

MENTAL FITNESS FOR LIFE

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Summary report submitted by Sandra Cusack, Ph.D. & Wendy Thompson, M.A.
to the Mental Fitness Activity Committee, Century House, New Westminster, B.C.

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MENTAL FITNESS FOR LIFE

INTRODUCTION

Most people today have grown up and are growing old with a general view of old age as a period of inevitable decline, and of old people as useless and burdens on society. Such negative attitudes and assumptions continue to haunt them, even when people know better. If you ask people what they fear most about aging, the response usually is "losing it". What is "it" that people fear losing? "It" is mental fitness.

In July of 2001, the International Association of Gerontology convened its 17th World Congress on Aging; and 4,000 delegates from 80 countries met to explore the latest research on aging. The "Mental Fitness for Life" symposium was attended by more than 300 delegates--researchers and practitioners of all ages. Seven senior students in the program (ranging in age from 60 – 86 formed and in educational level from Grade 9 to postgraduate degrees) presented information and personal experience of the mental fitness program. The response by both delegates and media was overwhelmingly positive.

This report will describe the program and its benefits. For the first time, a valid and reliable screening scale for depression was used with important results that have implications for future mental fitness research and program development (Special thanks to Dr. Norm O'Rourke for providing the CES-D and to Mary Rogers, a graduate student in the Gerontology Program, for assistance with the statistics.)

Following the World Congress both an Introductory Class and a Seminar Series were offered. During the Fall, a committed group of 15 people in the Seminar Group continued to work on their mental fitness and

prepared for presentations at a Mental Fitness Public Forum. The forum was filled to maximum capacity (110 people) and was attended by a number of invited guests from the City of New Westminster.

MENTAL FITNESS FORUM November 30, 2001

INTRODUCTION TO MENTAL FITNESS FOR LIFE:

by Sandra Cusack and Wendy Thompson

The Mental Fitness program is based on solid research, and we introduce research into every program. Old research taught us that mental abilities decline with age: new research proves that it isn't true and there is more. Mental abilities can not only be maintained, they can be *improved* to the end of life. As Professor Baltes at the World Congress suggested, " a transformation of the experience of aging is required -- we need to promote a culture of "continuously developing mental abilities". Further more, the latest research from the Nuns' study suggests that we can also prevent or delay the symptoms of Alzheimer's disease.

The Mental Fitness program at Century House provides compelling evidence that the mind is indeed the new frontier of aging research, and the possibilities for continuous growth and development are unlimited.

What does the research say about the impact of learning on health?

What is mental fitness?

How do we exercise it?

What are the benefits and achievements?

What is the Value of Learning?

Learning is good for your health. The relationship between education and health is well-established in the literature -- we've known for many years that people with higher education tend to have better health. The good news is: that "Hope, self-esteem, and education" are the most important factors in creating health daily, no matter what our background or the state of our health in the past. American researcher, Paul Nussbaum, has introduced the concept of a "learning vaccine", which he describes as a booster shot of learning that protects us from brain diseases, such as Alzheimer's. And that's exactly what the mental fitness program has to offer. Now, you can come to Century House for your flu vaccine, and you can get your "learning vaccine" by enrolling in a mental fitness program.

What is Mental Fitness?

The brain has muscles for thinking as the legs have muscles for walking.

~J.O. De La Mettrie: L'Homme machine, 1748

Like physical fitness, mental fitness is a condition of optimal functioning that is achieved through regular exercise and a healthy lifestyle. More specifically mental fitness includes setting personal goals, critical thinking, creative thinking, learning and memory, speaking your mind, and a positive mental attitude characterized by optimism, mental flexibility, self-esteem, confidence, and a willingness to risk. No one can expect to be physically fit without a fitness program and no one can be mentally fit without a fitness program.

How do We Exercise our Brains in the Mental Fitness for Life Program?

The program consists of a series of eight intensive workshops where participants learn how old attitudes and beliefs about declining mental abilities restrict their options for a vital, healthy old age. How to change negative to positive beliefs that reflect potential for growth, how to speak the language of possibility, how to think critically and creatively, how to appreciate diversity and different perspectives, how to take risks, and how to listen to each other with renewed respect are all aspects of the program.

The challenge to participants is to become mentally fit for life. A theme throughout is -- out with the old and in with new:

Out with the old research and knowledge, and in with the new.

Out with the old beliefs, and in with the new.

Out with the old person, and in with the new.

Goal Setting. We explore why it is important to set goals and why people often fail to set them. Participants engage in activities designed to develop the motivation and the ability to set reasonable goals and achieve them. Achieving one's goals depends on motivation and desire, therefore, a variety of teaching techniques are used to generate desire and commitment, and to help people to discover their passion.

Critical Thinking. Critical thinking is explored as a process and a skill as outlined by Brookfield (1989). Critical thinking is a process for identifying and eliminating old beliefs and assumptions that involves the following steps:

(1) becoming aware of limiting beliefs, identifying them;

- (2) challenging them; creating an argument within ourselves;
- (3) learning to think in new ways;
- (4) replacing limiting beliefs with beliefs that serve people well.

