

Mental Stimulation and Lifelong Learning Activities in the 55+ Population

**Elderhostel, Inc.
February, 2007**



Executive Summary

1. There are four “lifelong learning” segments in the 55+ population in the United States, including *Focused Mental Achievers* (13% of the population), *Contented Recreational Learners* (34 %), *Anxious Searchers* (23%), and *Isolated Homebodies* (18%), and one segment, the *Pessimists* (11.0%), with minimal participation in lifelong learning because of poor health or scant resources.
2. *Focused Mental Achievers* and *Contented Recreational Learners*, comprising together 47% of the 55+ population, are characterized by extraordinarily high levels of activity, high levels of formal education, and high measures of optimism and life satisfaction.
3. Elderhostel participants fall overwhelmingly into the *Focused Mental Achiever* (49%) and *Contented Recreational Learner* (35%) segments.
4. Elderhostel participants are involved in a wide range of activities in addition to educational travel. Many of these activities combine two or more of the following elements: mental stimulation, social engagement, physical activity, and creative expression.
5. The notion of “use it or lose it” in connection with brain health is widely believed by the general public to be true and is gaining increasing support from the scientific community. A wide array of games and other regimens have emerged purporting to provide “mental exercise” and all but promising to prevent brain decay and, by implication, Alzheimer’s disease and other forms of senile dementia.
6. This research supports a broader and more nuanced restatement of the “use it or lose it” proposition: that a commitment to lifelong learning and a “balanced program of brain exercise” involving activities blending mental stimulation, social

engagement, physical activity, and creative expression is a promising and ultimately more satisfying path to “successful aging” and possibly to long-term brain health.

Introduction

For 32 years Elderhostel has had the privilege of serving a group of perhaps the most extraordinary older Americans in our nation's history. These people, though certainly blessed by circumstances, are almost impossibly hale, hearty, curious and tenacious, and often active into their eighth, ninth and even 10th decades; they've redefined what it means to be old in our society. Before this generation made its impact, the phrase "successful aging" probably didn't exist; Elderhostelers and their ilk not only have given society permission to imagine "successful aging" as more than an oxymoron; they stand as an inspiration to succeeding generations as they in turn approach retirement age.

This research grew out of a desire to better understand Elderhostelers by studying how they're different from other older people and, thereby, to offer guidance to Baby Boomers and others on how to age with equal success by following in their footsteps. "Successful aging" has many dimensions, and there are many habits and behaviors widely accepted to contribute to longevity, including regular exercise, refraining from smoking and maintaining a balanced, low-calorie diet. Because the benefits of these behaviors are no longer seriously debated, and because all Elderhostelers share a love of learning, this research focuses instead on behaviors that provide learning or, more broadly, mental stimulation. Because successful aging goes well beyond simply achieving longevity and entails embracing life with a certain élan, this research focuses on how these learning behaviors might relate to measures of optimism and life satisfaction.

In 1975 — the year Elderhostel was founded — society's image of older or retired people was on the cusp of a major transformation. Only five years before, in 1970, social activist Maggie Kuhn had founded the Gray Panthers in part to confront the image that older people were frail and useless. Songs like the Beatles' "When I'm Sixty-Four" or Simon and Garfunkel's "Old Friends/Bookends," with its line "How terribly strange to be

seventy?” reflected the prevailing attitude that older people were either quaint and slightly comical or grouchy and opinionated.

What was really happening in the lives of older people, of course, was very different from these outmoded perceptions. Where work in previous generations had been physically debilitating toil, an increasing portion of Americans retiring in the 1970s were knowledge workers — well-educated, mentally stimulated, healthy and far from “used up” when they reached retirement age. Furthermore, blessed by increases in the real value of Social Security benefits, generous and secure defined-benefits pensions, and habits of thrift learned the hard way during the Great Depression, members of this generation had the means to enjoy and even indulge themselves once they stopped working. Suddenly — for the first time in history — a huge number of Americans were experiencing an entirely new life stage marked by health, wealth and leisure that might, if one was lucky, last 20 years or more. Elderhostel came along at exactly the right time to serve the needs of those in this generation who had a passion for lifelong learning and, to some extent, to become emblematic of this new active, involved life stage.

Now, 30-some years later, the largest and most self-aware generation in American history — the 78 million Baby Boomers born between 1946 and 1964 who once vowed never to trust anyone over 30 — is approaching traditional retirement age. The press is full of hyperbole about how the Baby Boomers will radically reinvent retirement. While the truth of this prediction remains to be seen, what’s too often overlooked is that the *parents* of the Baby Boomers were the true revolutionaries.

