



Learning to take actions for mental fitness and wellbeing in older age

The MENTA50+ Handbook
(Final Version)

© Published 2014 by the MENTA50+ Consortium

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www.menta50plus.eu

Layout & Design: Gert Lang

ISBN: 978-963-89960-3-9

Funded by:

Education, Audiovisual and Culture Executive Agency (EACEA), Lifelong Learning Programme

[Project N° 527515-LLP-1-2012-1-ES-GRUNDTVIG-GMP]



Lifelong
Learning
Programme

“This project has been funded with support from the European Commission. This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information therein.”

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Disclaimer

It is intended that this handbook “Learning to take actions for mental fitness and wellbeing in older age” (MENTA50+) will be of benefit to users. It is suitable for facilitators who are open to deliver, conduct and organise health promoting activities on active ageing and mental fitness for older people. However, please note that all persons using the handbook and its materials and exercises do so at their own risk. Users of the handbook and materials are liable for any harm occurring as a result of misuse or inappropriate use. The authors cannot accept any responsibility for any harm caused to anyone using this material.

Executive Summary

The aim of the **MENTA50+ project** is to contribute to the mental fitness of an ageing society. This handbook “Learning to take actions for mental fitness and wellbeing in older age” was developed 2013 and 2014 for interested stakeholders who intend to promote mental fitness and mental wellbeing of older people.

Therefore, the **handbook** serves as a theoretical and practical background for various user groups on an individual and organisational level. It will help to deliver activities for older people on mental wellbeing and fitness. The handbook also serves as the background information for a 30 hour health promoting course activity.

This handbook includes a detailed definition of the framework and contents based on mutual consensus of project partners and their national advisory boards. More specifically, the **handbook structure** is:

1. Introduction to the handbook
2. Generic section: Why promote mental fitness in ageing societies?
3. Specific section: How to promote mental fitness of older people?

The generic section provides a short introduction to the topic of **cognitive stimulation** and also has some reference to **social interaction**. The specific section is designed as a Toolbox which gives **practical examples on** how to promote mental fitness, presented through five modules.

These five modules are:

- Mental fitness
- Stress management and mental fitness
- Social networks and mental fitness
- Nutrition and mental fitness
- Physical fitness and mental fitness

Each module is briefly introduced theoretically. Moreover, for each module eight different exercises and activities are described in detail so that a facilitator can put them into practice with older people. Finally, there is a short glossary of important terms and bibliography of references included in the handbook.

1 Introduction

1.1 About the handbook and its objectives

This handbook was developed by the MENTA50+ project. It provides a theoretical and practical background for interested stakeholders (e.g. facilitators) who would like to promote, enhance and protect the mental fitness and mental wellbeing of older people. The handbook will help them to deliver activities for older people on mental wellbeing and fitness. In addition, it provides the background for a 30 hour learning activity, e.g. a training course.

1.2 Target groups and ethical considerations

The **primary target group** of the handbook are facilitators – such as providers, community centre leaders, practitioners, social workers, trainers, teacher, health assistants, psychologists – and all those who are connected in some way with older people and who are open to deliver, conduct and organise activities on active ageing and mental fitness for older people. Facilitators need not necessarily be trainers but they should be familiar with the older generation, with basic insights into gerontology and minimum background knowledge and skills regarding mental fitness. Therefore the **secondary target group** are (older) people over 50 themselves who might find useful guidelines and exercises/activities for their own use (N.B. exercises which could be done without facilitation will be indicated by an icon). The **tertiary target group** are decision-makers, stakeholders, e.g. on European (EU), political, local, regional levels.

It should to be acknowledged that the exercises were developed for healthy older people, and NOT for physically disabled or cognitively impaired, but the needs of the population have to be taken into account and respected. Moreover, the issue of ethics in mental health promotion is very important. Therefore, the facilitators are always responsible for promoting a professional care giving relationship and have a duty of care towards their clients. When exercises will be implemented, they should at least involve issues of confidentiality and anonymity and the implementer has an obligation to ensure that no harm comes to anyone through implementation of the exercise. Thus, the issues of beneficence and non-maleficance (do no harm) are important. It is also necessary to obtain informed consent from all those involved in the project.

1.3 Theoretical framework and methodology

MENTA50+ is about mental fitness embedded in the broader concepts of mental wellbeing, active/healthy ageing and related concepts. Holistically, these form the key elements of a general framework of the handbook.

In summing up the scientific discussion about mental health and wellbeing, Nyquist and colleagues recently concluded that it is a complex phenomenon and term with many different dimensions and connotations. There is no agreed definition of these concepts to date, e.g. because of different disciplinary approaches and policies (76). In bringing together the discussion, the Foresight Mental Capital and Wellbeing Report (63) defined **mental wellbeing** as “*a dynamic state that refers to individuals’ ability to develop their potential, work productively and creatively, build strong and positive relationships with others and contribute to their community*” (Ibid., p. 19). Similar policy documents (113) also defined the terms as a “*a dynamic positive state of mind and body, feeling safe and being able to cope with normal stresses in life, and connect with people, communities and the wider environment*” (76).

Regarding the core concept, **mental fitness** can be defined as a state or ability of emotional and psychological wellbeing in which an individual is able to use his or her cognitive and emotional capabilities, function in society, and meet the ordinary demands of everyday life. Mental fitness “*is a condition of optimal functioning that [...] includes goal setting, critical thinking, creative thinking, learning and memory, expressing ideas clearly, and developing a positive mental attitude that includes: optimism; mental flexibility; self-esteem and confidence; and a willingness to risk*” (27).

In short, **mental fitness and wellbeing** can be described as positive approaches to health which emphasise a holistic state of complete physical, social and mental wellbeing and not merely the absence of disease or illness. Taking active and healthy ageing into account, it can actively contribute to better mental fitness. This is achieved through a process of active ageing which includes topics such as nutrition, social inclusion and participation, physical activity and which can be promoted by means of education and lifelong learning. This highlights the key aspect of how individuals can be educated, how they can learn and how they are able to adopt healthier lifestyles. Therefore, concepts of andragogy are needed to take into account (64).

Methodologically, the handbook is developed under consideration of the findings by

- integrating researched approaches and good practices in the field of mental fitness promotion and protection (i.e. programmes, services, and activities, provided at www.menta50plus.eu),
- taking views and advice of the national advisory boards (held by MENTA50+ project partners in Austria, Cyprus, Greece, Hungary, Italy, Spain, UK and Israel), and
- considering scientific literature and previous project experiences (e.g. Mindwellness, Mental Health Promotion Handbooks, Keeping Fit in Later Life (Kifli) among others).

MENTA50+ aims to contribute to behavioural change in the target groups in order to promote active and healthy ageing, a better mental fitness and wellbeing of older people through empowerment, participation, learning/education and training. The MENTA50+ handbook seeks to achieve this by raising awareness, (theoretical) knowledge, and (practical) skills regarding the mental fitness of older people (50).

1.4 Structure and how to use the handbook

The handbook is structured in the following way: First, the generic section and theoretical chapter 2 inform the reader as to **why promoting mental fitness is needed in ageing societies**. Based on scientific evidence it will be argued that the main issue regarding ageing societies is about cognitive stimulation. A classification of cognitive stimulation on the basis of cognitive ageing-competence training will therefore be developed and explained. This includes functions which often decline in the process of ageing. In the context of learning, different levels of social interaction in order to promote exchange between learners will be referred to.

Second, the specific section and practical chapter 3 deals with practical activities about **how to promote the mental fitness of older people**. These are presented through five different modules, one about mental fitness itself and four other related key topics:

	Module 1	Mental fitness
	Module 2	Stress management and mental fitness
	Module 3	Social networks and mental fitness
	Module 4	Nutrition and mental fitness
	Module 5	Physical exercises and mental fitness

In each **module** a short summary, some definitions and its importance for mental fitness are outlined. The main content incorporates a number of relevant **examples** which are presented in detail and structured through the use of descriptors designed to be helpful for facilitators to prepare and implement the exercise in practice.

1.5 Acknowledgements

The MENTA50+ handbook was developed by a **multinational team** from Trebag Ltd. (Hungary), Universidad de Málaga (Spain), Research Institute of the Red Cross (Austria), Università delle LiberEtà del FVG (Italy), University of Chester (United Kingdom), IDEC S.A. (Greece), European University Cyprus (Cyprus), and Modi'in Multi-Disciplinary Center (Israel). Special thanks should go to the **National Advisory Board** members for their help and guidance. The MENTA50+ project was funded by the EACEA (Education, Audiovisual and Culture Executive Agency) via the **Lifelong Learning Programme** [Project N° 527515-LLP-1-2012-1-ES-GRUNDTVIG-GMP] of the EC.

2 Why promote mental fitness in ageing societies

2.1 Cognitive decline in older age

If our brains were performing well during our whole life this handbook wouldn't be necessary. De Bot and Makoni (32) consider that **cognitive performance** is part of a lifelong flux including both development and decline. People's biological, psychological and social dimensions change over time, which is general, but the effects of these differ among individuals.

According to researchers the "negative" effects of ageing affect areas where rapid response to uncertain, varied stimuli is required and in occupations involving high physical workloads, while in other areas, knowledge and experience may offset cognitive impairment occurring at elderly age.

Capacity decline occurs as the size of nerve cells diminishes the number of dendrites and synapses decreases and the degeneration of the myelin sheath can also be observed. Compared to young age groups the elderly usually perform more poorly in tasks involving working memory (87), attention (14), planning (95), cognitive control (15), fluid intelligence (19) or inhibitory processes (57):

- Memory shows degradation especially when parallel tasks requiring information processing has to be done.
- Motor activities performance weakens Age-related changes which affect the thinking process itself, for example in case of inferential tasks involving multiple premises performance deteriorates.
- Fluid intelligence weakens due to the deceleration of processing.
- Mental slowdown occurs because neural inhibition is slower and less effective, hence intensifying the interferences (either novel or retrieved from the memory) between information being processed.

In age-related performance, **decline is not inevitable**, at least not in all areas (29). Basic skills (e.g. cycling), which we learn implicitly manifest quite strong resistance to decline with age, but the more complex skills (e.g. use of a foreign language) must be practiced, otherwise they fade. Many skills, capabilities and environmental factors can serve as resources to hinder cognitive decline in old age: working memory and long term-memory capacity, attentional processing and its speed, education, learning, social and linguistic environment, and bilingualism (13; 32). Intellectual activity – be it crosswords, active learning or language learning , plays a causal role in the compensation of age-related deterioration in attention, learning, thinking (cognitive) processes, e.g. (23). Compensatory efforts to counteract functional impairments were found to increase up to the age of 70 years, contributing to the experience of successful aging (84).

2.2 Cognitive stimulation of older people

Cognitive stimulation is defined as the group of techniques and strategies aimed at optimising the performance of cognitive skills and functions through the subject's involvement in a number of planned activities requiring them to use those skills, for instance including memory, reasoning, language, attention, concentration (51).

Cognitive stimulation is based on what is known as “neuronal plasticity”, or “neural plasticity”. To that effect, there is numerous scientific evidences confirming the fact that the human brain is in a permanent process of activity and transformation through all its life. Thus, the brain is an extremely dynamic organ that, according to the person's relationship with their environment and experiences, constantly changes its neural circuits. This **dynamic nature of the brain** allows the central nervous system to carry out functional adaptation through the person's life, so not only will they acquire new learning and experiences, but they will also minimise structural or physiological impairments, caused by injuries or degenerative processes affecting its functioning (20; 50; 92; 97).