A variety of teaching techniques are used to raise awareness of assumptions and to develop and practice critical thinking skills.

Creativity. Old research suggested that creative achievement declines with age; whereas new research demonstrates that people can develop creativity well into later life. People become more creative when they no longer think of creativity as artistic expression and are free to "climb out of the box" (i.e., to think and act in radically different ways.) Throughout the program, exercises and activities are designed to develop creative thinking skills.

Positive Mental Attitude (PMA). We discuss the importance of a positive mental attitude and new research that suggests how positive attitudes can be learned. Participants complete Seligman's (1995) learned optimism test, explore and practice strategies for changing negative attitudes to positive.

Learning & Memory: Memory & Learning. While everyone is concerned about memory, few appreciate the intimate connection between learning and memory that the following phrase characterizes: "If you can't remember something, you probably never learned it." Facilitating adult learning is the teacher's responsibility. If one attends a lecture and can't remember what they heard, consider that the teacher may not have used the most effective teaching strategies. Participants are given tips for improving their ability to learn new information. Mindmapping, as outlined by Buzan (1993), is

introduced as an effective technique, because it uses creativity to enhance both learning and memory.

Speaking Your Mind. Session seven offers an opportunity for people to use their newly honed critical and creative thinking skills to incorporate what they have learned, to share their personal experience concerning mental fitness and its benefits. Homework assignments assist people in preparing class presentations.

Mentally Fit for Life. The final session focuses on updating progress toward achieving personal goals, developing strategies for maintaining mental fitness, and exploring future directions for personal growth and improved mental fitness.

The sessions are stimulating and challenging with quizzes and puzzles -- and homework assignments. Like everything else in life, the harder you work, the greater the benefit -- and the more fun you'll have.

Who Participates in a Mental Fitness Class?

The program is for everyone who is concerned about memory and wants to improve their mental abilities. Participating in any form of educational program may improve your mind, but taking university courses is not everyone's cup of tea. Mental Fitness, however, is for everyone. Over the years, students have ranged in age from 50 to 92; with very diverse educational backgrounds, some with only grade 8 and one with a Ph.D., others for whom English is their second or third language.

What are the Benefits and Individual Achievements?

One important emphasis in the program is on setting personal goals and achieving them, goals that people may have only dreamed about. And over the years, there have been a variety of achievements: such as losing weight, quitting smoking, writing one's memoirs, and making a presentation at the World Congress of aging last July. Two graduates of the pilot program (aged 78 and 81) were married on the beach in Hawaii, much to the surprise of their children and grandchildren (and they are still together 5 years later). Another woman wanted to be a standup comedian, and she now has speaking engagements all over the lower mainland. Most recently, two participants have formally "resigned" from the class and are going on to pursue their interests in the theatre.

Mental Fitness research is ongoing. In addition to gathering rich anecdotal information and personal testimonials concerning the myriad benefits of the program, we have documented the impact on measures of health (e.g., depression, self-confidence, self-esteem, and memory). People in their 60's, 70's, 80's, and 90's have become visibly healthier and more vital than ever before, and are making outstanding contributions to society as a result of the program. They are all unique, but they have one thing in common, they are mentally fit for life. The following pages (9-24) describe the various components of the program from the perspective of individuals in the program.

A CANADIAN MENSA QUIZ

By Jean Blaine

JEAN BLAINE was born in Golden BC where she attended a one-room country school for four years before moving to the Lower Mainland. As a busy mother of four children, she embarked on a university program and obtained her B.Ed. degree from UBC in 1978. Jean joined the Mental Fitness program four years ago, despite her vow that she would never take another course that required homework. At least, she says, there are no exams in the Mental Fitness program, and the assignments keep her mentally fit. Incidentally, she does her homework!

1. A Alberta What province is home to Canada's Valley of the Dinosaurs?
2. B B.C. Which Canadian province is on the West coast?
3. C Canada Dry What is the brand name for the "Champagne of Ginger Ales?"
4. D Donald Duck What Walt Disney creation celebrated his 50th birthday in 1984?
5. E Eisenhower Which future US president married M.G. Dowd in 1916?
6. F Fraser What river dumps its effluent into British Columbia's Strait of Georgia?
7. G Gretzky What hockey player did Ronald Reagan joke he would trade Texas for.
8. H Hollandaise What sauce smothers Eggs Benedict?
9. I Ivory What is the narwhal's tusk made of?
10. J Jambalaya What creole dish did Hank Williams sing about in 1952?
11. K Kissing What act of affection was banned in England during the plague?
12. L London What city is home to the famous market called "petticoat lane"?
13. M Macho What Spanish word for "masculine" made big inroads in English in the 60's?
14. N New Brunswick What maritime university did Anne Murray study and teach physical education at?
15. O Ottawa What Canadian city boasts North America's largest display of tulips?
16. P Popcorn What future movie treat was introduced to American colonists by an Indian name Quadequina?
17. Q Queen Elizabeth Who is pictured on a Canadian \$20 dollar bill?
18. R Riviera What is the Italian word for coast?

