The Effect of Paper, Electronic, and Audio-Electronic Reading Modalities on Reading Comprehension in Adults Aged 60 and Above

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This study investigated how paper (PRM), electronic (ERM), and audio-electronic (AERM) reading modalities affected reading comprehension in adults age 60 and older. It was hypothesized that AERM would be the most effective. A similar study by Thomas (2016) on adolescents found that scores were highest with electronic formats and students incorrectly perceived PRM as the best learning style fit. Adults age 60+ were recruited from local community and independent-living facilities. All participants received a reading passage with comprehension questions, each on a different reading modality, followed by a demographic survey. The highest score was achieved with PRM, second highest with ERM and lowest with AERM. The difference between modality scores was significant ($p<0.05$). 84.6% of participants who performed best on ERM or equally on PRM and ERM held at least 4 years of college and were still working or recently retired. 76.2% of participants scoring highest on PRM had four years of college and were retired longer. Unlike adolescents, adults more accurately perceived PRM as best fitting their learning style. However, of these participants only 68.3% indicated PRM as the preferred modality for receiving information, suggesting that PRM is not viewed as a valid modality for receiving information in today's "digital age." Results suggest higher education and length of workforce exposure are factors in older adults' ability to maintain brain plasticity and adapt to changing technology. Future research could investigate possible interventions for improving brain plasticity in seniors to increase reading comprehension with electronic media.

Awards Won:
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