This phenomenon becomes more relevant in dealing with the **ageing process** and the neuropsychological changes it entails. It should be noted at this point the invaluable contribution of the Italian neurologist Rita Levi-Montalcini, who received the 1986 Nobel Prize in Physiology or Medicine for her discoveries related to NGF (Nerve Growth Factor). Thus, this author stated that, despite lamentations and ill omens on ageing and ageing-related loss of mental faculties, the brain can continue to function even at an advanced age. In this regard, modern neurobiology has proved that, thanks to neuronal plasticity, the loss in the number of neurons can be perfectly balanced by an increase in dendritic branches and connections linked to the use of alternative neural circuits (5).

Cognitive stimulation, through intentional activation of neural circuits involved in the development of higher mental processes, allows us to compensate aging-related cognitive deficits. However, a thorough design of the proposed activities and exercises become necessary, given the multiplicity of cognitive functions and abilities involved simultaneously in our mental activities. This planning and design will allow stimulating those functions and competences to be preserved or improved. Hence, it is essential to have an adequate **classification of the cognitive areas** to be stimulated and the specific competences within these fields. For this purpose, we have developed an ad hoc classification based on García (51) and virtual platform ActivaLaMente (funded by “La Caixa” Foundation) (77). The latter case, offers a programme with over 1,200 exercises aimed to work on six major cognitive areas: language, memory, attention and concentration, visual processing, auditory processing and executive functions. A further classification contributed by García (51), organised the functional architecture of the mind around several major areas of cognitive competences: language, executive functions, reasoning, memory, perceptual abilities, praxes and visuo-spatial orientation.

Based on this and our own expertise, a **cognitive stimulation classification for ageing-competence training** is presented in the table below. The table highlights six cognitive areas (A) according to competences in practice (C) for which examples are provided (E).

Table 1: Classification of cognitive stimulation for a cognitive ageing-competence training

Area (A)	Competence in practice (C)	Exercise examples (E)
Memory	“Short-term” (working) memory	Repeat a shorter/longer telephone number after hearing it.
	Long-term memory	Try to recall the names of your primary/secondary school classmates. What colours/which clothes did you wear yesterday or the day before?
Language	Language comprehension skills	Gap filling exercise related to a song.
	Language production skills	Story drafting based on a motto. For example we can ask learners to work out a short story which happens between to persons on the public transport. (Note: in native and foreign language.)
Executive functions	Initiative (fluency)	Find 10 cities with names starting with letter “C” in 2 minutes.
	Categorisation/ sorting	Organize into categories a group of disorganized words. For example: Lion-Dog-Chair-Skin-Bed-Vase-Higado-Hat-Tortoise-Glow-Lamp-Finger-nails-Shoes-Shirt-Hamster-Table-Hair
	Seriation	To organise into order several daily routines: to check the shopping list; go home; to pay; to put back the trolley; to make a shopping list; to put the purchased goods into a bag; to get the list and look for the goods.
	Planning	You want to spend your holiday in New York. List the necessary steps of tour organization in logistic and logical order.
Reasoning	Problem solving	To arrange the coloured items that there no two adjacent pieces are the same colour. Switch any two pieces simply by dragging one onto another. Continue until all adjacent colours are eliminated.
	Abstract thinking	Define the meaning of the word “peace” or “friendship”.
	Logical reasoning	Imagine, you won in the lottery. What would you do with the money? Explain your decisions.
Attention	Selective attention	Listen carefully to your partner while you also hear the television /radio/other people talking about the same subject.
	Divided attention	Older adults are asked to sing a song and in the meantime they need to read a book.
Sensation - perception	Discriminant perception	a) Compare two images & check if there is any difference between them. b) Compare sounds (e.g. phonetically very similar words). c) Compare tactile inputs (objects, materials).
	Visuospatial ability	Location of the source of a sound while eyes are closed.

2.3 The role of social interaction

There are several strategies to **promote exchange between learners** which focus on the importance of language, communication, and interaction in learning. Therefore, there are specific teaching strategies needed to foster and guide communication, including the role of questioning, group work and managed discourse.




A facilitator (i.e. trainer, teacher) can assist the learning process guiding and enriching the interaction with older learners in several ways: One way is to **manage the dialogue/discourse** between older learners either in a small or in a larger group is to structure exchange with purposeful questioning and listening geared towards a deeper understanding of where learners are and can provide assistance through interventions in order to assist cognitive growth. The interaction can be on several levels, through which learners are connected, exchange or even collaborate. Another way is to assist the learners to work in a **collaborating social environment** through which their learning is strengthened, reinforced, and refined.

These are enablers for **transformative learning**, a process by which we transform our frames of reference, the things we take for granted i.e. our perspectives on life, habits and mindsets. Transformative learning then involves participation in what is called *constructive discourse* which becomes the forum for using the experience of others, reflecting and learning and then taking actions or making decisions based on the resulting insight. This participation through dialogue with others (dialogic groups) is at the core of the transformative process, *“dialogue is the essential medium through which transformation is promoted and developed (...) the medium for critical reflection to be put into action where experience is reflected on, assumptions and beliefs are questioned, habits of mind are ultimately transformed” (103).*

By supporting and promoting older people to engage in these dialogic groups, **social exchange** takes place within four equally important spheres; intrapersonal, interpersonal, intragroup and inter group. Often more than one of these exchanges takes place at the same time. Wasserman (111) has identified four overlapping factors that can both enable and limit these transformative dialogic moments in groups:

- **Continuity of commitment and motivation** – group members provide a space to engage with others in critical reflection.
- **Curiosity and openness** – group constantly challenges us to discover something new about ourself and others.
- **Emotional engagement** – the telling of stories plays a key role, in sharing we feel heard and supported by group members.
- **Reflection and mutual sense making** – a new way of shared social meaning for the group, using this to take a new third person perspective on our own experience.

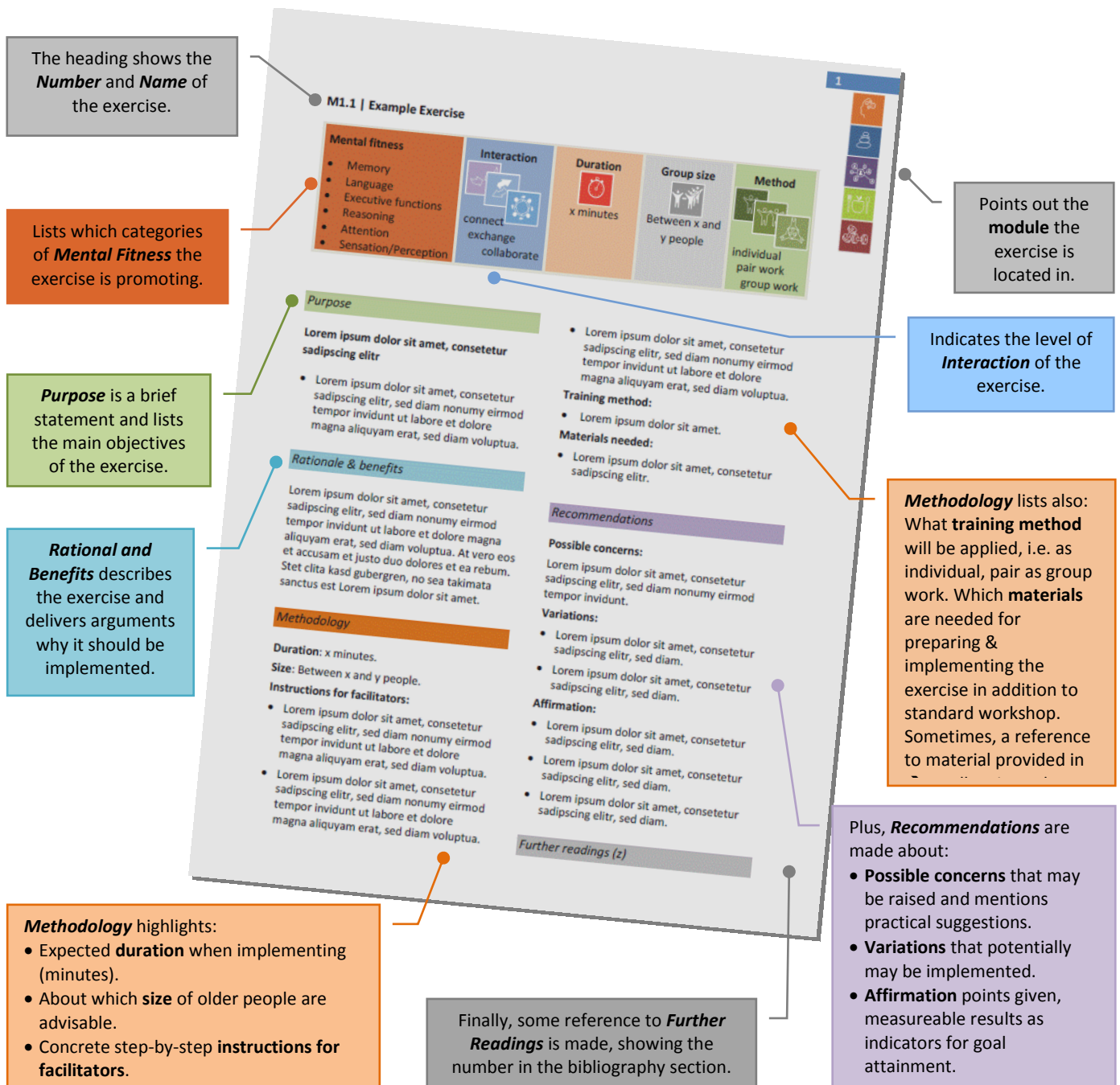
As older people participate in this process of social interaction, they (1) **connect** – come together with others to share experience, (2) **exchange** – give their own perspective and hear a variety of responses, (3) **collaborate** – relate to their peers as they work together, as a group “enterprise”. Many of the exercises within this manual promote and encourage engagement in structured interaction. Where this is so, these have been classified using the following criteria:

<p>Connection</p> 	<p>The exercise</p> <ul style="list-style-type: none"> • leads to recognition of others, • is strengthened by physical contact.
<p>Exchange</p> 	<p>The exercise</p> <ul style="list-style-type: none"> • is a two way communication process of listening and speaking, • may lead to changing own thinking.
<p>Collaboration</p> 	<p>The exercise</p> <ul style="list-style-type: none"> • is a shared activity within a group, working together for common interests or a task, • involves passing on and receiving thoughts, opinions and ideas from several people.

3 How to promote the mental fitness of older people

This chapter introduces the main topics to promote mental fitness, i.e. mental fitness in relation to stress management, social networks, nutrition and physical exercise. The main content is about practical activities on how to promote the mental fitness of older people in these areas. For each of the five modules 8 different exercises will be presented in a structured way.