What’s certainly true about the Baby Boomers is that the sheer magnitude of their generation is bound to make the next period of the American social experience different in expected and unexpected ways. The United States Census Bureau projects a dramatic increase in the number of resident Americans aged 65 and older in the coming decades; even the Bureau’s “moderate” scenario forecasts a 116% increase in the next 45 years,

from 36.2 million in 2005 to 78.9 million in 2050.¹ The major force driving this increase is the aging of the Baby Boomer generation; the first Baby Boomers turned 60 in 2006, and each day in 2006 another 7,918 Baby Boomers — 330 each hour — reached that milestone age.²

It's no wonder then that Alzheimer's disease — a modern scourge of aging first diagnosed 100 years ago — is very much on the minds of aging Americans. A recent survey released by the MetLife Foundation found Alzheimer's disease second only to cancer on the list of most feared illnesses, and first on the list for Americans 55 years and older.

Pharmaceutical researchers are working hard to develop treatments for Alzheimer's disease. For the average American, however, there's a widespread notion verging on folk wisdom that, when it comes to maintaining cognitive health, "use it or lose it" is the relevant watch phrase. Indeed, 85% of respondents in our national panel agree or somewhat agree with the statement: "If you don't continue to use your mind as you age, you will be more likely to suffer from memory loss, dementia, or Alzheimer's [disease]."

Psychologists and neuro-scientists are divided on the validity of the "use it or lose it" assertion, though even those experts who are highly skeptical that the research has proven the hypothesis support the recommendation that everyone should seek mental stimulation on the grounds that it can't hurt and may indeed help.³ Based on our long

¹ "Population Projections of the United States by Age, Sex, Race, and Hispanic Origin: 1995 to 2050," U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, February, 1996

² "Oldest Baby Boomers Turn 60!," U.S. Census Bureau, Public Information Office (CB06-FFSE.01-2), January 3, 2006

³ In a recent overview of research on this question Professor Timothy Salthouse of the University of Virginia concluded that "there is little evidence that differential engagement in mentally stimulating activities alters the rate of mental aging... Although my professional opinion is that at the present time the mental-exercise hypothesis is more of an optimistic hope than an empirical reality, my personal recommendation is that people should behave as if it were true. That is, people should continue to engage in mentally stimulating activities because even if there is not yet evidence that it has beneficial effects in slowing the rate of age-related decline in cognitive functioning, there is no evidence that it has any harmful effects, the activities enjoyable and thus may contribute to a higher quality of life, and engagement in

observation of literally millions of older Americans who are extraordinarily mentally active (that is, Elderhostel participants), we at Elderhostel tend to believe the “use it or lose it” proposition. Our purpose with this research is not to add weight to one or another side of the debate around whether an assertion widely believed to be true is in fact proven by science; rather, fueled by our original desire to better understand what made Elderhostelers different, it is to further our collective understanding of the lifelong learning landscape, get a better handle on what it means to be a lifelong learner and, if possible, take some lessons from those inquiring individuals who have joyfully embraced a lifelong-learning “lifestyle.” In short, we hope the results of this research can help lead people to richer, more engaged, and happier lives; if at the same time embracing the lifelong-learning “lifestyle” can also help people prevent or delay the onset of senile dementia or Alzheimer’s disease, so much the better.

Some of the questions we had been asking ourselves before we undertook this research included:

- How widespread are mentally stimulating activities and the practice of lifelong learning in the population aged 55 and older? What activities do people in this age group believe provide mental stimulation?
- To what extent does active engagement in lifelong learning correlate with psychological measures of optimism, life satisfaction, (self-reported) health, and demographic factors?
- Can the 55+ population be segmented in a meaningful way based on engagement in mentally stimulating activities, psychological measures, and demographics?

cognitively demanding activities serves as an existence proof—if you can still do it, then you know that you have not yet lost it.” Timothy A. Salthouse, “Mental Exercise and Mental Aging: Evaluating the Validity of the ‘Use It or Lose It’ Hypothesis,” *Perspectives on Psychological Science*, Vol. 1, No. 1, March 2006

- What if anything beneficial can be learned from those in the population most actively engaged in lifelong learning?

Methodology

This project began with a broad perspective designed to understand the activities and attitudes of a national sample of Americans 55 and older. Only after this broad context was established were the activities and attitudes of Elderhostel participants put under the microscope.

Focus Groups: Developing a List of Mentally Stimulating Activities

A series of 15 focus groups were conducted in October 2005, in Waltham, Mass., Columbus, Ohio, and Encino, Calif., to begin to understand the range of activities older adults consider to provide mental stimulation or to belong under the heading “lifelong learning.” The focus groups were conducted among adults age 50 and older and were screened based on respondents’ gender, employment status and overall number of activities engaged in during a typical week, with the goal of including both “active” and “inactive” adults. Focus group comments and responses were analyzed and a list of various activities, attitudes about aging and staying healthy, and other concerns were noted for a follow-up survey.