19. S Seville What Spanish city does the legendary Don Juan call home?
20. T Trafalgar What London square does Canada House overlook?
21. U Universal What film studio is California's second largest tourist attraction?
22. V Vancouver What Canadian port Handles the most tonnage?
23. W Wailing Wall What famed wall did Isreal capture in 1967?
24. Y Yellowstone National Park Where is the world's greatest concentration of active geysers?
25. X Xerox What corporation, famed for its photocopiers, took its name from the Greek word for "dry"?
26. Z ZsaZsa Which Gabor declared: "I'm a wonderful h ousekeeper. Every time I get a divorce, I keep the house".

GOALSETTING

by Ed Keilbart

ED KEILBART was born on January 13, 1935, at home and raised on a farm in Barrhead, Alberta. He completed two years at UBC and went on to work for BC Telephone for 37 1/2 years. Ed has worked on physical, mental, and spiritual development throughout his life, and continues to do so. He has just completed the gruelling 80 km. WestCoast Trail on May 16-22nd of this year. He enrolled in the inaugural Mental Fitness Class of '96 and is still actively involved in the program.

The first mental fitness topic is GoalSetting. GoalSetting is a dynamic process for getting things done. It's a direction and meaning to life and it is essential to keeping us alive. It's a way of getting to where you want to go and help to clarify what is important in your life. Goal Setting promotes happiness and creates confidence and self-esteem. In mental fitness we all have achieved goals. Having goals is more important for older adults.

There are 10 steps to GoalSetting that I'll tell you about. But first, I want you to guess my weight.

The 10 Steps for GoalSetting

- 1) Desire -- set a goal you intensely desire for yourself. In my case, my goal was to lose 10 pounds of weight and make the goal believable, i.e., I really believe I can do it.
- 2) Write it down -- This is critical. The process of writing it down programs your goal into your mind. It makes it more real. In fact, until you have written down your goal, it remains only in your dreams.
- 3) What are the advantages to achieving it? -- I will feel better, be more energetic and have more flexibility.
- 4) What is your current status? My status was 178 pounds.
- 5) Identify obstacles -- I enjoy snacks, like to eat big meals, can't turn down sweets, I get lazy and don't exercise.
- 6) Identify knowledge you will need -- I will find some inspiring weight loss books in the library, search out support groups, cost out weight watchers, and if all else fails -- duct tape my mouth shut.
- 7) Identify people or groups that will help you reach your goal -- i.e. support from spouse, family, friends, mental fitness group or any other group.
- 8) Make a plan with activities and a timeline and deadlines -- Hike once a week, square dance, play golf, play ball in leagues 3 times a week, bike, ski, and volunteer with physical work. Deadline to reach my goal is 5 months.
- 9) Get a clear mental picture of your goal -- I'll have a feeling of accomplishment and satisfaction for doing it, feel better & promote my own health. I'll picture myself the size I want to be.

10) Back your plan with determination & persistence -- Weight loss is a combination of food intake and exercise to burn off calories. These 10 steps really work. I lost 4 lbs. just doing the grueling 80 km. Westcoast Trail in May at the age of 66. And, by the way, I am now between 155 and 160 pounds (a total loss of 20 pounds) and have maintained this weight for 4 years, and I feel great.

GoalSetting has changed my life. I used to think it was just for young people, but older adults have a future, too. Anyone who uses these 10 steps will find their life enriched. It has definitely worked for me.

CRITICAL THINKING

by Greta Hurst

GRETA HURST was born 65 years ago in Montreal. In 1973, with her husband and 3 children, she moved to Europe for 8 years. Joining a feminist group in Brussels changed her worldview, when she understood the reality of women's lives through feminist theory. Since arriving in Vancouver 10 years ago, Greta is proud of having learned to ride a motorcycle and to scuba dive, and she is proud to be a Raging Granny as part of her political life. She loves change and taking risks – and you're going to hear about it right now.

Critical Thinking is the second component of Mental Fitness. This is the ability to recognize limiting beliefs. I can say my leg is broken so I can't go skiing -- this would be a fact. But if I say, I'm afraid I'll break my leg so I can't go skiing -- this is a belief. Critical thinking is a process of questioning our old ways of thinking and acting. An example of this, was my belief, before I first rode a motorcycle in my mid-fifties, that I was too old and would probably kill myself. Once I decided that these reasons were actually beliefs and not facts, I signed up for lessons, went out on the road with

instructors, and although I had a couple of major scares, I stopped the negative whispering in my ear and started encouraging myself with positive self talk.

Critical thinking is a process, not an outcome; the more I was out on the road riding my bike, the positive self-talk helped me overcome most of my fears. It was the continual questioning of old beliefs that got me to a new vantage point -- seeing myself as an accomplished rider. Because I successfully learned to ride my motorcycle, I was able to complete scuba diving certification in my early sixties despite my fears that I might drown. Now at 65, I have started bicycle riding and find my motorcycle experiences are helping me overcome my fear with every ride.

