The Cognitive and Health Benefits of Reading and Lifelong Learning: An Inspiration Report

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INFO-287 The Hyperlinked Library

[https://www.brailleinstitute.org/library/]

Objective

To provide the Braille Institute Library with peer reviewed evidence supporting the value of lifelong learning for elderly populations. This information is to be used in designing new programming to not only address the learning needs of the community but to foster a broader culture of learning within the library and the community it serves.

Executive Summary & Introduction

The Braille Institute Library serves the reading disabled community in Southern California. This is a very large service area, covering ten counties encompassing approximately 55,000 square miles. And “reading disabled”, as outlined by the National Library Service for the Blind and Print Disabled (NLS), does not only describe people living with vision impairment or total blindness, but also includes individuals living with cognitive and physical impairments as well. The Braille Institute Library, with the support

of NLS, has been faithfully serving this very large, very diverse community for over 100 years.

Throughout the 20th century and now through the early years of the 21st, services and technologies have been developed to address the community's diverse and complex needs. We offer a variety of adaptive technologies, which provide different avenues of access to our resources.

Elderly individuals who have developed a visual impairment or total blindness late in life are, by far, the largest demographic the Braille Institute Library serves. For many, this is associated with a general loss of independence and is a significant upheaval of familiar habits and routines. Former avid readers struggle with their favorite hobby. And non-readers and readers alike find it more and more difficult to stay connected to their interests and community. Almost daily, we hear from patrons, their families, and friends, about the ways our services have improved their quality of life. Many have described our service as a "life saver".

The purpose of this report is to provide the staff at the Braille Institute Library as well as the staff at the Braille Institute as a whole with peer-reviewed research describing the cognitive benefits of reading and the impact cognitive activity has on aging populations' health and quality of life. This is meant to bolster the work already being done. Underlining, with evidence, the lifesaving aspect of what we do. It is also part of an ongoing Library Re-Imagined project. The information provided here is to be used in developing new programs and services for the library, designed to promote, explicitly, the importance and value of lifelong learning. The report will conclude with proposals for services and programming.

Literature Review

The following articles are points of entry, highlighting areas for further research and exploration. The topics covered are broadly divided into three related but different areas of focus. The first will focus on the value of reading. The second will focus more generally on the value of cognitive activity. The third will focus on different approaches to and the value of learning.

Reading

The results of Chang, Wu, & Hsiung's (2021) *Reading Activity Prevents Long-Term Decline in Cognitive Function in Older People: Evidence from a 14-year Longitudinal*

Study are summarized nice and succinctly in its title. Using a representative sample of 1,962 Taiwanese people, aged 64 and older, researchers compared reported reading activity to the results of a cognitive evaluation, the Short Portable Mental Status Questionnaire. Re-evaluations occurred at 6, 10, and then finally, at 14 years.

In each evaluation, higher reading activity was associated with higher cognitive abilities. Results varied slightly in the earlier follow-ups, with education level playing a significant role. At the 14-year follow up, higher reading levels were associated with higher cognitive test results across all education levels.

Cognitive Activity

Litwin, Schwartz, & Damri's (2017) *Cognitively Stimulating Leisure Activity and Subsequent Cognitive Function: A SHARE-based analysis* uses the results of a secondary analysis of data collected on participants aged 65 and older in the Survey of Health, Aging and Retirement in Europe (SHARE) to examine if cognitively stimulating leisure activity (CSLA) reduces levels of cognitive decline. As defined in the study, this activity includes reading, attending lectures, and participating in social groups.

This study shows a positive relationship between CSLA and cognitive functioning, regardless of age or education level. Meaning, it is never too late to start. Actively engaging with CSLA can have real benefits regardless of your age or education level.

Arenaza-Urquijo et al.'s (2017) *Distinct Effects of Late Adulthood Cognitive and Physical Activities on Gray Matter Volume* looks at the physical evidence. Through evaluating MRI scans of 45 participants, average age 72, their work shows physical and cognitively stimulating activities can reduce brain atrophy later in life. For cognitively stimulating activities specifically, the results were significant regardless of education level or prior interest in cognitively stimulating activity.

Styles and Value of Learning

Boulton-Lewis' (2010) *Education and Learning for the Elderly: Why, How, What* provides an extensive overview of the various reasons and ways the elderly pursue lifelong learning. Though the specifics of what is being learned and the methods of education vary, the learning habits of the elderly, unsurprisingly, mirror those of younger age groups. Inspiration often comes from necessity. Even if the elderly find themselves learning to adjust to health changes and age-related disruptions to normal activity, unlike younger age groups whose education is often more directly related to a job

pursuit or a future oriented goal, they still find significant value in learning for learnings sake.

Zaid et al.'s (2022) *Learning Elements for Digital Literacy among Elderly: A Scoping Review* cites 15 studies, identifying different methods of teaching older populations, between 53 and 92, how to use modern computer technologies. Effective methods include problem solving, peer tutoring, intergenerational learning, play, creative self-expression, and casual engagement with social platforms.

Wurm, Schäfer, & Lucas' (2022) *Gain- But Not Loss-Related Self-Perceptions of Aging Predict Mortality Over a Period of 23 years: A Multidimensional Approach* explores the differences between loss and gain learning styles. In the former, the focus is on preserving as best as possible for as long as possible a current status quo in the face of steady decline. In the latter, the focus shifts to what can be gained, despite whatever losses might be occurring throughout the aging process. While the loss-related learning was not shown to have a negative effect on mortality rates, their work does show that self-perception of aging and mortality rates do improve when individuals adopt a gain-focused approach.

Proposals for Programming and Services

Kits, similar to the Reminiscence and Caregiver Kits described by Sally Inglett and promoted by the American Library Association, would be a great addition to the Braille Institute Library's collection. Rather than standard print material, these could contain pre-loaded audio cartridges, including material on a variety of subjects. These could be themed around language learning, providing instructional books alongside low-level reading material, such as popular children's literature and poetry. Or a classics kit, including well-known, beloved works of literature. History sets, covering different historical eras. The possibilities are endless. And because of our book duplication process, it would be very easy to quickly develop and adapt new kits according to feedback and our communities' changing needs.

The Library can design in-person and remote workshops centered around aging, similar to the Glendale Public Library's Solo Aging: Monthly Learning and Support Workshop. These could be re-designed specifically for community members who are experiencing late in life vision loss. They could be a space for group interaction and discussion, where people could share their experiences and learn how to navigate a new reality together.

Specialists could be invited to speak, guide discussions, and lead group education sessions on the latest adaptive technologies.

The Library can form partnerships with local museums and cultural institutions, similar to the Discover & Go program available through public libraries. Programming could be designed around exploring and discussing specific exhibits and shows, like book clubs but for art and music. We can prompt our patrons to move outside of their comfort zones and engage with new experiences.

Conclusion

The Braille Institute Library already plays a vital role in the daily lives of the community it serves. By studying the cognitive and health benefits associated with lifelong learning, the library will be better equipped to expand its services even further.

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