Quantitative Survey of National 55+ Sample

The survey asked respondents not only about activities, but also for self-reported measures of physical health, information about demographic status, and six different well-established psychological scales to measure optimism, life outlook and other dimensions. The scales included:

- **Life Orientation Test – Revised.** This test is designed to measure individual differences in optimism versus pessimism. The revised version was used.⁴

⁴ <http://www.psy.miami.edu/faculty/ccarver/sciLOT-R.html>

- **Satisfaction with Life Scale.** The “brief” version of this scale was used to measure individual life satisfaction.⁵
- **Sense of Control Scale.** This short scale is designed to measure beliefs about how well an individual feels in control of the environment around him or her, and about the constraints they face.⁶
- **PANAS.** A word scale designed to describe positive and negative feelings and emotions.
- **CES-D.** A self-reported depression indications scale.⁷
- **Psychological Well-Being Scales.** These scales, used by permission from the author, measure six different dimensions of psychological well-being.⁸

The final survey was sent to a national sample of adults, age 55+, who were currently panel members of Knowledge Networks,⁹ a highly representative sampling of the consumer population in general that includes both Web and non-Web households.¹⁰ A total of 1,283 responses were received from panel members, representing approximately 75% response rates across age segments.

In addition, the final survey was sent to a sample of Elderhostel participants (individuals who have participated in an Elderhostel program in the past 12 months). A total of 2,311 responses were received from this group, representing approximately 22%

⁵ <http://www.psych.uiuc.edu/~ediener/hottopic/hottopic.html>

⁶ <http://www.brandeis.edu/projects/lifespan/MIDISense-of-Control-Scales.pdf>

⁷ <http://patienteducation.stanford.edu/research/cesd10.pdf>

⁸ Ryff, Carol, University of Wisconsin, Institute on Aging, Madison, WI

⁹ We employed Knowledge Networks KnowledgePanelSM survey tool which combines true probability sampling (RDD) and the Internet’s advantages as a research medium to incorporate the views and opinions of all Americans not susceptible to the “professional respondent” problem and other hazards of “opt in” online panels.

¹⁰ <http://www.knowledgenetworks.com/sb/index.html>

response. Questionnaires for both the Knowledge Network and Elderhostel panels were completed on the Knowledge Networks Web site. For non-e-mail Elderhostel households, a paper questionnaire was mailed along with a postage-paid return envelope. Completed questionnaires were sent directly to Knowledge Networks.

Analysis and Segmentation

Knowledge Networks performed all coding, data entry and data file cleaning and did the initial statistical analysis to determine segments.¹¹ Segments were based entirely on analysis of the Knowledge Networks panel (i.e. non-Elderhostel) responses since this was a random sample of the targeted U.S. adult population. Once the segments were identified, Elderhostel respondents also were classified into these segments. Segments were named by Elderhostel.

Anecdotal Survey to Elderhostel Participants

Finally, after the national panel segment distribution was compared to the Elderhostel segment distribution, an additional qualitative step was added. Elderhostel participants, prompted by an e-mail message, were invited to submit detailed descriptions of their lifelong learning or mentally stimulating activities, and approximately 335 such essays were submitted. These essays were keyword-coded and otherwise mined to gain a better understanding of the lifelong-learning “lifestyle” of this group of older Americans.

The Focus Groups

The purpose of the 15 focus groups — made up of older Americans screened for moderate to high levels of involvement in lifelong learning — was to gain a qualitative perspective on how older adults talk about the role of lifelong learning in their lives and to capture the breadth of activities which they define as “lifelong learning” or which they

¹¹ The segments were derived using latent class analysis, a statistical process similar to cluster analysis which is used for finding subtypes of related cases from multivariate categorical data.

saw as providing mental stimulation, and to use the results to construct the quantitative survey instrument.

Participants in these groups — sometimes unaided and other times after prompting by the moderator — voiced almost unanimous agreement with the “use it or lose it” hypothesis. These comments typified the attitude of most focus group participants:

“If you experience someone who doesn’t do anything, no hobbies, anything, they will just die at a young age. My mother was a vegetable and didn’t do anything. My father read every day and lived to a very old age.”

“Learning is critically important in daily activities. You have to learn and stretch. If you don’t learn, you waste away.”

“You want to wear out, not rust out.”

Focus group participants also mentioned a surprisingly broad range of activities in which they were involved and which they believe provided mental stimulation or constituted lifelong learning. These activities went well beyond anticipated intellectual or academic pursuits, such as serious reading, participation in book clubs or participation in Lifelong Learning Institutes, to include activities as diverse as quilting and choir participation. We derived many of the “activity” questions in the Knowledge Networks survey from the list compiled in the focus groups (See Figure 1).