In the figure below there is an example of an **exercise structure**:



For each module, a **mapping of all exercises** by main characteristics is provided in the tables below:

Module 1: Mental Fitness

No.	Module Name	Mental Fitness Categories						Interaction Categories			Duration	Group size	Method		
		Memory	Language	Executive functions	Reasoning	Attention	Sensation - Perception	Connecting	Exchanging	Collaborating			Individual	Pair	Group
M1.1	Learn to Learn	x	x		x					x	60	8-20	x	x	
M1.2	Utmost Att. Challenge	x	x			x			x		30	10-20		x	
M1.3	Leaders in the Dark		x				x			x	60	6-16		x	
M1.4	Scent of a Melody	x		x			x		x		60	10-15	x		
M1.5	Awesome Ads		x		x					x	60	2-20			x
M1.6	I Did It My Way	x	x	x		x	x		x		50	10-25		x	x
M1.7	Why Does It Happen?		x		x					x	45	10-20	x	x	x
M1.8	Creative Visualisation	x	x			x			x		60	5-20	x		x
	Total	5	7	2	3	3	3	0	4	4	30-60	2-25	4	5	4
	Rate (%)	0.6	0.9	0.3	0.4	0.4	0.4	0.0	0.5	0.5			0.5	0.6	0.5

Module 2: Stress Management and Mental Fitness

No.	Module Name	Mental Fitness Categories						Interaction Categories			Duration	Group size	Method		
		Memory	Language	Executive functions	Reasoning	Attention	Sensation - Perception	Connecting	Exchanging	Collaborating			Individual	Pair	Group
M2.1	Relaxation Mode				x	x		x			60	5-20	x		
M2.2	Which Tree Are You?					x	x			x	60	2-20			x
M2.3	I Can Feel My Heartbeat		x			x	x		x		60	5-10	x		
M2.4	Let's Laugh Together	x	x			x		x			30	10-30	x		x
M2.5	Up, Up, Up You Go!					x	x	x			45	6-20	x		
M2.6	Warm Your Senses/Body					x	x	x			60	1-20	x		
M2.7	The Power Our Thoughts		x			x	x			x	60	5-20	x		x
M2.8	Anti-tension Dance		x				x			x	30	6-18	x		x
	Total	1	4	0	1	7	6	4	1	3	30-60	1-30	7	0	4
	Rate (%)	0.1	0.5	0.0	0.1	0.9	0.8	0.5	0.1	0.4			0.9	0.0	0.5

Module 3: Social Networks and Mental Fitness

No.	Module Name	Mental Fitness Categories						Interaction Categories			Duration	Group size	Method		
		Memory	Language	Executive functions	Reasoning	Attention	Sensation - Perception	Connecting	Exchanging	Collaborating			Individual	Pair	Group
M3.1	What to Put in the Pot?		x							x	60	8-24			x
M3.2	Find Common Ground		x	x	x					x	60	8-18		x	x
M3.3	Narrative Café	x	x							x	60	5-10		x	x
M3.4	Picturing Words		x	x			x			x	120	4-22			x
M3.5	Sharing Sensations	x					x			x	90	5-25			x
M3.6	What, Why, hoW				x	x				x	60	4-15		x	
M3.7	Standing Your Ground		x		x	x				x	60	6-12			x
M3.8	Take The Big Yellow Taxi	x		x			x			x	120	6-24			x
	Total	3	5	3	3	2	3	0	0	8	60-120	4-24	0	3	7
	Rate (%)	0.4	0.6	0.4	0.4	0.3	0.4	0.0	0.0	1.0			0.0	0.4	0.9

Module 4: Nutrition and Mental Fitness

No.	Module Name	Mental Fitness Categories						Interaction Categories			Duration	Group size	Method		
		Memory	Language	Executive functions	Reasoning	Attention	Sensation - Perception	Connecting	Exchanging	Collaborating			Individual	Pair	Group
M4.1	Words Never Make Fat	x	x	x					x		30	5-15			x
M4.2	Eat Like Leonardo				x				x		30	5-10			x
M4.3	Smart Recipes			x			x	x			60	5-10	x		x
M4.4	A Proverbial Hunger	x	x		x					x	30	5-15			x
M4.5	Neither Fish Nor Meat	x		x				x			30	5-25	x	x	
M4.6	Eat the World	x			x	x	x			x	60	5-15	x		
M4.7	Pyramid Builders	x		x				x			30	10-20	x		x
M4.8	Mind Your Food Habits		x		x					x	60	8-20			x
	Total	5	3	4	4	1	2	3	2	3	30-60	5-25	4	1	6
	Rate (%)	0.6	0.4	0.5	0.5	0.1	0.3	0.4	0.3	0.4			0.5	0.1	0.8

Module 5: Physical Exercise and Mental Fitness

No.	Module Name	Mental Fitness Categories						Interaction Categories			Duration	Group size	Method		
		Memory	Language	Executive functions	Reasoning	Attention	Sensation - Perception	Connecting	Exchanging	Collaborating			Individual	Pair	Group
M5.1	Pass the Twine	x		x				x			30	5-20			x
M5.2	Dance of the Day	x		x			x		x		45	5-20			x
M5.3	Mirror, Mirror Tell Truth		x			x	x			x	30	3-20			x
M5.4	As many as Possible			x		x	x			x	30	10-20		x	
M5.5	Let's MOVE!			x		x	x			x	60	8-20	x		x
M5.6	Fill-in the Parts				x		x			x	30	10-20			x
M5.7	Find the Way			x	x		x			x	60	10-20			x
M5.8	Treasure Hunt			x	x		x			x	50	10-20		x	
	Total	2	1	6	3	3	7	1	1	6	30-60	3-20	1	2	6
	Rate (%)	0.3	0.1	0.8	0.4	0.4	0.9	0.1	0.1	0.8			0.1	0.3	0.8

Module 1 to 5: Summary Overview of 40 exercises

No.	Module Totals	Mental Fitness Categories						Interaction Categories			Duration	Group size	Method		
		Memory	Language	Executive functions	Reasoning	Attention	Sensation - Perception	Connecting	Exchanging	Collaborating			Individual	Pair	Group
M1	Mental Fitness	5	7	2	3	3	3	0	4	4	30-60	2-25	4	5	4
M2	Stress Management	1	4	0	1	7	6	4	1	3	30-60	1-30	7	0	4
M3	Social Networks	3	5	3	3	2	3	0	0	8	60-120	4-24	0	3	7
M4	Nutrition	5	3	4	4	1	2	3	2	3	30-60	5-25	4	1	6
M5	Physical fitness	2	1	6	3	3	7	1	1	6	30-60	3-20	1	2	6
	Total	16	20	15	14	16	21	8	8	24	30-120	1-30	16	11	27
	Rate (%)	0.4	0.5	0.4	0.4	0.4	0.5	0.2	0.2	0.6	30-120	1-30	0.4	0.3	0.7

N.B.: Some additional exercises are available online.



3.1 Module 1: Mental fitness

3.1.1 Introduction

Until recently, there was a widespread belief among neuroscientists that the human brain developed its functions (e.g. hearing, vision, fine and gross motor skills, emotions, etc.) during early childhood. Recent studies, however, have shown that the brain is in a constant process of revision and modification. As a consequence of this finding, some new terms were coined: neuroplasticity or brain plasticity. This means that thinking and learning processes can modify our brain structure and function, even in older age. Discovering that brains are malleable is without question a revolutionary finding in the field of neuroscience. This finding has caused researchers and also the practice field to know and better understand brain behaviour and cognitive functioning. Therefore, we need to be consciously aware of the relevance of mental fitness in order to maintain and improve our health condition.

WHAT IS MENTAL FITNESS?

The term mental fitness implies that mental skills can be maintained and even be improved through cognitive stimulation. This is based on the analogy with what happens with our physical condition, since it gets better as we regularly exercise our body. Additionally, the term mental fitness refers to the individual self-sufficiency capability. In other words, the term is related to the individual ability to think, plan objectives and take decisions that contribute to every person's emotional, social and physical development. The capacity for self-determination is affected by our mental condition. It is also vital to take into account the close relationship between poor health habits and the related potential of losing daily life's instrumental and basic skills. This loss of independence is just one of the consequences resulting from unhealthy behaviours, such as alcohol and tobacco consumption, overweight or mental and physical inactivity.

WHAT IS MENTAL FITNESS FOR?

Mental fitness essentially helps to maintain and stabilise cognitive functioning as long as possible and avoids cognitive impairment that possibly comes with ageing and occurs in people suffering from any type of degenerative dementia (cognitive rehabilitation). In this regard, some studies suggest that higher levels of education and intellectual activity increase the cognitive reserve and reduce the risk of age-related dementia. Accordingly, mental fitness activities put forward stimulation through a series of specific activities and exercises, to be performed on an ongoing basis, related to every cognitive area that is likely to be affected in the event of mental illnesses (memory, language, executive functions, reasoning, attention and concentration and sensation-perception). Implementing mental fitness activities on a regular basis will allow older people to prevent and/or slow down the onset of cognitive disabilities.








3.1.2 Activities and exercises

Number	Name
M1.1	Learn to Learn
M1.2	Utmost attention challenge
M1.3	Leaders in the Dark
M1.4	Scent of a Melody
M1.5	Awesome Advertisements
M1.6	I Did It My Way
M1.7	Why Does It Happen?
M1.8	Creative visualisation



M1.1 | Learn to Learn

Mental fitness <ul style="list-style-type: none"> • Memory (short & long-term memory) • Language (production, comprehension) • Reasoning (problem solving) 	Interaction  collaborating	Duration  60 minutes	Group size  between 8 and 20 people	Method   individual and pair work
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Purpose

Getting to know how we learn best

- To increase the learners awareness of personal learning style.
- To expose the learners to different dimensions that influences their learning.
- To increase the responsibility for their learning process.
- To raise the knowledge about how to control/navigate the learning processes.
- To strengthen the self-confidence regarding their learning ability.

Rationale & benefits

Familiarity with personal learning style can help the learner to find the best path for themselves. Learners will attain insights that will enable them to control their learning process and to improve learning effectiveness in a changing and challenging environment.

Acquiring knowledge and a sense of self-efficacy are key components in a person's mental coping. The increasing fear of the difficulty of adapting to a changing and dynamic reality that demands acquiring and applying knowledge deters many.

The exercise combines two worlds: Firstly, exposure to diverse aspects of learning, learning style, time and diverse contexts. Secondly, through success stories to acquire

self-confidence and improve self-efficacy (so called "Pygmalion effect") (83).

My learning sentence – is the learner's personal product based on success stories.

Methodology

Duration: 60 minutes.

Size: Between 8 and 20 in groups of 4.

Instructions for facilitators:

Part 1: Opening exercise (15 minutes):

- Facilitator should ask and encourage learners to identify skills/find one thing that will be probably new to other peers and what they could teach to each other (with a given time limit). Learners could be informed about this in advance.
- Learners are invited to team-up forming pairs and to teach each other the new skills (5-5 minutes/person).
- E.g. learners will teach each other to open a Facebook page/build a tower out of matches/repeat a section of a Shakespeare sonnet.
- Alternately, a "simple toy" made of several pieces can be distributed together with written operational instructions to each pair of learners. The learners will try to construct the toy, with one reading the instructions and the other implementing them.

Part 2 (20 minutes):

- Facilitator will emphasize to learners the direct connection between information

(the way people elaborate it) and the ability to handle new situations (how efficiently it is done).

- People are also different from each other in their learning style, although this is likely to change with circumstances. Most people have a dominant style of learning.

Part 3 (25 minutes):

- How do I learn a new subject? Facilitator will discuss the subject of the diverse learning methods (used in the past and “discovered” as their most powerful style according to the test results) with learners.
- Learners will work in pairs are asked to explain a simple thing (e.g. a food recipe and preparation process) to their partner in two different styles.

Training method:

- Individual and pair activity.

Materials needed:

-

Possible concerns:

Reading and writing skills are needed. If limited learners can interview each other.

Variations:

- Another option for starting the exercise is using one of the methods for mapping the individual's learning style.
- Learners could complete a questionnaire based on their experience with the opening exercise and the diverse learning processes they performed in the past. This will help them to identify their most effective learning method, if they learn easier in visual, auditory or kinaesthetic style. One of the most common is Kolb's learning styles questionnaire (60), although there are others, such like VARK questionnaire which can be completed online (108).

Affirmation:

- Learners will identify their own learning style and will use it for learning.