You may well ask, 'is this a good example of critical thinking'? My answer is that the critical thinking happened whenever I tried to imagine and explore alternatives to my usual ways of thinking and acting. I would never have appeared on stage, for example, in theatre productions when I first started years ago had I continued to believe my memory was poor.

Without critical thinking, personal relationships would suffer. Not least, a critically informed populace is more likely to participate in forms of democratic public office or grass roots political activity. It is especially urgent as what we learned at school has little transferability to life in the 'real world'.

Some attitudes necessary to develop for being a critical thinker include curiosity, flexibility, skepticism and honesty. The emotions -- sensing and intuition -- are all part of critical thinking in adult life. Because I had a sudden gain in weight over the past year and was feeling down emotionally as well as physically, using critical thinking as to why I was

overeating, I have joined Overeaters Anonymous to find ways to combat this addiction.

Asking critical questions can be anxiety-producing. I may feel fearful of the consequences that might arise from contemplating alternatives to my present way of thinking and living but I do it anyway, based on past successes.

Critical thinking is triggered by positive as well as negative events. My best critical thinking happens when I feel stuck in a particular situation or problem. One of the exciting aspects of this way of thinking is imagining and exploring alternatives to present ways of thinking and being.

Critical thinkers see themselves as creating and recreating aspects of their personal, work, volunteer and political lives. As our beliefs are generally self-fulfilling prophecies, the ability to think critically is a logical process to help us establish strong, positive ways of being in the world. With critical thinking we can create endless possibilities for ourselves.

CREATIVITY

by Barbara Guttman-Gee

Barbara Guttman-Gee was born in the UK in 1916. She qualified for Oxford University at 16, but the war and the Great Depression intervened. She married and became a court reporter, retiring at age 65. It was then she returned to her passion for learning and enrolled in a BA by distance education. In 1981, she graduated from Simon Fraser University with a Masters Degree in Women's Studies, when she became a raging feminist. She has subsequently received an honorary Doctorate from the Open Learning Agency for her contributions to the field of learning and her commitment to destroying the myth of inevitable mental decline with aging.

Creativity is the foundation of mental fitness. The myth that it declines with aging must be broken, and that to be creative something artistic must be produced. To keep abreast of new ideas, in touch with others, helping solve problems, are all creative. The older person must continue to expand horizons, and I certainly expanded mine the other night when my granddaughter took me to a Drag Show in a downtown Gay Bar. Packed tables, coloured strobe lights, deafening rock music -- definitely Dante's Inferno. You'll remember Lawrence Olivier in the "Entertainer", middle-aged sleezy showman, frosty British Music Hall -- that was it. The two Drag Queens on the tiny stage wouldn't see fifty again -- although the blond had kept her figure and could still flaunt a few sequins in strategic places. Although I missed much of the bawdy patter as my hearing aid was useless in the din, I thoroughly enjoyed myself, clapped, stamped and hooted. At the end, another Queen came over to our table and said, "You look gorgeous, we all love your hair, are you still single?" I don't think I have ever felt more flattered! Everyone in the room, including myself, was "out of the box."

GETTING OUT OF THE BOX

by Jo Ebert

JO EBERT was born in New Zealand in 1917 and came to Canada when she was 5 years old. She graduated from St. Paul's hospital nursing program and has been an enthusiastic member of our mental fitness class for many years. Her cheerfulness and humour have helped to make each class more enjoyable. She says we are going to miss her when she leaves us at 102.

Today I am going to talk about the expression "getting out of the box." I'm sure you are all familiar with it. It is used everywhere these days, even in the business world. It is usually an outcome of our creative thinking.

Creativity is an attribute of every human being, not just the gifted. It is an expression of the human spirit, and when our creative mind encourages us to explore new avenues in life, we are helping ourselves to get rid of the negative myths that have boxed us in over the years; myths such as the belief that mental and physical capacities inevitably decline as we age. This is patently not true, and thinking this way prevents us from enjoying life as much as we should. So, I am going to tell you a couple of stories about how I got out of the box.

But first, I want to tell you about one of the members of our Mental Fitness class. She was perhaps the first to really get out of the box. She took a course in stand-up comedy, a pretty scary experience I would think. But she persevered, and became so good at it that she is performing at many comedy clubs in the Lower Mainland. In fact, she is so busy that we haven't seen her since.

My first really exciting experience in getting out of the box occurred a few years ago when I went to a play at the Queen Elizabeth Playhouse in Vancouver. It was the play by Morris Panych called, "The History of Things to Come". As you can tell by the title, it was a very obscure play, and I didn't understand any of it. But at one point in the play, the leading character asked for volunteers from the audience. Because I was only four rows from the stage, I knew I would have a very good chance of being picked. And sure enough, I was. I went up onto the stage and was led to the wings where I was given a regal costume with a crown and I was led out onto the stage. The actors began asking me questions. Finally, they said, how did you get to be King? And I told them I never was until I was kidnapped by you people. I think he thought I was getting to cheeky because he promptly ushered me into the wings.