Activities Mentioned in Focus Groups		
• Reading	• Cycling	• Swimming
• Volunteering	• Consulting	• Exercise
• Writing	• Travel	• 'Net Surfing
• Diving	• Golf	• Orienteering
• Hiking	• Motorcycles	• Yard Work
• Walking	• Weight Lifting	• Carving
• Carpentry	• Computer Graphics	• Woodworking
• Remodeling	• Photography	• Music
• Camping	• Sports	• Art
• Card Games	• Crafts	• Kids / Grandkids
• Friends	• Lectures / Classes	• Family
• Investing	• Genealogy	• Fishing

Activities Mentioned in Focus Groups		
<ul style="list-style-type: none"> • Cooking • Horse Racing • Languages • RVs • Skating • Dancing • Magic • Flying • Collecting 	<ul style="list-style-type: none"> • Gardening • Movies • Teaching • Quilting • Sailing / Boating • Chess • Jewelry-Making • Choir 	<ul style="list-style-type: none"> • Puzzles • Shopping • Oils / Watercolors • Sewing / Knitting • Hunting • Coaching • Theater • Acting

Figure 1

The Five Lifelong Learning Segments

We analyzed the multivariate data from our quantitative survey to create segments based on mental stimulation or lifelong-learning activities, various psychological measures, and demographics. The segmentation analysis yielded five distinct segments, ranging in size from 11.0% to 34.0% of the 55+ population. We then studied the segments carefully to create descriptive names for these segments (see Figure 2).

The first two segments, including *Focused Mental Achievers* and *Contented Recreational Learners*, together represent a group of older Americans who are very active, committed and self-sufficient when it comes to mental stimulation and lifelong learning.

The next two segments, including *Anxious Searchers* and *Isolated Homebodies*, make up a group that is engaged only modestly in mental stimulation and lifelong learning. Individuals in these segments we believe would benefit from more active engagement.

The last segment — *Pessimists* — includes individuals who are relatively poor, pessimists. While we believe everyone can benefit from a life of rich mental

engagement, people in this group are more focused on basic issues of survival and are likely to be difficult to engage in lifelong learning.

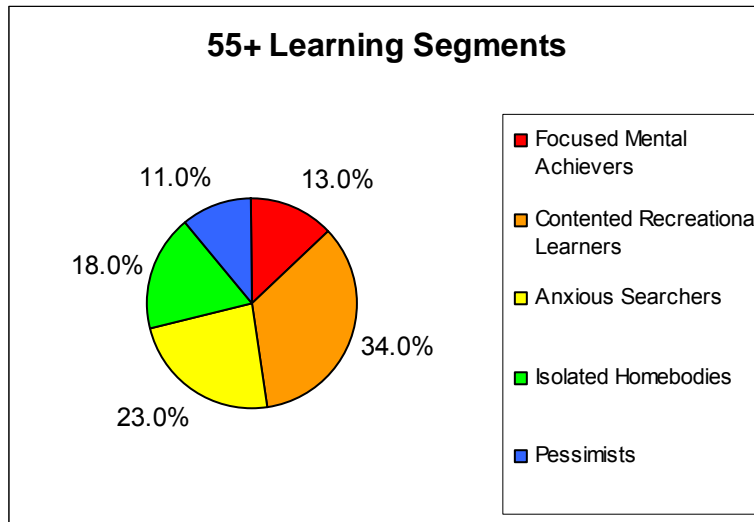


Figure 2

Focused Mental Achievers

Focused Mental Achievers (13.0% of the surveyed 55+ U.S. population) are thirsty for learning of almost every imaginable kind, outpacing all other segments in participation in almost every activity. They're especially drawn to challenging academic pursuits; on a once-a-month-or-more basis 14.1% study a foreign language (more than four times the rate of any other segment), and 65.7% read nonfiction books. At a rate more than double any other segment they participate in the following activities on a once-a-month-or-more basis: reading classical or literary novels (43.5%), astronomy (13.8%), listening to books on tape (17.3%), and genealogy (18.0%). Several activities especially popular with *Focused Mental Achievers* are both intellectually stimulating and socially rewarding; 29.4% attend a class in person once a month a more, and 10.8% participate in a book club once a month or more. *Focused Mental Achievers* on average participate in 17.6 of the surveyed activities weekly. The average age of *Focused Mental Achievers* is 65.1 years.

Focused Mental Achievers are also oriented toward their communities, giving while also receiving a social benefit in return: 31.6% volunteer for a community-sponsored activity, 26.2% serve as nonpaid members of the board of a charitable or volunteer organization (more than twice the rate of any other segment), and 20.0% volunteer time to teach, either as a coach, a mentor, a literacy instructor or in some other capacity.

They're also disproportionately drawn to both experiencing culture and creating their own cultural experiences; on a once-a-week-or-more basis 66.5% watch PBS television programs, 14.4% play a musical instrument, 46.3% write, and once a month or more 41.1% visit museums, libraries or art exhibits.

Focused Mental Achievers are physically active: on a once-a-month-or-more basis, 20.8% dance, 22.4% participate in group aerobic exercise, 35.0% lift weights, 20.8% run. Some of their activities blend physical activity with social, intellectual or creative activities. Seven percent (more than three times any other group) participate once a month or more in acting, drama or community-based theater.