Further readings (18; 43-45; 60; 83; 108)





Recommendations



By Orna Mager



M1.2 | Utmost Attention Challenge

Mental fitness <ul style="list-style-type: none"> • Memory (long-term memory) • Language (production, comprehension) • Attention (selective attention) 	Interaction  exchanging	Duration  30 minutes	Group size  between 10 and 20 people	Method  pair work
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Purpose

Fostering focal and selective attention while listening to a specific topic in a “noisy” environment

- To foster attention and concentration processes.
- To practice selective attention in everyday life situation.
- To encourage and develop engagement for dialogue.

Rationale & benefits

This is an activity consisting of small face-to-face discussions of a selected topic with a chosen debate partner. In the form of one-to-one conversations, partner discussions are realized from a certain physical distance (1-3 meters) and simultaneously with other peers' debates thus creating distracting communication noise.

Learners are put into a situation where lots of stimuli reach their cognitive apparatus at the same time therefore they are urged to do some effective “brain gym” in real life situation, they need to focus and process information selectively.

Methodology

Duration: 30 minutes.

Size: Between 10 and 20 people.

Instructions for facilitators:

- Learners are divided into two groups and they are asked to form two lines (rows should be facing each other).
- Each will “team up” with another learner from the opposite line, but not with someone who is standing right in front (the cooperating learner should be positioned further away in the opposite line, standing 1-2 meters away).
- Facilitator indicates one given topic to learners which will be discussed in pairs further on. The debate can be introduced with a short article, poem, story, etc.
- Learners should speak about the given topic aloud and simultaneously with their partner (standing in opposite rows and keeping the indicated distance).
- E.g. each pair should exchange recipes. As everybody speaks about food, ingredients, preparation processes, it will be difficult to focus exclusively on the partner. (Time limit should be set).
- After the group talk exercise pairs double-check the understanding and memory of their recipes.
- The session closes with an open conversation about the experiences and difficulties with the participation of everybody.

Training method:

- Pair activity.

Materials needed:

- No special needs.

Recommendations

Possible concerns:

The exercise requires effective concentration, clear and concise communication in order to be able to change ideas or teach each other something within the given time limit.

Should any of the learners suffer a hearing limitation, it is advised that the facilitator places him/her near and facing their partner; likewise, appropriate tone of voice and vocalisation should be used. This exercise might be also difficult for those who have visual limitations.

Variations:





- Depending on the group and their interest topics can vary, for instance, news, leisure, culture etc.
- Partners need to teach a song or a poem to each other.
- Facilitator may give short articles, poems, jokes or information cards which learners need to “teach” to their partner.

Affirmation:

- It refreshes, awakens the mind and forces the learner to be “fully present”.
- Provoked laughter and positive alertness.



M1.3 | Leaders in the Dark

<p>Mental fitness</p> <ul style="list-style-type: none"> • Language (production, comprehension) • Sensation – Perception (discriminant perception, visuospatial ability) 	<p>Interaction</p>  <p>collaborating</p>	<p>Duration</p>  <p>60 minutes</p>	<p>Group size</p>  <p>between 6 and 16 people</p>	<p>Method</p>  <p>pair work</p>
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Purpose

Allowing the learners to use less dominant senses during movement

- To trigger other sensory modalities and other regions in the brain.
- To develop feelings of trust and confidence in a partner and to rely on the partner for guidance.

Rationale & benefits

"Leaders in the Dark" is an activity which is designed to increase the mental "range of movement" of the brain. By this, the brain becomes more flexible and open to challenges.

When a learner is led with closed eyes they will use their less dominant senses such as hearing and touch in order to navigate his way. Thus, it will activate other parts of the brain that are not usually operated while walking with open eyes. This activity can also improve overall sense of wellbeing, create a more receptive attitude and improve body awareness and reflexes.

The person led on should build trust and move cooperatively in order to progress. Effective communication is key to this activity. Learning how to give instructions, thinking fast and being clear and accurate is another quality one should acquire.

This exercise is based on the "Neurobic method" – a training method for keeping the brain active and healthy. Neurobics encourages nerve cell stimulation by creating

new patterns. Involving the five senses to do an ordinary task activates new brain circuits and enhances the nerve impulse required to formulate new links between different types of information.

Methodology

Duration: 60 minutes.

Size: Between 6 and 16 people.

Instructions for facilitators:

- Introduction: a short introduction of the facilitator/s, explaining the rules of the game.
- Learners divide into pairs. One person is blindfolded. The other person is the "leader" and should lead the partner around the room (and even outside the room if possible) and expose him/her to different touch (let him touch a plant, for example) and smell (coffee, perfume, fruits, biscuits, flowers, etc.).
- Group Discussion: further thinking, self-evaluation: How did you feel with your eyes closed? What senses have you used? What helped you to continue? Final round: Have you trusted the leader? Why? What helps developing trust in life?
- Summary of the activity: Relating to the way we interpret the intensity of the senses and our need in giving and receiving trust. Ways of establishing an atmosphere of mutual trust and regard.

Training method:

- Pair activity.

Materials needed:

- Arrange a room with some obstacles (some chairs, boxes, etc.).
- Prepare some scarves to blindfold half the learners.
- A sensory stimulation kit (perfume, coffee, fabrics, etc.).

Recommendations

Possible concerns:

Safety tip: The leaders will proceed with caution and stay alert to obstacles on the way. Provide warning and information on time.

Variations:

- Performing this activity in an unfamiliar surrounding and testing the differences in terms of confidence and recognition.
- Another option is to do the activity without speaking. The leader will lead his partner by hand.

- Using a sensory stimulation kit. Add touch, sound and smell to the activity with a variety of items.
- This activity may precede Scent of a Melody (M1.4).

Affirmation:

- Learners will indicate change in their behaviour the day after the exercise. They will be encouraged to repeat the exercise in new ways, such as showering or eating dinner with closed eyes.
- Involving more senses in everyday activities will challenge the brain on many levels.





Further readings (10; 37; 70; 98)



By Orna Mager



M1.4 | Scent of a Melody

Mental fitness <ul style="list-style-type: none"> • Memory (long-term memory) • Executive functions (categorisation) • Sensation – Perception (discriminant perception) 	Interaction  exchanging	Duration  60 minutes	Group size  between 10 and 15 people	Method  individual work
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Purpose

Remembering melodies in connection to smells

- To provide the brain with the opportunity to construct new networks of communications, with the help of a surprising combination of sounds and scents.
- To improve memory through the sense of smell.

Rationale & benefits

The sense of smell plays an important role in memory. Connections between types of information based on smell are created quickly, and survive longer, compared to those based on other senses. The sense of smell is linked to parts of the brain that are involved in processing information and storing memories.

Methodology

Duration: 60 minutes.

Size: Between 10 and 15 people.

Instructions for facilitators:

- Presentation of the subject: the sense of smell and its role in life.
- Facilitator will distribute the first container with a fragrance and play the first musical piece. While doing so, and for 2-3 minutes, the learners will smell the

container (and can do so with their eyes shut).

- Facilitator will collect the containers pertaining to the first round, and distribute a second container.
- Facilitator will continue thus with five fragrances and with five musical pieces.
- In this round each learner will talk about an experience connected to smell.
- Facilitator will distribute a container in which there is some fragrance (the same to all learners), and the learners will be asked to identify which musical piece accompanied that fragrance, and so on for all the containers.
- Learners will compare the results. Did they remember the musical pieces according to the fragrance?
- Learning, summary: Regarding the connection between fragrance and memory.

Training method:

- Individual.

Materials needed:

- Five containers with natural fragrances such as coffee, lemon, chocolate, mint, tuna, vanilla, etc.
- Five musical pieces to be played, preferably of different styles such as e.g. pop music, classical music, a children's song.

Recommendations

Possible concerns:

Making sure that no learner is allergic or sensitive.

Variations:

- The same activity can be conducted with a combination of taste and smell (with the source of the fragrance being edible).
- Five pieces of text can be read (and perhaps include quotations from poems or idioms), in which case the learners will identify the musical piece or section of the relevant text at the examination stage.

- May follow Leaders in the Dark (M1.3)





Affirmation:

- Learners will be able to testify to their ability to remember and pay attention to details, and the degree of improvement.

Further readings (37; 70; 98; 115)



M1.5 | Awesome Ads

<p>Mental fitness</p> <ul style="list-style-type: none"> • Language (production, comprehension) • Reasoning (problem solving, logical reasoning) 	<p>Interaction</p>  <p>collaborating</p>	<p>Duration</p>  <p>60 minutes</p>	<p>Group size</p>  <p>between 2 and 20 people</p>	<p>Method</p>  <p>group work</p>
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Purpose

Writing ads in an innovative, creative way

- To enhance practical use of writing.

Rationale & benefits

Creativity is a key to openness and flexibility in everyday life. New situations are inevitable as they naturally make part of our life. In order to be able to give effective answers in a possibly stress free way but effectively, it is useful to rely on our creativity.

The exercise trains our creativity and also requires a change of perspective from learners focusing solely on visual, tactile, emotional or auditory aspects.

Moreover, the exercise concentrates effective communication and creative language use which are also important bases of successful interactions.

Methodology

Duration: 60 minutes.

Size: Between 2 and 20 people in working groups from 2 to 4 people.

Instructions for facilitators:

- Facilitator invites learners to form small groups.
- Each mini-group is given 3 advertisements chosen from a local newspaper. The three advertisements should represent different fields of interest (such as real estate, consumer product or dating).

- The groups are asked to re-write the ads in a creative way, considering that no information should be lost, but extra information might be added.
- Group members need to change the original stylistics innovatively, e.g. using exclusively emotional, tactile, visual or auditory adjectives and descriptions.
- The new ads should focus on catching attention and reaching the practical business goal (selling or convincing).
- Once each group is ready, the re-styled ads should be presented to the other groups who will score them based on creativity and efficiency (1 to 10 points).

Training method:

- Working in small groups (2-4 people).

Materials needed:

- A local newspaper containing ads /computer with internet access, technical possibility to reach online newspapers.
- Empty sheets of paper for writing and scoring / computer based document editing.

Recommendations

Possible concerns:

-

Variations:

The exercise can be based on online work and computer use as well. In this case learners are asked to surf the web and collect 3 online. The facilitator will invite them to re-






write the original ads following the above mentioned instructions but using computer.

Affirmation:

- Peers' scoring: The ads with the highest peer scores can be advertised online in a free advertising forum.



M1.6 | I Did It My Way

Mental fitness <ul style="list-style-type: none"> • Memory (short-term) • Language (production, comprehension) • Executive functions (planning) • Attention (selective) • Sensation – Perception (visuospatial ability) 	Interaction  exchanging	Duration  50 minutes	Group size  between 10 and 25 people	Method   pair and group work
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Purpose

Improving individual skills at spatial orientation

- To improve individual skills regarding the cognitive function of spatial orientation.
- To raise the awareness of spatial orientation and the importance of changing habits (going out of everyday routine and varying the axes of movement).

Rationale & benefits

Spatial orientation is one of the basic abilities we all need. One of the first signs of dementia is the loss of this ability.

A person who does not feel confident in the ability to move from one environment to another is a person whose metabolic ability is liable to be harmed, to sink and to mean detachment from surroundings.

Brain practice that includes planning alternative routes of movement and providing a detailed three dimensional description of the environment activates several essential functions simultaneously in the human brain.

The exercise contributes to maintaining and developing the learner's ability in this regard. The exercise illustrates to the participant the need for a uniform world of concepts shared with the surroundings (What is the right side?

Mine or yours? What is high?). The exercise emphasises the need to be aware and attentive to details that characterise the close and the distant, and the importance of the change.

Methodology

Duration: 50 minutes.

Size: between 10 and 25 people (in small groups).

