Video-recorded observations were made as participants completed three novice tasks on the Kindle. They were asked to perform the tasks as they normally would while interacting with a new everyday technology, but to also think aloud as they tried to figure out the correct steps without assistance. **Results & Discussion** Younger adults were significantly faster than older adults on all tasks⁵. Optimal performance (i.e. task completion without error or intervention) was low for both groups. However, successful performance (i.e. ultimately achieved the goal) was similar across age groups with minor differences (*Table 1*). These findings suggest that prior experience in both groups facilitated acquisition of Kindle-specific knowledge through completion of the first task. Optimal performance was more challenging, however, as prior knowledge was insufficient to identify exactly how controls were accessed (i.e. on a menu or stand alone buttons). Video recordings must be further examined to identify the reasons for age-related differences.

References

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Table 1. Participant success on Kindle tasks

Task	Number at success level	Younger adults (n=12)	Older adults (n=12)
Go to cover	Optimal	3	0
	Successful	8	11
	Partial	1	1
Bookmark/text size	Optimal	0	1
	Successful	12	11
	Partial	0	0
Add note	Optimal	0	1
	Successful	12	9
	Partial	0	2