Focused Mental Achievers are interested in seeing and experiencing the broader world, as well as seeking mental stimulation and lifelong learning closer to home. More than half (53.8%) hold a valid passport, and 69.3% have traveled overnight in the past five years to attend a class, seminar or learning event. They are undaunted (only 9.0% strongly agreed with the statement "I don't like to fly right now") and ready to go (45.4% strongly agreed that "If I wanted to, I could easily find time to schedule a two-week trip somewhere").

Focused Mental Achievers are optimistic (with a 117 optimism index against the national sample) and satisfied with life (115 index). Meanwhile, 66.5% strongly self identify as "true life-long learners." Two thirds (66.8%) know someone who is suffering from dementia or Alzheimer's; 92.1% agree or strongly agree with the statement: "If you

don't continue to use your mind as you age, you will be more likely to suffer from memory loss, dementia, or Alzheimer's [disease]."

Not surprisingly, *Focused Mental Achievers* are highly educated and relatively healthy: 52.9% graduated from college or more; 59.4% self reported "very good" or "excellent" health, and 54.0% exercise three or more times per week.

Contented Recreational Learners

Contented Recreational Learners (34.0% of 55+ U.S. population) are as optimistic (117 index) and satisfied (112 index) as *Focused Mental Achievers*, but only 43.1% strongly characterize themselves as "true life-long learners." Their interest in academic pursuits is distinct but moderate: on a once-a-month-or-more basis, 1.7% of *Contented Recreational Learners* study a foreign language, 37.4% read nonfiction books, and 5.5% listen to lectures, seminars or classes on tape. Interest in activities that are both intellectual and social is also modest: 14.9% attend a class in person once a month or more; 3.2% attend a book club once a month or more, and 27.7% play cards with friends once a month or more. *Contented Recreational Learners* participate in an average of 13.2 surveyed activities weekly. Their average age is 68.2.

Contented Recreational Learners are more moderately interested in giving back to their communities; 19.4% volunteer monthly for a community-sponsored activity.

They're very interested in cultural or artistic experiences and personal creative expression, though less so than *Focused Mental Achievers*: on a once-a-week-or-more basis 52.3% watch PBS television programs; 5.6% play a musical instrument; 18.6% write, and once a month or more 13.7% visit museums, libraries or art museums.

Contented Recreational Learners are physically active: 61.1% walk for exercise; 10.2% cycle, and (in season) 48.9% garden once a week or more.

Also, 40.8% of *Contented Recreational Learners* hold a valid passport, only 10.7% “don’t like to fly right now,” and 30.8% could find time to schedule a two-week trip somewhere.

Contented Recreational Learners are less well-educated than *Focused Mental Achievers*; 29.0% have college degrees or higher. While fewer *Contented Recreational Learners* (41.6%) than *Focused Mental Achievers* (52.1%) report household incomes of \$50,000 or more, *Contented Recreational Learners* are more relaxed about their financial situation: fewer *Contented Recreational Learners* (32.0%) than *Focused Mental Achievers* (36.6%) report concern about their financial future.

Overall, *Contented Recreational Learners* are optimistic, satisfied, and laid-back. They’re active intellectually, physically and socially, but perhaps less intense about it all than their *Focused Mental Achiever* counterparts. *Contented Recreational Learners*, for example, had a mean score of 3.14 (out of 5) on the question “It’s easy for me to relax;” *Focused Mental Achievers* had a mean score of 2.96.

Anxious Searchers

Anxious Searchers (23.0% of the surveyed 55+ U.S. population) participate in activities at roughly the same rate as *Contented Recreational Learners*, yet they’re more agitated and less optimistic and satisfied than their *Contented Recreational Learner* counterparts, with below-average levels of optimism (86 index) and life satisfaction (85 index). *Anxious Searchers* are involved in an average of 12.1 surveyed activities weekly. The average age of *Anxious Searchers* is 66.4.

Like *Contented Recreational Learners*, their interest in academic pursuits is distinct but moderate: on a once-a-month-or-more basis 3.3% of *Anxious Searchers* study a foreign language, 41.1% read nonfiction books, and 10.5% listen to lectures, seminars

or classes on tape. In addition, 13.9% attend a class in person once a month or more and 5.4% attend a book club once a month or more.

Anxious Searchers are relatively withdrawn from their communities; only 11.9% volunteer once a month or more for a community-sponsored activity.

They're also less interested than individuals in the first two segments in cultural or artistic experiences or in personal creative expression; on a once-a-week-or-more basis 49.1% watch PBS television programs; 4.4% play a musical instrument; 22.3% write, and once a month or more 14.5% visit museums, libraries, or art museums.

Anxious Searchers are nearly as active physically as *Contented Recreational Learners*: 52.6% walk for exercise, 4.0% cycle, and (in season) 49.2% garden once a week or more.