Instructions for facilitators:

Stage 1: Warm-up exercise (10 minutes)

- Learners are asked to form pairs.
- A blindfolded volunteer from each pair is led to one of the corners of the room or outside yard. The other participant should lead by giving easy instructions related to/or combined with orientation, e.g. right or left, North, S, E or W, high or low.
- E.g. in a room: the chair represents north and the sofa represents south. Knowing this, turn towards east. Or: "What am I facing now, your back or your front, if my right is not your right?" Turn to (my or your) right and walk ahead 4 steps."
- The pair should reach a set goal, e.g. the opposite corner following instructions.

Stage 2: (15 minutes)

- Learners are divided into small groups or they can work alone. Facilitator distributes a map (printed or online map of the neighbourhood/town) to each

group/learner and asks them to plan a walking route between two familiar points (e.g. from the commercial centre to the town hall, etc.) and to mark it on the map:

1. Each group will choose a preferred route of movement, and will indicate it on the map.
2. Facilitator will ask some of the learners to explain their choice and personal preference for the route chosen (why? e.g. short/safe/familiar)

Stage 3a: Detailed description of the route of movement; small groups activity (20 min.):

- Learners will divide in groups of four. Each group will describe the route in 2 ways:
 1. with simple explanations containing basic directions: left, right, south, north, e.g. after walking a few minutes, we see the Art Gallery to our right.
 2. with more complex descriptions: at the junction of the roads where there are trees and flowers, I see to my right a large white sculpture of a woman, Opposite me is a large roundabout with a fountain, above there is a signpost, on the left, below, there is a flight of steps. After walking a few minutes, we see the National Bank to the left, on which there is an orange sign.
- Thus along the route learners will present as many items as possible only from their memories.

Stage 3b: (20 minutes)

- Learners are divided into pairs. They realise an imaginary guided tour in another city (e.g. Rome). They are asked to visualise themselves being there (or in another city they have visited in the past) and to speak about the monuments, highlights to their partner.

Training method:

- Pairs in small groups (4-5)

Materials needed:

- Printed or online maps, pens.

Recommendations

Possible concerns:

Exercise may prove difficult for some individuals, so pair-work recommended.

Variations:

- In good weather the groups can walk along the chosen path (stage 2).
- Facilitator can recommend to the learners to "adopt" the exercise once a week at least – to choose a route of movement and to try describing it in the greatest detail without getting up from the chair. Facilitator will allow learners to tell funny stories at the beginning of the meeting (e.g. how I didn't find my car in the parking bay, how I didn't know how to return to the hotel abroad).
- The humour that accompanies the stories enables breaking the ice, and emphasises the importance of brain practice to internalise relevant details in space.
- One may physically leave the field & note a three-dimensional detailed description of the route of movement. Nevertheless, it is important to emphasise the need to remember and describe the route orally.





Affirmation:

- The learners will assess the degree of awareness of details that characterise the immediate and further surroundings. Following the exercise, they will be aware of the need to alter their habits and vary their axes of movement.

Further readings (18; 43-45)



M1.7 | Why Does It Happen?

<p>Mental fitness</p> <ul style="list-style-type: none"> • Language (production) • Reasoning (problem solving, abstract thinking, logical reasoning) 	<p>Interaction</p>  <p>collaborating</p>	<p>Duration</p>  <p>45 minutes</p>	<p>Group size</p>  <p>between 10 and 20 people</p>	<p>Method</p>  <p>single, pair and group work</p>
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Purpose

Bringing up and examining a variety of hypotheses

To increase awareness

- amongst the learners regarding the need to raise hypotheses and create alternatives.
- of the importance of the "information processing" stage.
- of the need to examine a variety of hypotheses, reasons for the phenomenon and several modes of activity.

Rationale & benefits

The human tendency is to afford the phenomenon an explanation based on an event from the past and not to try to examine what is new. The ability for mental coping requires broadening the scope rather than being attached to past experience, because that might be a double edged sword in terms of mental coping.

The processing stage is key and important to the method. The information-processing model has three stages: Absorption – the stage responsible for the data gathering processes, Processing – which enables creating new information on the basis of given information, and Output – responsible for the processes of formulating the product and enables creating muscular or verbal output.

Each stage is characterised by diverse cognitive activities, and when these activities are not used a flawed cognitive function results.

The processing stage includes the ability to identify the existence of a problem, diagnosis clues, internalisation, speculation and their examination.

Furthermore, the group experience arouses other perspectives and contributes to the insight that interaction and synergy between people advances everyone.

Methodology

Duration: 45 minutes.

Size: Between 10 and 20 people.

Instructions for facilitators:

Stage 1:

- Facilitator presents a fact and asks such questions as: "According to police data, there is a rise in weekend road accidents in which drivers under the age of 21 are involved." Or "Why do you think this happens?" (Note: A newspaper article can be distributed that presents the facts, and the learners can be asked to raise hypotheses.)
- Facilitator draws the learners' attention to the fact that most people prefer to remain in the area with which they are familiar and comfortable when they seek reasons and raise hypotheses. Each learner will be asked to note his hypotheses on a form. (Note: The difference should be emphasised between a topic such as education and the hypothesis that the subject was a result of ongoing weakening of parental authority etc.)

- After learners have noted about five hypotheses they will group them in clusters (note: all the hypotheses dealing with education/enforcement/infrastructures/ alcohol consumption etc.).

Stage 2:

- Working in pairs, expand the list of hypotheses. Let us assume that each learner noted five hypotheses. After deleting those that are similar, one may expect the pair to have 15 hypotheses.
- The same thing will be done in groups of four, in order to reach at least 25 hypotheses. Finally, this group will mark the five main hypotheses.
- The exercise emphasises the need to raise hypotheses and the individual ability to be more creative in taking decisions, together with the ability to expand the "circle" with the help of the surroundings.

Stage 3:

- The pairs or the whole group together should try to come up with as many solutions as possible (using their creativity).

Training method:

- Single, pair and group.

Materials needed:

- A newspaper article.

Recommendations

Possible concerns: -

Variations:

- Learners can be asked to raise an additional common problem/challenge for discussion.
- Another option is to show part of a movie, and thereafter to ask why did it happen?
- The use of dramatic language: Some of the learners may be asked to dramatize a problem and stop with the question of, why is this happening.

Affirmation:

- The exercise should lead the learners to think "outside the box" and to increase their interest in raising hypotheses to solve problems that trouble all of us.
- It can also be seen as a way to advance organisational and human messages.





Further readings (18; 43-45)



By Orna Mager



M1.8 | Creative Visualisation

Mental fitness <ul style="list-style-type: none"> • Memory (short-term) • Language (production) • Attention (selective attention) 	Interaction  <p>exchanging</p>	Duration  <p>60 minutes</p>	Group size  <p>between 5 and 20 people</p>	Method  <p>individual and group work</p>
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Purpose

Memorising what you perceive by your eyes

- To foster attention and concentration processes.
- To stimulate the visual and short-term memories.
- To practice conversational skills.
- To encourage interaction in groups.

Rationale & benefits

This is an activity consisting of looking at pictures in order to obtain as much information as possible. Learners must describe as much as they recall from the picture.

People are more used to looking than to watching. Sometimes we experience difficulties in cataloguing visual details due to the fact we are unaccustomed to paying close attention to them and to spending time to observe our surroundings.

By taking notes of those details learners are able to grasp the essence of what is observed and to discover particulars that had passed unnoticed. Moreover, through observation people are able to compensate the vision changes that occur over time, as well as to promote the visual and short term memories.

Methodology

Duration: 60 minutes.

Size: between 5 and 20 in groups of 4-5.

Instructions for facilitators:

Warm up (15 minutes):

- Learners should be previously asked to bring images of past events, historical events, city or culture related photos or famous paintings that evoke emotions and memories in them. Facilitator initiates a group talk about the photos and related thoughts or memories.

Stage 1 (15 minutes):

- Learners will be explained that, divided into small groups, they must look at a picture and obtain as much information and as many details from it as possible.
- When their turn comes, each group will have 1 minute to examine the picture projected onto the screen by the facilitator.
- Once the projection of all pictures is over, the picture description stage will start. In the same order as the pictures were projected, each group will describe as much as they can recall from the picture.
- In order to encourage learners to describe the picture, facilitator may lead them by making the following questions: What do you recall from the picture? How many items or people appear in it? How would you describe the people appearing in it? What details would you foreground?
- Each element or detail recalled will score one point. The winning team will be the one recalling more details from the picture. A group's turn is over when their members cannot retrieve more details from the picture (4-5 min. per group).

- Recognition and compliments from partners will be the award for the winners.

Stage 2: Memory labyrinth based on Loci method (30 minutes):

- Facilitator shows a picture to learners (3 min.) and asks them to memorise as many details as possibly, but this time information should be organised in a systematic way. Learners need to arrange details into a “sequence in space”, not memorising it but also creating a route or story out of it.
- For instance, if details are the following: red skirt, 3 trees, a ponytail, a green umbrella and one black cat. Story: A woman with ponytail wearing a red skirt was walking towards the Three Trees Valley carrying a green umbrella and a black cat.
- Following the story-creating detail memorisation time each group will present their story to the other teams. It will be fun to discover how many different tales and routes can result from the same image.

Training method:

- Individual and group activity.

Materials needed:

- Computer, projector, screen (including connection cables) and a blackboard.

Recommendations

Possible concerns:

In case any of the learners is mildly visually impaired, it is advised to adapt the activity to their condition and to allow more time for the activity to be completed. It is also advised to control room lighting, to avoid glare and reflections and to place visually impaired learners as close as possible to the facilitator, the blackboard and/or the screen.

Variations:

- Time permitting, a second round of picture visualising may be performed. It is advised that each group’s contribution should be written on a flip chart, so that

all group members can see all the listed items, which avoids repetitions, and the score achieved.

- Stage 2: each group receives different images (the other groups won’t see which one) chosen from the warm-up pictures previously seen by everyone. Following the story-creating detail memorisation time each group will present their story to the other teams who will try to find out which picture has inspired the stories.

Affirmation:

- Performed in a friendly atmosphere, team working produces deep satisfaction among the members of the group.
- At the same time, a dynamics of competition between groups eases concentration in the activity to be done and generates enthusiasm and motivates their members.
- If performed regularly, stimulates observance and attention skills among its learners. It also enhances visual ability and helps to compensate the vision changes that occur over time.

Further reading (109)



By J. Jesús Delgado Peña



3.2 Module 2: Stress management and mental fitness

3.2.1 Introduction

“Stress is any emotional, physical, social, economic, or other factor that requires a response or change. Stress can be positive or negative. Ongoing chronic stress can result in physical illness. Stress has been theorized as a major contributing factor in many physical diseases” (72).

Three types of stress can be differentiated:

Normal stress	<ul style="list-style-type: none"> • When a situation or condition demands our reaction or response.
Harmful stress (distress)	<ul style="list-style-type: none"> • Normal stress that has become permanent, chronic situations.
Good stress (eustress)	<ul style="list-style-type: none"> • Helps individuals to meet challenges successfully.

WHAT IS THE IMPACT OF STRESS ON MENTAL FITNESS?

It is widely known that long-term stress has a negative impact on our health causing a numerous illnesses and diseases. Most commonly known are: heart diseases, depressed immune function, digestive problems, back and neck pain. What many people ignore is that stress also affects our mental fitness. It kills neurons and affects crucial functions of memory, reducing the mental performance. Stress damages the brain health and it is important, especially for older people, to understand the stress factors and find ways to minimise them.

HOW TO RECOGNIZE STRESS?