I was so pleased with myself. It was a wonderful experience. I would never have had the courage to do it if I hadn't been attending mental fitness classes. These classes give us many opportunities to speak out before the group and we get lots of support and encouragement. This boosts our self-esteem so we are fairly comfortable embarking on new ventures.

Just recently, I had another opportunity to leap out of the box when our drama class at Century House decided to make a presentation at Amateur Night. Three of us played the Spice Girls and we were dressed in cute little costumes. Everybody howled -- and we were such a hit with the students from the High School that they have asked us to give another performance for a larger group of students.

So you see, getting out of the box is very rewarding and if I can do these things at 84, it's never too late and you don't have to wait so long.

POSITIVE MENTAL ATTITUDE

By Dot Josey

DOT JOSEY was born in England in 1922, worked and lived in London during the Blitz. She came to Canada as a war bride, raised 3 sons and worked most of her married life. Since retirement, she has been a dedicated volunteer at Century House, as a Sr. Peer Counselor and Leader of Mild Fitness Classes. Dot has been involved in mental fitness from the beginning, providing leadership as Chair of the Lifelong Learning Committee, and the Mental Fitness Activity Committee. She claims the classes helped her to develop a flexible open mind, the curiosity to learn new things, and boosted her self-esteem, which has opened up an exciting new world.

I'm one of the fortunate ones who has a PMA and I didn't have to go university to get it. But I did have to work at it. A Positive Mental Attitude is one of the components of Mental Fitness. When I first attended the Mental Fitness class, I realized I needed to be more positive. I also had to

reactivate my learning skills. After much practice of "looking on the bright side", my life became happier. I felt motivated, able to cope, to plan and to set achievable goals, and enjoy the satisfaction of seeing them through to completion. It was as though I had been wearing blinkers. Now, I can see the best of every situation and strive for it.

The following is a description of a positive mental attitude that I read in a book by Napoleon Hill and Clement Stone called "Success Through a Positive Mental Attitude."

The starting point of all achievements is to have a purpose and to become motivated. As soon as you can name your goal, you can expect many advantages, they come almost automatically. The first advantage is that your subconscious mind begins to work under a universal law. What the mind can conceive and believe, the mind can achieve with a positive mental attitude. When you visualize your goals, your subconscious is affected by the self-suggestions and it goes to work to help get you there.

The second advantage of having a positive mental attitude is because you know what you want, there is a tendency for you to get on the right track and head in the right directions. The third advantage -- you study, think, and plan. The more you think about your hopes, the more enthusiastic you become, and the more you desire your goal. The fourth advantage is that you become alert to opportunities that will help you achieve your goals. When you know what you want, you are more likely to recognize these opportunities.

Positivity keeps you healthier -- it gives you a great feeling of well-being. It is a well-known fact, if you have a positive outlook, you will recover more quickly and easily from an illness. I experienced first hand the truth of that seven years ago. I am sure it was my positive attitude that

enabled me to be discharged from the hospital less than 2 weeks after a five by-pass heart operation, and return to my volunteer work leading a seniors' fitness class within 3 months. I learned and grew from that experience. It was my positive attitude that jump-started me to become active again.

Taking part in a purposeful activity such as the Mental Fitness course has helped me develop an open mind -- open to all influences -- and it has helped me to develop a curiosity that spurred me on to learn new things. It has boosted my self-esteem, made me more confident -- but most of all, the Mental Fitness course has inspired me to reach my potential.

Our mental abilities do not diminish as we grow older. The challenge is to engage in some form of mental exercise every day -- like a crossword puzzle -- and cultivate a positive mental attitude. There is no question you will be healthier and happier for it.

LEARNING AND MEMORY

By Freda Hogg

FREDA HOGG was born in England in 1916, and came to Canada on a troopship in 1919. She continues to be active in the community of New Westminster where she has lived for 80 years. She has served as a member of the Order of Eastern Star, member of Councils of Women, member of the Board of the Canadian Club, a member of Century House for 25 years and a volunteer for the Royal Westminster Regiment. Her mental fitness goal was to become computer literate and, as a result, she recently e-mailed family in Ireland, Toronto, and Vancouver from the high seas aboard a cruise ship.

Oh, goodness, I forgot this was the day for my presentation. How many times have you said, "I forgot"? How many times have you heard your friends say, "I forgot"?

Consider another scenario: When I am introduced to someone, I say, "It's nice to meet you, Katie". Then during our conversation I say, "I hope

your shopping goes well, Katie". I will have focused on her name several times, so in all probability, I will remember it next time we meet. If we want to remember something, we have to learn to focus our whole attention on it.

One of the islands I visited on a recent cruise was Fiji, and we drove to a beautiful orchid garden. Wanting to learn more about it, I read that Raymond Burr, the famous actor, had lived in Fiji and had left his collection of orchids to the community which was the origin of this garden. Then I remembered that Raymond Burr had lived in New Westminster next to the church I attended. The point I make is that if I had not persevered in learning the history of this garden, I never would have remembered this important connection to the famous actor.