Anxious Searcher involvement in travel is low. Only 27.7% have valid passports and 21.3% strongly agree that they "don't like to fly right now."

Anxious Searchers are somewhat less well-educated than *Contented Recreational Learners*; 22.8% graduated from college or more.

Anxious Searchers have real concerns about their well-being; 43.9% report that their health "isn't very good right now," and 58.9% have real concerns about their financial future. Also, 19.3% reported significant stress, strain or pressure during the past few months, no doubt attributable to health and financial issues.

Overall *Anxious Searchers* are moderately engaged in lifelong learning but — possibly because of physical or financial restraints — have less social engagement than either *Focused Mental Achievers* or *Contented Recreational Learners*. Only 26.9% self report as "true lifelong learners."

Isolated Homebodies

Isolated Homebodies (18.0% of the surveyed 55+ U.S. population) have average levels of optimism (94 index) and life satisfaction (97 index). They have low levels of interest in academic-oriented pursuits; on a once-a-week-or-more basis only 2.5% attend a class in person and only 4.3% read nonfiction books. *Isolated Homebodies* are involved in an average of 7.4 surveyed activities weekly. Their average age is 67.2.

Isolated Homebodies are distinguished from the three segments described above by comparatively low levels of participation in activities that take you out of the house and into contact with other people. Only 5.4%, for example, sing in a chorus or other group; the next lowest group, *Anxious Searchers*, participate at a 16.5% rate. Similarly, only 5.1% attend a class in person (compared to 13.9% of *Anxious Searchers*), 4.7% dance (compared to 10.1% of *Anxious Searchers*), and no respondents classified as *Isolated Homebodies* attended a book club.

Isolated Homebodies have distinctly lower levels of participation in physical activities; on a once a week or more basis 34.3% walk for exercise, 5.1% cycle, and 33.2% garden (in season).

Only 14.1% of *Isolated Homebodies* hold valid passports, and only 3.7% went on a group tour to an international destination other than Canada in the last 5 years.

Isolated Homebodies have low levels of formal education (only 6.5% graduated from college or more), yet nearly as many *Isolated Homebodies* (23.8%) as *Anxious Searchers* (26.9%) self report as “true lifelong” learners.

Isolated Homebodies’ preferred style of learning (74.7%) is “experiencing something hands-on.”

Isolated Homebodies are laid-back, with only 7.8% reporting significant stress or strain in the past several months, and in reasonably good health, with only 27.4% reporting that their health “isn’t very good right now.”

Pessimists

The *Pessimists* (11.0% of the surveyed 55+ U.S. population) have pressing concerns that could prohibit them from seeking out lifelong learning activities. The *Pessimists* are involved in a scant 4.5 surveyed activities weekly. None are learning a foreign language or participate in a book club; 4.4% volunteer once a month or more for a community activity; 7.9% garden (in season). Their optimism (68 index) and life satisfaction (80 index) scores are the lowest of any segment; 64.5% report that their health “isn’t very good right now,” and 55.5% report strong concern about their financial future. Only 6.3% of the *Pessimists* graduated from college or more. The activities they participate in at rates well above the national average include casino gambling and watching movies on TV. The average age of the *Pessimists* is 69.6 years.

The Elderhostel Segments

Once the segments were established using data from the national sample survey, respondents to the Elderhostel participant survey were assigned to the same segments, and 85% of the Elderhostel respondents fell into the *Focused Mental Achiever* and the *Contented Recreational Learner* segments. (See Figure 3.) An additional 11% of the Elderhostel respondents fell into the *Anxious Searcher* segment, a segment which, despite exhibiting relatively low levels of optimism and life control, is characterized by a relatively high interest and involvement in lifelong learning activities (average weekly involvement in 12.1 activities); 4.5% fell into the *Isolated Homebody* segment, and 0.5% fell into the *Pessimists* segment.