Stress affects different people in different ways. Some people show an acute reaction to stress. In others, the symptoms may appear over time, and may be mistaken for other health problems. The identification of stress can be observed in physical, mental, cognitive, behavioural and emotional signs.

Stress can cause different kinds of problems at the individual level. For example it can cause unusual and dysfunctional behaviour and contribute to poor physical and mental health. It has also physiological and emotional effects. Physiological effects are raised blood pressure, aches and pains, dizziness and lowered resistance to minor illness. Other signs of stress are also immediate body changes that may be associated with distress, such as changes in heart rate and breathing rate, muscle tension, nausea or vomiting. When under stress, people may have feelings of anger, frustration, anxiety or being out of control (96).



Table 2: Signs of stress

Physical signs	<ul style="list-style-type: none"> • rashes or skin irritation - susceptibility to allergies - excessive sweating • tension - tiredness - cannot relax - breathlessness - palpitations • nausea - headache - crying - clenched fists • indigestion - rapid weight gain or loss - recurrence of previous illness • frequent colds and other minor infections - constipation or diarrhoea
Cognitive signs	<ul style="list-style-type: none"> • inability to concentrate - muddled thinking - impaired judgement • less intuitive - mistakes - hasty decisions - less sensitive • difficulty to making decisions - short-term rather than long-term thinking • persistent negative thinking - worrying - bad dreams or nightmares
Behavioural signs	<ul style="list-style-type: none"> • increased drinking/ smoking - restlessness - reckless driving • lying - crying - shouting - belligerence - vandalism • passiveness or lack of interest - refusal to listen to advice - unsociability • using solutions known to be inadequate - criticism of others
Emotional signs	<ul style="list-style-type: none"> • irritability - tension - dissatisfaction • alienation - moodiness

HOW TO MANAGE STRESS?

The causes of stress can be many and varied, and can occur as a result of combinations of more than one stressor. First, you should identify the stress factor(-s) and eliminate those who have a negative impact on you.

There are several basic steps in stress management that could help you reducing stress causing factors. Some examples of such stress relieving techniques that you could implement daily on your own are (16; 65; 99):

Table 3: Stress relieving techniques

Look for your stress causing factors	Notice symptoms of stress	Exercise a lot and in varied ways	Do not be contented with stressful circumstances, look for improvements
Consider what is important to you	Set realistic goals for your life	Save your time and energy to concentrate on essential issues	Don't exceed your resources
Take care how you use your time	Learn to say "no"	Learn to concentrate on one thing at a time	Don't do everything yourself and alone
Do your hobbies without efficiency, speed and high targets	Organise your time so you have regular solitude and relaxation	Reward yourself	Trust and believe in yourself
Think positively and be optimistic	Keep your sense of humour	Be open and active, speak your mind and listen to others	Don't be aloof







3.2.2 Activities and exercises

Number	Name
M2.1	Relaxation Mode
M2.2	Which Tree Are You?
M2.3	I Can Feel My Heartbeat
M2.4	Let's Laugh Together
M2.5	Up, Up Up You Go!!!
M2.6	Warm Your Senses, Warm Your Body
M2.7	The Power of Our Thoughts
M2.8	Anti-tension Dance



M2.1 | Relaxation Mode

Mental fitness <ul style="list-style-type: none"> • Reasoning (logical reasoning) • Attention (selective attention) 	Interaction  connecting	Duration  60 minutes	Group size  between 5 and 20 people	Method  individual work
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Purpose

Overcoming stress in our everyday life

- To identify stress management techniques.
- To get in contact with one's inner need for effective coping and relaxation.

Rationale & benefits

There is one thing that is constant in our lives: we will always meet changes and challenges in our work or personal environment. New situations, problems and sometimes even intense positive emotions cause stress. In the everyday life sometimes we feel like "losing" ourselves. This exercise is a good way to think about how we manage stress in general and to recognise our strength and resources in managing it.

Learners will be immersed in the "world" of relaxation and mindfulness, through which they will have the chance to gain isolation from the everyday pressure and stress step by step.

Methodology

Duration: 60 minutes.

Size: Between 5 and 20 people.

Instructions for facilitators:

Part 1 (25 minutes):

- The facilitator introduces the session with a short input speaking about stress (eustress, distress, effects of stress on

physical and mental health) and the importance of stress management.

- Learners are asked to think about people (friends, family members, colleagues) who they find particularly good at managing their stress who seem fairly balanced, peaceful and harmonious most of the time and to describe these people to their peers in few words.
- Group open discussion based on this on what the secrets for being more harmonious and how these people manage stress
- Learners are asked to identify their own personal stress management means in their everyday life and to share useful hints and tips with peers.

Part 2 (25 minutes):

- Learners to create a circle. Comfortable sitting position is necessary. Facilitator introduces learners to an easy mindfulness relaxation exercise.
- During relaxation the facilitator should speak in a gentle voice, keeping a soft and slow rhythm.
- Start with a short, 5 minutes warm up (some movement will help learners to switch off and concentrate on their body)
- Go through the following – Script 1:
 1. "Twist your head gently, bringing right ear close to your right shoulder - without moving your shoulder upwards then repeat it to the left side. Keep on doing this for 1 minute."
 2. "Make 11 forward circles with your shoulders, then 11 backward circles;

move your shoulders upwards (right shoulder) and downwards (left shoulder) with maximum extension than change side. Speed up as much as you can, keep on doing this during one minute.”

3. “Make 11 gentle, big circles to your left with your whole chest, then 11 to right.”
- Facilitator invites learners to sit down in a comfortable position and take 3 deep breaths inhaling and exhaling through the nose, with the eyes closed.
 - Go through the following – Script 2
 1. “Get into a comfortable position. Step-by-step you will be able to become completely relaxed while still staying awake. At the first time it might be difficult, with practice it will be soon easier.”
 2. “Seventy-five percent of the usual brain wave activity depends on what you see. Now close your eyes, let’s invite the brain to relax.”
 3. “Clear your head”. (Note: This is the part that takes practice- the idea is to stay unattached to thoughts). “Don’t worry about pictures or thoughts, just let them go without giving them attention or importance.”
 4. “Keep your spine straight and both feet should be on the ground.” “Breathe through your nose and try to lead the air to your stomach.” (Note: this has a relaxing effect in itself, reduces “flight or flight” alertness in the body).
 5. “As you breathe out try to exhale all tension and stiffness from your body. Feel your weight on the chair. Imagine that together with oxygen vital energy flows into your lungs and reaches your cells.”

6. “Don’t be surprised if you feel a bit dizzy during this exercise, it is normal. Your conscious breathing has an effect on your cells, purifying them and liberating tensions from your body.”
7. “Keep on breathing to your stomach and focus on inhaling vital energy and exhaling all those emotions and substances what doesn’t serve you anymore. Relax your body from the top of the toes to the top of your head.”

Part 3 (10 minutes):

- Following the exercise, group debriefing to share reactions feelings and experiences.

Training method:

- Individual activity.

Materials needed:

- Chairs or mats.
- Relaxation music (soft, calm).

Recommendations

Possible concerns:

- Relaxation takes time and a gradually built up methodology and practice.
- People might not want to share personal experiences which should be respected.

Variations:

- A mindfulness questionnaire can be completed by the learners to get a picture about one’s body and mind consciousness level (17).





Affirmation:

- Relaxed mood.
- Openness to others.
- No feelings of anxiety.

Note: See illustrations in exercise M2.3.



M2.2 | Which Tree Are You?

Mental fitness <ul style="list-style-type: none"> • Attention (selective attention) • Sensation – Perception (discriminant perception, visuospatial ability) 	Interaction  collaborating	Duration  60 minutes	Group size  between 2 and 20 people	Method  group work
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Purpose

Setting free your body and mind

- To combine body- mind- soul to find extra resources of strength.
- To achieve inner relaxation.
- To find a connection with Nature.

Rationale & benefits

By understanding the elements of Nature as symbols for their wellbeing, learners discover something new that might be helpful to their everyday life.

This can be used to bring balance into body mind and soul, so it can be a good way to start the day.

This kind of exercise promotes body movement, balance and contact with the inner self.

Methodology

Duration: 60 minutes.

Size: Between 2 and 20 in groups of 2 to 4.

Instructions for facilitators:

Part 1 (15 minutes):

- Go out in the garden or to a park. Ask each learner to find a tree which attracts and interests them.
- Ask them to spend a few minutes observing, contemplating it. Learners are then asked to imagine how it would feel to touch the tree.

- Invite them to touch the chosen tree or, its leaves, to feel its temperature for a few minutes

Part 2 (15 minutes):

- Standing or sitting with the back leaned against the tree; learners can realise a relaxing meditation.
- Facilitator to follow the script:
 1. “Feel the stability of the ground and when you feel secure, close your eyes.”
 2. “Breathe deeply through the nose. Focus on your body, to feel the whole body, not just your head or back.”
 3. “Imagine now that you are one with your chosen ‘peer tree’, that you are that tree. Visualise that roots are starting to grow from your feet, deep down towards the heart and centre of the Earth. You are rooted and safe.”
 4. “Feel that your spine is strong and flexible, like the trunk of your tree.”
 5. “Feel the wind on your skin. Imagine the wind playing with your leaves. Feel your lungs breathing.”
 6. “Feel the top of your head growing high towards the sky, free and calm.”
 7. “Be conscious of your environment. Feel the grass under your feet. It is soft like a pillow. The air smells good. You breathe sunlight and the earth feeds your body.”
 8. “Put your arms on your stomach and keep breathing. Take a moment with yourself and enjoy the stability and the contact with your inner strength.”

Part 3 (15 minutes):

- Returning to the room or remaining outside, learners are asked to draw a tree.
- It might be the real tree which they chose previously or their personal feelings during the guided meditation.
- Indicate to them that you concentrate on their own feelings and experiences, not other people and to follow their instincts and trust that what their inspiration tells them.

Part 4: (15 minutes)

- Group debriefing to share reactions feelings and experiences.

Training method:

- Group activity.

Materials needed:

- Classical music (e.g. Mozart).
- Soft light.

Recommendations**Possible concerns:**

Do not force learners beyond their comfort zone and what they feel happy doing.

Variations:





-

Affirmation:

- Sense of inner balance.
- Successful connection of body and mind.



M2.3 | I Can Feel My Heartbeat

Mental fitness <ul style="list-style-type: none"> • Language (production) • Attention (selective attention) • Sensation – Perception 	Interaction  exchanging	Duration  60 minutes	Group size  between 5 and 10 people	Method  individual work
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Purpose

Self-concentrating and mind travelling

- To find your inner strength.
- Enhance confidence and self-esteem.
- Focus on sensations.

Rationale & benefits

Knowing our own and other's "love languages" can help us to understand our relationships better and to solve problems as well.

Learners discover their inner strength and improve their self-reliance.

Methodology

Duration: 60 minutes.

Size: Between 5 and 10 people.

Instructions for facilitators:

Warm up (5 minutes):

- The facilitator introduces the topic with a short projection of pleasant pictures: for example nature, happy people, and expressions of joy, helpful humanitarian acts, animals.

Part 1 (25 minutes):

- Inspired by visual triggers, learners are asked to think about people (friends and family members, colleagues) who they consider driven by their heart.
- Initiate a group talk about related questions, e.g. "How are these people, how do they express love, how do they

make you feel? What are the possible ways of expressing love, interest, appreciation of other people and you?"

- Facilitator to introduce Chapman's classification of love-languages (gifts, quality time, words of affirmation, acts of service, and physical touch).
- Learners are invited to take the questionnaire which will help them to become conscious about their own, individual ways of expressing love and to identify people's love language.
- Learners to form pairs and share information about their own love languages.