I also learned about the other Pacific Islands prior to leaving on my cruise, so the commentaries by the guides stayed much more clearly in my mind. Now that I have learned, at nearly 85 years of age, to operate a computer -- to use Winston Churchill's famous phrase -- "with blood, sweat, and tears", it has opened up a whole new world of learning for me. I e-mailed my family in Ireland, Toronto, and Australia -- all from the high seas! That will always be something for me to remember.

How acute our memory can become as we age if we keep it stimulated and challenged. I have lived in the days when there were no passenger planes flying across Canada. Now I am a frequent flyer on several major airlines. My mental fitness classes are helping me learn and remember much in this new age of technology, including coping with ticket agents and monstrous new airports. I have just returned from the wedding of my beloved grandson in Toronto over the July 1st weekend. Booking my ticket and coping with two busy airports was no mean feat, if you know what they are like at such a hectic time. Thank you mental fitness classes!

To close, as we stood on the highest peak on the Island of Samoa, our guide told us that this was the meeting place of the gods in past years, and that when the natives killed their enemies, they ate their brains. I have here in my hand a replica of the utensil they used to pick the brains. Gruesome! However, in our mental fitness classes, we pick our brains in a much more civilized way.

MENTAL FITNESS FOR LIFE by Pauline Mowat

PAULINE MOWAT was born in India in 1918, and was totally dependent on her nanny until the age of 10. In later years, Pauline and her husband pioneered several projects serving mental challenged people, but she never dreamed that she would feel more alert and self-confident than ever before at 83 years of age. She has found a new joy in life through the mental fitness class, know that she can continue to develop her brain to the end of life.

I have learned that our brain is an organ. When I first heard this, I pictured the musical instrument, the organ, with all its sound mechanisms waiting to bring forth every imaginable kind of music. It is common knowledge that we only use a small portion of our brains, but recent scientific research into the function of the brain tells us the great news that this organ is capable of alerting new channels, growing new dendrites to parts of the brain that have not been used before.

Our brains are like a vast musical instrument waiting to be played, exercised, drawn upon even to compose new tunes. In the mental fitness program we are researching ourselves, exploring new frontiers, taking new risks, achieving new goals, and discovering a new joy of living.

I challenge you -- please celebrate the potential resource created by the increase of an aging world population. Now that we are learning the versatile nature of our brains as available instruments, let us encourage the assets of creativity in mature citizens. We stand before you as living testaments that a mental fitness program works.

AGING WITH GRACE: WHAT THE NUNS STUDY HAS TO TELL US
by Eva Lukacs

EVA LUKACS was born in Budapest, Hungary, in 1922. After living through the war years and the different totalitarian regimes--from far right to far left--in her native country, she emigrated to Canada in 1957 with her husband and daughter. In the last few years she has attended mental fitness classes, and is very interested in gerontology, the science studying various aspects of old age, endeavouring to improve the lives of seniors.

We have heard a lot during the last two years about the "Nuns study". Now Dr. David Snowdon has published his research in a book: "Aging with Grace". The book is better than a who-done-it or a mystery. As a matter of fact, you may call it a mystery, because it deals with "Alzheimer's Disease", one of the most mysterious scourges of our time and because we are all living longer, it strikes more and more people.

Dr. Snowdon graduated as an epidemiologist from the University of Minnesota, and later moved to the University of Kentucky in Lexington, where he teamed up with other scientists (neurologists, psychologists, etc.). When they were successful in obtaining funding from the National Institute on Aging, they were on their way.

David Snowdon first met some of the nuns from the School Sisters of Notre Dame, when he was a child growing up in California, and this connection led him to his research. The reason for choosing this group was,

that those sisters, all with college education, have been teachers for many years and lived under circumstances in various convents throughout the United States. Their backgrounds, however, were as diverse as can be; some of them came from farming families, some emigrated from Europe, the parents of a few were professional people. Not having any financial, family, or other personal involvement, put them on similar footing for the research.

All the nuns had to submit a short autobiography upon entering their respective convents, and Dr. Snowdon was fortunate enough to acquire access to those records, helping him and his colleagues to draw comparisons in regard to development and/or deterioration of their brains. He then presented his research plan to the nuns, emphasizing the devastating signs of "Alzheimer's Disease", and gingerly asked them, whether they would consider donating their brains for further study. The response was astounding! Consent forms were signed, and here are some of the comments made by the nuns: "Well, of course, he can have my brain; what good is it to me when I am 6 ft. under? Another one: "He is asking for our help--how can we say, "no"?"

So it began and the study is on-going, with ups and downs in the research; there is hope for new findings and eventually a cure. We at Century House, and I hope most seniors, realize now that continued lifelong learning may prevent and/or dramatically delay symptoms of "Alzheimer's Disease". An article in a recent issue of "Good Times" magazine with the title: "Senior students, a class extraordinaire" quotes, among others, the opinion of a 98 year old woman. She is two years older than the Province of Saskatchewan and still takes courses from the University of Regina's Seniors Education Centre: "Studying is a life force in itself." Naturally, we should also eat 1/2 cup of wild blueberries per day.