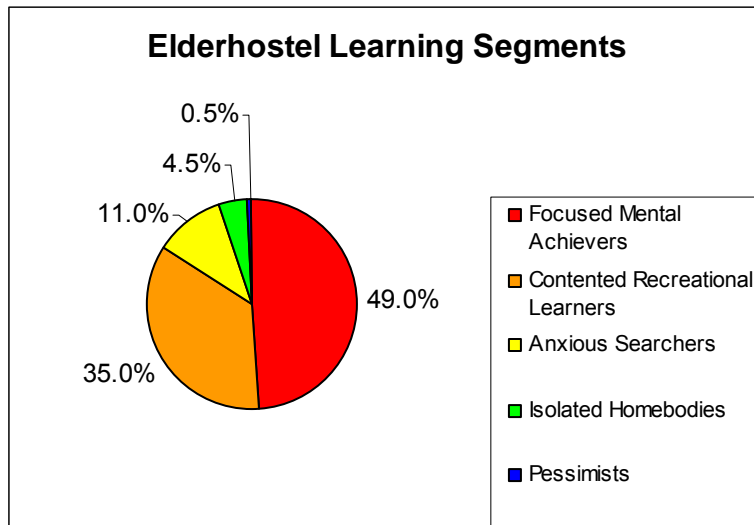


Figure 3

Elderhostel Participant Activities

Once we saw the considerable overlap between the Elderhostel participant respondents and the *Focused Mental Achiever* and the *Contented Recreational Learner* segments, we decided to go back into the field to conduct additional informal, qualitative research with the objective of discovering what other activities Elderhostel participants were involved in that were not included in the original survey. To accomplish this objective, we sent an e-mail to a group of our most active participants asking them to submit a free-form and open-ended essay describing activities they do that keep their “minds active and their brains sharp,” and to provide additional illuminating details about those activities.

We received approximately 335 thoughtful responses, and the activities mentioned were carefully coded and categorized. As we studied and pondered the list of activities and considered the many comments the Elderhostel participants had written, we began to see some interesting patterns emerge that have helped us create a richer picture of the lifelong-learning lifestyle.

A few dozen activities recurred frequently in the essays the Elderhostel participant submitted (see Figure 4). Each activity on the list is mentally stimulating. What stands out, however, is that nearly all activities have not only the dimension of mental stimulation, but a second, third, and in some instances fourth, dimension of social engagement, physical activity, or creative endeavor. In other words, lifelong learning — as defined by this highly active group of practitioners — is far more than attending college classes or tackling more sophisticated literature or nonfiction. And “mental stimulation” is far more than solving crossword puzzles or performing the solitary brain exercises some experts recommend. Rather, those older people with a commitment to “lifelong learning” are involved in a complex web of social, physical, and creative activities, each with a common core of mental stimulation.

Consider dancing, which, among the Elderhostel participants who wrote to us, refers primarily to ballroom dancing but also to more specialized forms such as Morris dancing. This kind of dancing is a complex activity, requiring great mental application to master. It’s terrific exercise. It’s social. And — certainly at advanced levels — dancing is a creative endeavor. In the lifelong-learning “lifestyle,” dancing has superstar status.

Even the two activities on the following list that were conservatively scored as only having a dimension of mental stimulation — “earn an advance degree” and “study a foreign language” — often have other dimensions. Earning an advance degree may involve group work (social engagement) and likely gets participants out of the house for some low-level physical activity; studying a foreign language also may take place in a classroom setting away from the home.

Frequently Mentioned Mental Stimulation Activities (Elderhostel Participants)

	Mental Stimulation	Social Engagement	Physical Activity	Creative Expression
Create website/blog	√			√
Play bridge	√	√		
Earn an advanced degree	√			

Study a foreign language	√			
Pursue genealogy	√	√		
Write	√			√
Teach literacy or ESL	√	√		
Community theater or play-reading	√	√	√	
Book club	√	√		
Lifelong Learning Institute	√	√		
"Scheduled socializing"	√	√		
Volunteer as a docent	√	√		
Dancing	√	√	√	√
Gardening	√		√	√
Tennis	√	√	√	
Digital photography	√			√
Play a musical instrument	√	√		√
Sing in a chorus	√	√	√	√

Figure 4

One activity on the list deserves a clarifying comment. “Scheduled socializing” is a term of our own invention. A number of respondents described getting together with the same group of friends for a meal at the same place every week for an open-ended, give-and-take review of their own lives and the world about them. They consider “scheduled socializing” to be mentally stimulating because they learn from each other, keep sharp as they can give and dodge repartee, and because these relationships are among the most important and stimulating in their lives.

Further Questions

This report *describes* five population segments using dimensions that include lifelong learning and mentally stimulating activities, psychological measures, and demographics, and we believe establishes a *correlation* between high levels of mentally stimulating activity, optimism, life satisfaction, educational attainment, self-reported good health, and higher economic status. Correlation, of course, is not causation, and our findings raise a number of intriguing additional questions, including:

- Is an individual's lifelong learning "status" more or less determined by the time they reach the age of 55 (the starting point for our research)?
- If so, what are the earlier experiences or factors that determine that status? Is it an accident of birth? Are early childhood and educational experiences determinant?
- Is attaining a college or graduate degree the "great divide" when it comes to becoming a lifelong learner?
- Is a college degree enough? Did those who are demonstrably lifelong learners at 55 and older in fact practice learning in their 20s, 30s, and 40s — that is, throughout life?
- If — despite the possible importance of birthright, early experiences, formal educational attainment, and lifelong practices — it's "never too late" to become a lifelong learner, what are the keys to making this lifestyle change?
- If latecomers can in fact be drawn into the learning lifestyle, how can family, peers and, more broadly, "society" help individuals make this transition?