Part 2 (25 minutes):

- Learners to find a comfortable sitting position.
- Play chill-out or instrumental music to create an ambience.
- Learners are asked to take some deep breaths, inhaling through the nose and exhaling whilst putting their hands onto their hearts.
- Follow the following script :
 1. "Feel the oxygen that comes in your lungs and then out."
 2. "Concentrate on the breathing and relax. Think of your ability to breathe as a friend that stands by you in every condition. A buddy that stays by you no matter what."
 3. "Keep on breathing and silently thank your lungs that work without you even asking them to do so. Enjoy and relax, keep on breathing."

- Facilitator guides the group through a “virtual journey” towards their heart:
- Start from a wider perspective (simple, lovely things) and continue towards deeper and higher levels of love by inviting learners to follow with the following imaginative triggers:
 - a) Delicious food (e.g. imagining smell, image, taste).
 - b) Sunshine (e.g. warmth, shine, power).
 - c) Sea (e.g. rolling waves, smell, touch, clean)
 - d) Nature (e.g. smiling people, gentle animals, lovely faces, people you know, friends, family members).
 - e) Your own body – Life itself in everything and everywhere.
- Ask learners to listen carefully to feel and hear their heart beat.
- Follow this script:
 4. “Your heart sends vital energy to each and every cell of your body in every second of your live. Your heart works without asking something back. Be grateful. Thank your heart and lungs for working night and day for you, be thankful for these two friends that stay

with you as long as you live. Enjoy and relax.”

- Close with a group debriefing to share reactions feelings and experiences.

Training method:

- Individual activity.

Materials needed:

- Questionnaires (see further readings).
- Comfortable chairs.

Recommendations

Possible concerns:

-

Variations:

- Instead of sitting the learners could be lying down on mattresses.

Affirmation:

- Consciousness in self-expression.
- Attentive attitude, optimistic and grateful attitude.
- Relaxed mood.






Further readings (104)



By A. Linda Orosz



M2.4 | Let's Laugh Together

Mental fitness <ul style="list-style-type: none"> • Memory (long-term memory) • Language (production) • Attention (selective attention) 	Interaction  connecting	Duration  30 minutes	Group size  between 10 and 30 people	Method   individual and group work
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Purpose

Paying attention to laughter in our lives

- To take care of our positive attitude and humour.
- To understand the importance smiling and laughing.

Rationale & benefits

Besides the common sense view that laughter has a positive effect on health conditions and mental state, the fact that laughing prolongs life is also scientifically proven. It reduces pain, increases subjective wellbeing, releases stress, gives inner massage to the organs and vitalises metabolism.

The number of laughing groups /laugh therapy groups is growing in Europe and USA. In other continents it might not be necessary as in Latin America or some parts of Asia people by nature/socialization laugh more often.

On an everyday basis people are less used to laugh due to stressful lives, therefore practicing "laugh exercise" is highly recommended. This exercise is based on Osho's therapeutic laugh model (101).

Methodology

Duration: 30 minutes.

Size: Between 10 and 30 people.

Instructions for facilitators:

Warm up (10 minutes):

- The facilitator introduces the session with questions like these:
 1. "How many times do you laugh during your day?"
 2. "When was the last time you had a good laugh?"
 3. "What were you laughing about?"
 4. "Do you know people who laugh in a particularly funny way/laugh a lot?"
 5. "How do you feel when these people laugh around you?"
 6. "How do you feel when you are watching a funny movie, do you laugh?"

Part 1 (duration increases gradually with practice from 3 to 5 minutes):

- Learners are asked to hold their body firm forming each and every muscle.
- In the meanwhile they listen to natural sounds such as clapping hands, strong wind, animal sounds, etc.

Part 2 (5 minutes):

- Ask learners to first imitate random laughter, then to continue laughing following in their "own style".

Part 3 (5 minutes):

- Finish with a soft relaxation through calming sounds (sea, birds, etc.) and learners are asked to breathe deeply through their nose and concentrate on the feelings in the body.

Training method:

- Individual and group activity.

Materials needed:

-

Recommendations**Possible concerns:**

-

Variations:

-

Affirmation:




- Positive experience that could become a habit.
- Better understanding of the way to control stress levels through the body functions.

Further readings (100; 101)

By Orna Mager



M2.5 | Up, Up Up You Go!!!

Mental fitness <ul style="list-style-type: none"> • Attention (selective attention) • Sensation – Perception (discriminant perception) 	Interaction  connecting	Duration  45 minutes	Group size  between 6 and 20 people	Method  individual work
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Purpose

Exploring simple stress management

- To escape from everyday problems.
- To chill out and cheer up.
- To learn how to take a distance from problems and everyday routine.
- To train the mind through meditation.

Rationale & benefits

Music is something that instantly speaks to our soul. Music can guide us towards active meditation.

By distancing from everyday life routines, learners switch off their thoughts for a while in order to chill out and cheer up their soul.

Methodology

Duration: 45 minutes.

Size: Between 6 and 20 people.

Instructions for facilitators:

- Invite learners to engage in a special musical journey.
- They are asked to find a comfortable position, preferably lying down. It creates a positive group atmosphere if they are arranged into a star shape (heads towards the centre of the star, legs pointing outwards).

Warm up:

- Learners are asked to all clap their hands for one minute in order to release any

tension from the day and focus on the joy of the present moment.

- The facilitator act as a “choirmaster” introducing a rhythm which will be followed/reproduced by the learners.

Part 1: On the wings of music:

- Facilitator chooses 8 to 10 songs/music from all around the world, e.g. zorba, samba, flamenco, Chinese flute song, boogie-woogie, Hungarian song, tango, Indian chants.

- Learners might wish to move their hands and arms in rhythm to the music.

- Part 2: Following the journey:

- Facilitator to follow the script:
 1. “In every breath in and out feel one kilo lighter each time.”
 2. “After a couple of times imagine that the wind can move you lightly back and forth.”
 3. “Trust the wind and let it take you every time a centimetre higher off the ground. Go as high as you like. Feel comfortable in what you choose.”
 4. “Let it float you to the sky. You don’t have a specific destination you just need some time to feel free from the weight of every day. You have the right to take this moment for yourself. Take a small ‘journey’ if you wish.”
 5. “When you have enough, slowly with your breathing stable, take one metre at a time to land yourself back on your bed, couch, and mattress. Feel your arms, foot, your back and your head landing smoothly.”

6. "Take a few breaths and open your eyes. Slowly stand on your feet if you want."

- Group debriefing to share reactions feelings and experiences.

Training method:

- Individual activity.

Materials needed:

- A bed, a mat or mattress for the floor.

Recommendations

Possible concerns:

-

Variations:

- The effect of the exercise is stronger if you lie down. You can also sit on a chair but the signals of your body stand may not let you feel the lightness as you wish.





- In case of a smaller group each learner can introduce their own rhythm play (repeated afterwards by the others) going around in the circle/star from person to person, each thus creating and teaching to the others a proper rhythm play (the rhythm of my day).
- The session can close with art work (before the group talk), learners can be encouraged to draw their feelings and experiences.
- In Part 2 people can also travel to places they really like or where they would like to be.

Affirmation:

- Positive emotions, charge of energy.
- Relaxation.
- Feeling of internal energy or life force.



M2.6 | Warm Your Senses, Warm Your Body

Mental fitness <ul style="list-style-type: none"> • Attention (selective attention) • Sensation – Perception (discriminant perception) 	Interaction  connecting	Duration  60 minutes	Group size  between 1 and 20 people	Method  individual work
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Purpose

Experimenting in nature

- To use Nature's resources for your own benefit.
- To experience a peaceful feeling.

Rationale & benefits

It is important to learn about your needs. See the elements of the Nature as symbols for your well-being. You could discover something new that might be helpful for your everyday life.

This activity of meditation will train the mind to realise the benefit of nature. It aims at single-pointed concentration and single-pointed analysis, without any effort required by the learner.

Methodology

Duration: 60 minutes.

Size: Between 1 and 20 people.

Instructions for facilitators:

- Sunny day!!! Outdoor exercise.
- Choose a good outdoor environment, a warm day or dress accordingly.
- The group picks a quiet outdoor place where they feel comfortable.
- Simple yoga asanas could be realised which does not require an official yoga instructor.

- Learners should sit down forming a large circle, or in pairs, back to back. They are asked to spend some time with concentrating on the warmth of sun touching their face and skin (10 minutes).
- Learners are guided through a meditation. Follow the script below:
 1. "Realise where you feel the tension in your body and focus on those spots. Just let the tension go."
 2. "Try to release it and focus on your breathing through the nose. If the tension is doesn't want to goes away, exhale through the mouth pronouncing a deep HA. Continue breathing likewise till the tension eases."
 3. "Let the air come in and out. Focus on your body and feel how the warmth of the sun lightly touches your beautiful face. What a wonderful feeling. How happy this is. Smile."
 4. "Feel every cell that wakes up and revitalises intensely with this warmth. The sunlight helps you to wash out old energy, old attachments from your body which don't serve you anymore. The sun fills you with new, fresh vitality."
 5. "Relax and enjoy the warmth and the quiet around you. Keep on breathing. Breathe the warmth in and send it to the whole body. Every time you breathe, you feel the kindness of the sun, the Nature and the response of your body on this experience."
 6. "Take your time and when you feel like you have enough thank Nature for all

the gifts that sends you today and slowly open your eyes. Take a nap if you feel like it.”

- Afterwards ask learners to write down their feelings in a poem

Training method:

- Individual activity.

Materials needed:

- A short sequence or a long sequence of example postures/asanas (→ Toolbox: M2.6 short and long posture gallery).
- Yoga type mats.
- A small pillow if needed.

Recommendations

Possible concerns:

-

Variations:

-

Affirmation:





- Enjoy a simple life activity in nature.
- Sense of wellbeing.
- Changed mood – positive emotions.



By A. Linda Orosz



M2.7 | The Power of Our Thoughts

Mental fitness <ul style="list-style-type: none"> • Language (production, comprehension) • Attention (selective attention) • Sensation – Perception 	Interaction  collaborating	Duration  60 minutes	Group size  between 5 and 20 people	Method  individual or group work
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Purpose

Becoming conscious about the power and effects of our words and thoughts

- To analyse body language related to positive and negative communication.
- To think positive.
- To become more conscious of our own life philosophy and self-expression.

Rationale & benefits

The activity will help the learners better understand the importance of positive thinking. In order to turn negative thinking to positive thinking, they will experience the effect of negative thoughts/words versus positive thoughts/words.

Methodology

Duration: 60 minutes.

Size: Between 5 and 20 people.

Instructions for facilitators:

Warm-up (25 minutes):

- Facilitator introduces the session with a story or tale which contains twists in the storyline, bad things turning out to be good, and vice versa.
- Learners are invited to identify good and bad things and their nature in the story.
- Initial discussion on whether we can always be sure about the importance of different happenings in our life and whether we remember an instance of

when something unpleasant turned out to be helpful and positive

- Collect thoughts about spontaneity, flexibility and surprises.

Part 1: Effects of our words and thoughts (15 minutes):

- Learners are asked to form pairs or trios and test the body's answer to positive and negative thoughts/affirmations: For one minute the other partner(s) will say unpleasant words to their partner. (N.B. before the exercise the facilitator should give a list of these words in order to avoid very negative ones.) The listener should stand with eyes closed and let the body express itself (doesn't have to move). The listener's body will move into a 'depressed' position, forward bending, shoulders come ahead, head pointing downwards.
- After this, the partner(s) will say positive, praising words to the other. The listener's body will change posture immediately (e.g. head and chin upwards, back straight). The speaker will have the chance to observe the changes and become conscious about the effects of their words onto others and the effect of their thoughts on the body. They change position afterwards.
- Pair and group discussion about the experiences.