Many people attending the Mental Fitness Forum subsequently enrolled in the Introductory Course which was offered January - March of 2002.

INTRODUCTORY MENTAL FITNESS CLASS 2002

The focus of the research component for the Introductory Class was on gathering hard data concerning the health benefits of a mental fitness program and the results have important implications for future Mental Fitness research and program development.

Participants

Twenty-two people enrolled in the class; 18 completed both pre and posttest measures. Ages ranged from 50 to 84, with an average of 68 years. Of interest, this represents a 35-year spread: reflecting a broader age range of people who are concerned about their mental abilities.

Method

In addition to anecdotal information, the impact of the intervention (i.e., the Mental Fitness for Life program) on the Cusack/Thompson Mental Fitness Self-Assessment Scale, the Rosenberg Scale of Self-Esteem, and the CES-D (Centre for Epidemiological Studies Scale for Depression) was assessed. The Cusack/Thompson Self-assessment Scale reflects the components of the Mental Fitness for Life Program, which have repeatedly suggested increases in memory, confidence in mental abilities, and level of mental fitness. The Rosenberg and CES-D scales were chosen because of consistent anecdotal information supporting improvements in self-esteem

and a more positive attitude. Furthermore, these two scales are valid and reliable measures widely used on population samples of normal, community-living older adults.

In a repeated measures study design where each participant is measured twice on the dependent variable(s), a t-test procedure is often used to establish the statistical significance of the difference between the two measures. For this study, the difference between the average pretest and posttest scores on the Rosenberg, CES-D, and QT Mental Fitness scales were analyzed using a t-test to determine whether the program had an effect on participants' levels of self-esteem, depression and mental fitness.

Results

Table 1 presents the pretest and posttest means, the t value for the difference between these means, and the level of statistical significance of the t value; statistical significance was set at $p < .05$. Fifteen participants completed the pre and post Rosenberg and CES-D assessment scales and fourteen participants completed the pre and post QT Mental Fitness Self-Assessment Scale. Examination of the table reveals that statistically significant t values were obtained for the difference between the pretest and posttest group means on the CES-D scale, the Mental Fitness Self-Assessment Scale and eight of the ten components of mental fitness comprising the QT Mental Fitness Scale. On a scale ranging from 20 to 80 with higher values reflecting higher participant depression, the average CES-D score dropped from a mean of 34.40 before the program to 29.53 after the program ($t[14] = 2.34, p < .05$). Out of a possible score of 100, the mean QT Self-Assessment Mental Fitness score increased from 64.07 to 78.50 ($t[13] = -4.82, p < .001$). The difference between the means obtained for the

Rosenberg, measuring self-esteem on a scale ranging from 10 to 40, did not achieve statistical significance. Although these self-esteem scores increased in the expected direction, the failure to achieve statistical significance may be due to a limited level of statistical power to detect a small effect resulting from the small sample size for this analysis ($n = 15$).

Participants gave themselves a rating from 0 to 10 for each of the ten components that comprised the QT Mental Fitness Self-Assessment Scale with higher numbers reflecting higher levels of mental fitness. Self-assessed ability to set and achieve goals had the largest statistically significant gain from a pretest mean of 5.86 to a posttest mean of 8.43 ($t[13] = -3.15$, $p < .01$) while average memory scores showed the second largest improvement from 5.79 to 7.36 ($t[13] = -3.56$, $p < .01$). Participants' confidence in their mental abilities rose from a mean of 6.64 to 8.07 ($t[13] = -3.33$, $p < .01$). Observation of the table also reveals that average optimism scores increased from 7.14 to 8.14 ($t[13] = -2.75$, $p < .05$), creativity rose from 5.71 to 7.21 ($t[13] = -3.31$, $p < .01$), and mental flexibility improved from 6.79 to 8.29 ($t[13] = -4.84$, $p < .001$). Finally, ratings on the ability to speak one's mind clearly increased from 6.43 to 7.79 ($t[13] = -6.03$, $p < .001$) and self-reported level of mental fitness rose from 6.71 to 8.14 ($t[13] = -3.68$, $p < .01$). The change in means from pretest to posttest on participants' willingness to take risks and ability to learn new things, while in a positive direction, were not statistically significant. Again, had the sample size for this study been larger, and the power to detect small effects greater, these differences may have achieved statistical significance.

Table 1

	Pre-test Mean	Post-test Mean	t
Rosenberg Scale	32.47	34.27	-1.476
CES-D Scale	34.40	29.53	2.336*
QT Mental Fitness Scale	64.07	78.50	-4.822***
Confidence in mental abilities	6.64	8.07	-3.333**
Setting and achieving goals	5.86	8.43	-3.148**
Willingness to take risks	6.29	7.36	-1.741
Optimism	7.14	8.14	-2.754*
Creativity	5.71	7.21	-3.305**
Flexibility	6.79	8.29	-4.837***
Ability to do new things	6.71	7.71	-2.034
Memory	5.79	7.36	-3.562**
Ability to speak your mind clearly	6.43	7.79	-6.032***
Level of mental fitness	6.71	8.14	-3.680**

(*denotes significance at $p < .05$; **denotes $p < .01$; ***denotes significance at $p < .001$).