Conclusions and Recommendations

Research inevitably begets further questions, some of which are introduced above. Nevertheless, this research suggests that it's time to move beyond the simple rubric of "use it or lose it" to a broader and more nuanced proposition that begins to suggest exactly how you should "use it" and what the aging might look like if you don't "lose it." Keeping your brain healthy and living as long as possible are laudable goals, but *living well* in older age is also important. Adopting a more nuanced conception of "use it or lose it" may also help consumers sort through the welter of new schemes promising to "age proof" your brain.

Marketers are jumping on the “use it or lose it” bandwagon, promoting computer games and programs that claim to “help aging Americans stay mentally sharp and perhaps ward off inevitable decline and lurking dementia,” wrote reporter Alice Dembner in a recent article in the Boston Globe. Despite these claims, she writes, “none has yet undergone rigorous independent testing.”¹²

One thing many of these games and programs share — along with several recent books on the topic — is reliance on metaphors of physical exercise to communicate their benefit. In her article, Ms. Dembner mentions programs called MindFit and Brain Fitness, calling them “gyms for the brain.” Publishers are offering flash cards called “Aerobics of the Mind” and books like “The 10 Minute Brain Workout” and “Keep Your Brain Alive: 83 Neurobic Exercises.” It’s no surprise that marketers are using exercise metaphors to communicate brain health to aging Baby Boomers; after all, Baby Boomers have fueled every fitness and exercise trend of the past 40 years. They’re comfortable with this language.

The problem with the exercise metaphor isn’t that it’s right or wrong, but that *it hasn’t been taken far enough*. The quick fix promised by these books, games and programs is much like the guarantee made by those machines advertised on late-night TV that promise six-pack abs in only minutes a day. While these machines likely won’t damage more than your wallet, anyone who has grappled seriously with fitness knows that long-term success requires diligence, and a balanced program of cardiovascular exercise, weight lifting, activities that build coordination and agility, stretching, rest, and proper diet.

Our research leads us to a broader hypothesis incorporating an expanded exercise metaphor, as follows: a key to health, happiness and longevity — indeed, to “successful aging” — is a sustained commitment to learning involving a variety of mental

¹² “Little proof that brain exercises can prevent mental decline,” Alice Dembner, Boston Globe, January 8, 2007

“exercises” blending intellectual stimulation, social engagement, physical activity, and creative expression.

Unlike dubious and over-simplified regimens that ask you to glue yourself to a computer screen or exercise your brain through gimmicks like writing with the nondominant hand, one of the attractive elements of this reformulation of the “use it or lost it” proposition is that a balanced approach blending mental stimulation, social engagement, physical activity and creative expression can be integrated into daily living in a natural and enjoyable manner. The natural, “everyday” aspect of the balanced approach also may hold the key to engaging those Americans who could benefit from more “brain exercise.”

Individuals, for example, have a host of opportunities for engagement with family members or neighbors they see slipping into narrow and more isolated daily patterns. They can schedule a regular meal with this person, take them out for a regular walk, set up a regular card night and bring a few friends, or create a book club for two (or more). Mentally stimulating activities that also involve socializing or that get the person out of the house and moving are best, and if they occur on a regular schedule, not only are they more likely to happen, but the beneficiary can have not only the experience itself but can enjoy anticipating the experience.

The health care professions — both doctors and nurses — must be educated and mobilized to spread the word about the advantages of the balanced approach. The admonition to exercise the brain through mental stimulation, social engagement, physical activity and creative expression should share equal weight with more common advice to quit smoking, lose weight, and exercise.

At the broader level of social or public action, neighborhoods and communities must invest in improving the quality and accessibility of senior centers. This will be controversial as swelling ranks of the elderly make it a political issue and potentially mobilize to reallocate public resources away from those preferred by other interest

groups. And it's likely that older citizens in wealthier, better educated, and more politically powerful communities — those in the *Mentally Focused Achiever* or *Contented Lifelong Learner* segments who likely need these services the least — will be those who succeed in garnering these resources. An important part of this campaign will be the economic argument that investing in senior centers *now* may help reduce health care costs borne by society *later*.

Similarly those who develop retirement communities, whether they be active adult retirement communities for the newly retired or continual care facilities for the “older old,” should create communities and facilities that enable a balanced approach to brain exercise. And retirees and others in the market for these communities — including families helping their older relatives make such decisions — should carefully vet the resources of the facilities they inspect.

Baby Boomers are on the brink of putting their own stamp on that phase of life that's come to be called “retirement,” and they come to that brink with faith in the “lose it or lose it” proposition. Just as they revolutionized bodily exercise as they discovered (or invented) jogging, marathons, aerobics, Tae-Bo, and dozens of other novel approaches to fitness, they have an opportunity to engage in a rich, varied and balanced approach to brain exercise incorporating mental stimulation, social engagement, physical activity and creative expression. The experience of Elderhostelers and others in the preceding generation suggests that if they do they will “age successfully,” live longer, and live well.