In common language, these findings are extremely important. What the tests show is that the mental fitness program has a significant effect on mental health as measured by a valid and reliable screening test for depression. In addition, the changes on the Mental Fitness Scale are more dramatic than those documented in previous years. Strong improvements are noted on mental fitness, confidence in mental abilities, setting and achieving goals, optimism, creativity, flexibility, memory, ability to speak

your mind, level of mental fitness. The two items that were not significant were the ability to do new things and willingness to take risks -- this may be due to the fact that people enrolling in a mental fitness class are already taking new risks and feel confident about their ability to take on new things.

NEW ENRICHED SEMINAR GROUP

This section of the report describes the activities of the newly enriched Seminar Group, anecdotal information regarding the impact of the program based on a written questionnaire, and recommendations for future directions.

In March 2002, the majority of graduates from the Introductory Course joined the Seminar Group making a total of 24 members in the Seminar Group. Dr. Bruce Whittlesea, professor from Simon Fraser University's Psychology Department spoke on Memory and Learning and the seminar series concluded with two guests, Elizabeth Jones and Diane Manning, from the Seniors Program at Simon Fraser University who spoke about their experiences and the educational opportunities available at Simon Fraser University.

Feedback Questionnaire

When the seminar group was asked how they know that they are more mentally fit than when they started the program, responses were:

- *Since I started two years ago, my interests and activities have changed enormously. I am no longer frightened of getting older and feeling diminished simply because I have never felt this good. I am excited about the future and all my plans for it. I am no longer*

daunted about my very low income because I know I'll always find money for what I want to do. I also have a better ability to live every moment; I am more disciplined; and I have a better relationship with my eldest daughter.

- *I was frozen with no self-confidence at first. More importantly I have not had any significant change in my medications or severe mood swings in dealing with my bi-polar disorder.*
- *I am able to express myself. I have courage and I am prepared to take risks. I do what is best for me to function in a healthy way.*
- *I am less depressed than I was and have made a better adjustment to living alone.*
- *These classes have been helpful in that they have taught me to speak more freely on my feet, to plan ahead what I have to say, and to say it with more confidence and clarity than before.*

Future Directions

When participants were asked for suggestions regarding future seminars, responses were:

- *More debating sessions*
- *A list of books to read on mental fitness*
- *More on how to address negativity in friends*
- *Could Dr. Whittlesea come back? When I left this room, I felt so great -- everything he said was what I was feeling.*
- *What about having everyone reading a book that we would all read and discuss -- as long as it is about mental fitness.*
- *I'd like to see more short presentations on a preset subject.*
- *I would like to see more sessions with students from the university and guest speakers.*

CONCLUSIONS

We know that mental fitness is the key to vital and productive living in a healthy society for all ages. We know because our research documents the myriad benefits of the program and its impact on individual lives. We know because we see the transformation, the renewed energy, optimism, and enthusiasm for life. Furthermore, we know that the benefits of a mental fitness program go far beyond those taking the program -- participants contribute more to their centre and the wider community. For example, the Chair of the Mental Fitness Committee, Dot Josey, who was part of the original research study was the recipient of Simon Fraser University's First Senior Leadership Award (2001) for outstanding contribution to the university and the community -- and she will tell you at 79 years of age that she is more mentally fit today than she has ever been. Another Mental fitness program participant, Freda Hogg, was recently awarded the Governor Generals Canadian Caring Award for her volunteer contribution. And she will tell you,

Our mental fitness classes have taught me the value of learning. What I have learned makes my memory stronger, all of which contributes to my over all happiness. In conclusion, because I have learned to concentrate, my memory is more acute, my life immeasurably richer, and I approach each day, sparkling with tremendous enthusiasm for living life to the full.

Every member of the mental fitness class during the past nine years

is contributing to what Professor Baltes at the World Congress described as "a transformation of the experience of aging". They are living testaments to the success of the program, and role models of healthy, successful, productive aging. They give hope and inspiration to all for a better future in this new age of the "continuously developing mind".

Everyone, regardless of age, needs a purpose in life -- everyone has a dream. Presenting at the World Congress was initially a dream for participants in the program, and it became a reality because of a collective commitment and desire to contribute knowledge and experience to others. The group's commitment remains strong. The challenge for 2002 is to secure continuous funding so that the Mental Fitness Seminar group can continue and others can benefit from the program, a challenge that the group is embracing with confidence and hope for the future.

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WENDY THOMPSON has a Master's degree in Educational Gerontology. She is a teacher and author, recently co-authoring *Leadership for Older Adults: Aging with Purpose and Passion*. Wendy has a unique and tested ability to empower, inspire, motivate and educate. Formerly a competitor on Canada's Olympic Speed Skating Team, Wendy promotes excellence in every aspect of healthy aging.