Part 2: Anti-stress breath work (5 minutes):

- Breathing in through the nose (into the stomach) and breathing out through the nose. 4 rhythm (breath in) – 4 holding your breath – 6 breathing out – 2 staying

with empty lungs. It can be repeated 12 to 20 times.

Part 3: Closure (15 minutes)

- Write about one everyday experience which made you happy. Do it as if it was breaking news, in the first page of the daily paper! Share with the others.

Training method:

- Sample story (→ Toolbox: M2.7 Chinese tale).
- Individual or group activity.

Materials needed:

- Soft music.

Possible concerns:

-

Variations:

- Warm up: instead of a story, an everyday life situation can be elaborated this way, analysing possible good effects of apparently negative happenings (it can be a group – talk or a drama play).

Affirmation:

- Positive thinking.
- Control over stressors.
- Feel the benefits of a self-psychoanalysis.





Recommendations



By J. Jesús Delgado Peña



M2.8 | Anti-tension Dance

Mental fitness <ul style="list-style-type: none"> • Language (production, comprehension) • Sensation – Perception (discriminant perception, visuospatial ability) 	Interaction  collaborating	Duration  30 minutes	Group size  between 6 and 18 people	Method  individual or group work
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Purpose

Moving and dancing

- To concentrate on how your body feels.
- To find ways to relax the body tension.

Rationale & benefits

This exercise is relaxing and trains the person to explore their own body, finding the tension points and finding ways to relax.

When used in a group can also be used as brain training.

Methodology

Duration: 30 minutes.

Size: Between 6 and 18 people.

Instructions for facilitators:

Level 1:

- Learners need to form trios. One person will be in the centre, the other two will move their arms softly, creating a dance of the arms. The exercise provides a highly relaxing effect. The “dancing” person is asked to focus on the arms.

Level 2:

- Learners are asked to form pairs and ask them to do the following:
 1. “Stand or sit with feet placed on the floor.”
 2. “Close their eyes and start exploring their body from head to toe like a scanner.”

3. Ask their partner the following: “Which part of your body feels tense? What would it need to make it feel relaxed? If you would give your body voice, what would it say?”

- They should let their body decide what kind of movement would be appropriate to ease this tension, then make this movement with eyes closed.
- Move to the next point of tension and repeat the procedure.
- At the end of the scanning process learners should try to remember all the movements and create an “anti-tension dance”.
- When in a group, one learner after the other says which part of his body feels tense, what it indicates and then show the movement to the rest of the group. All learners should then copy the movement.
- At the end of the exercise, one learner starts with one movement that has been shown before in the group (not his own), the next does another movement and so on. No repetition is allowed until all movements of the group have been shown. The goal is to create an “anti-tension group dance”.

Training method:

- Individual or group activity.

Materials needed:

- Comfortable chairs.

Recommendations

Possible concerns:

-

Variations:

-

Affirmation:

- Pleasant body feeling.
- Relaxation – no body tensions.



By J. Jesús Delgado Peña



3.3 Module 3: Social networks and mental fitness

3.3.1 Introduction

People with regular social contacts, for instance in the family, workplace or the community, show less cognitive decline compared to lonely or isolated people. To be connected has high importance over the entire lifespan but is paramount in middle and older adulthood (4). But for older people it is sometimes a challenging task to stay socially engaged, to sustain or even form new social networks.

SOCIALISATION IS GOOD FOR MENTAL FITNESS

Research indicates that socialisation is correlated not only with physical, but also with psychological and cognitive wellbeing and even with longevity. Social interaction is essential part of brain-healthy lifestyle it may also boost the brain reserve because social connections *“influences not only our happiness in everyday life but the ways in which our brains process information, the levels of hormones circulating in our bodies and our physiological responses to stress”* (21). Moreover, socially connected and emotionally supported people may live longer than those who are isolated: active social networks provide a protective factor for cognitive functioning.

RISK FACTOR OF SOCIAL ISOLATION

Contrarily, social disengagement is a potential risk factor for cognitive impairment, depressive symptoms and dementia in older people (e.g. Alzheimer’s disease). Causes and issues of social isolation in older adults (e.g. aged 50+) occurs due to a complex set of circumstances and factors that exist at the individual, social network, community, and societal levels. The primary factors leading to isolation may be psychological (having psychological or cognitive vulnerabilities), physical (mobility or sensory impairment), or social (low socio-economic status, living alone or small social network with inadequate support).

Isolation can also be triggered by life changing events, including a change in or loss (e.g. social network, social role, physical health, mental health, resources). Some effects include:

- Having less sense of purpose: Having daily activities (e.g. a job) gives people a sense of purpose to their day and, at the very least, a routine. Its absence sometimes creates a void, which can lead to feeling low or depressed.
- Loss of social interaction: Having regular social interaction with other people, either colleagues, the general public or even on their journey to and from work. Some miss these social networks.
- Life changing events: Make a significant impact by diminishing daily social interaction or purpose and losing social connections. For instance retirement limits choice because of



reduced income and leads to a loss of confidence. Most life changes and transitions need to be adapted but is often better solved by older women than older women.

GETTING INVOLVED?

Interacting with others provides a stimulus whilst developing positive relationships with like-minded people. These are meaningful experiences with a profound sense of achievement. Activity with others on a daily or weekly basis reinforces a sense of identity and purpose, at a lifetime when people may experience the loss of career and/or family who have “flown the nest”.

Contact with others is crucial to mental fitness because it helps to put people in touch with their true selves, so in a “safe” group they drop their barriers and become more self-confident. Moreover, it gives them back a social status, emotional and spiritual gratification, self-esteem, self-efficacy, and life satisfaction. After an initial meeting older people even continue to meet. Finally, it provides purpose in life.





Therefore, ideas of how to link older people with an environment are needed. Socialisation and related activities need to promote building on exchanged interests, skills, competencies and learning opportunities of older people. The shared experience from a group provides a focus for conversation. Like-minded people support each other, get positive feedback from others, channelling emotions for mental strength which is liberating, and can then be applied to other life areas. Interaction with others also helps older people to take a more active role in their communities by expanding their social networks, often extending beyond group meetings.

3.3.2 Activities and exercises

Number	Name
M3.1	What Can You Put In The Pot?
M3.2	Finding Common Ground
M3.3	Narrative Café
M3.4	Picturing Words
M3.5	Sharing Sensations
M3.6	What, Why, hoW - Demystifying the www
M3.7	Standing Your Ground
M3.8	Take The Big Yellow Taxi



M3.1 | What Can You Put In The Pot?

Mental fitness <ul style="list-style-type: none"> • Language (production, comprehension) 	Interaction  collaborating	Duration  60 minutes	Group size  between 8 and 24 people	Method  group work
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Purpose

Finding our strengths and discovering what we can do together

- To discover current and potential skills within the group relevant to activities e.g. organising, planning, networking, skill swapping and promoting, engaging others and disseminating a message.
- To encourage and enhance listening and reflection skills.
- To endorse and value the skills of others within the group.
- To enhance confidence and to be valued as a resource to other people.

Rationale & benefits

The main benefit is to help older people keep active minds, to discuss issues with others, to listen actively and value all points of view and matters of passion or interest.

The exercise captures and capitalises on what skills learners have. It affirms the learners' potential to bring strengths to working collectively, drawing from a reservoir of skills and talents and identifying areas to work on.

The exercise reassures learners of existing skills, which will enable them to tackle activities which they thought to be beyond their scope or ability, allows them to share strengths and gain greater confidence by engaging in joint activities.

Methodology

Duration: 60 minutes.

Size: Between 8 and 24 people in groups of 4.

Instructions for facilitators:

- Work in groups of 4 to complete the "Know your Strengths' activity".
- Share the above, drawing from "real" examples.
- Each learner to identify two personal strengths and skills they wish to develop.
- Observe and note key points on the above and draw from these examples to make further (stimulating) questions.
- Plenary session to identify skills to exchange, any further support needed and ways to carry on working together.
- Led by facilitator, each group then discusses, challenges and reflects on real and pertinent topics.

Training method:

- Small group works.

Materials needed:

- "Know your own' strengths" diagnostic activity (→ Toolbox: M3.1 Skills sheet).
- Advice and guidance on developing particular skills.

Recommendations

Possible concerns:

Not everyone's experience of considering prior learning and skills will be the same. It is often the case that serious issues are raised, such as feeling failure and inadequacy.

All skills identified from group members should be valued. Recognise that there is a lower confidence level among older people. As the focus is on discussion and opinion forming, stress the importance of valuing other's opinions and mutual support.

Variations:

- May be free standing, but could follow Finding Common Ground (M3.2).






Affirmation:

- Recognising the value of untapped skills for one's self-esteem and identity.
- Realisation that previous acquired specific skills can have a wider application
- Recognising the value of interchangeable skills, interacting with others and mutual support.

Further readings (3; 24; 34; 47)



M3.2 | Finding Common Ground

Mental fitness <ul style="list-style-type: none"> • Language (production, comprehension) • Executive functions (categorisation) • Reasoning (logical reasoning) 	Interaction  collaborating	Duration  60 minutes	Group size  between 8 and 18 people	Method   pair and group work
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Purpose

Exploring and sharing common interests

- To focus on how pursuing an interest can enhance self-worth and develop mental fitness through language and reasoning skills.
- To identify learners' interests e.g. reading novels, supporting a football club, photography, food, cooking, gardening, singing or making music, craft, wildlife, local history.
- To develop and agree ideas and devise a "road map" for future activity.
- To find opportunities to build on identified skills e.g. organising, planning, networking, skill swapping and promoting.

Rationale & benefits

Sharing common interests gives people a chance to tell others about something they value. Engaging in joint activities with like minded people builds trust, better understanding and tolerance.

At the same time, interacting with others is fun, develops positive relationships and increases confidence and sharing enables group members to achieve more than they could have done individually.

Methodology

Duration: 60 minutes.

Size: Between 6 and 18 people in groups of 3.

Instructions for facilitators:

- Ask each learner to draw a shield shape on a large piece of paper and then divide in into four quadrants
- In the top left they should write their name, in the top right a word or phrase which describes their personality, then in the bottom two quadrants, they should indicate two of their personal interests.
- Each should show their shield to the group. After all have done so, conduct an exercise, randomly asking people to associate a name with a personality and interest.
- Learners should then choose to pair up with someone with a similar interest. Working in pairs.
- Each person takes it in turn to:
 - explain their personal interests and why it is valued by them,
 - each to indicate how their two interests might be connected,
 - give practical advice to each other about how to develop different interests e.g. a local book or painting group, members club, online courses or learning communities.
- Introduce additional materials e.g. a painting, artefact, collectables as needed to stimulate further learner discussion and activities.
- Encourage reflection on learners' common interest and be open to and listen to all contributions as people may articulate their ideas differently.

- Exchange contact and follow up details, if desired.

Training method:

- Working in twos and small groups, within interest groups.

Materials needed:

-

Recommendations**Possible concerns:**

Few. This is a positive session as learners share insights on things which they value and have special interest in.

Variations:

- If successful initial group might form self-directed special interest groups.
- May follow What Can You Put In The Pot (M3.1) and precede Narrative Café (M3.3).





Affirmation:

- Endorsement of the value of a learner's interest, by recognising its importance for one's self esteem and personal identity.
- Realisation that having a special interest is a good basis for social and communal interaction.
- Participation develops learners' potential, expands horizons and broadens the mind.

Further readings (42; 75; 107; 110)



M3.3 | Narrative Café

Mental fitness <ul style="list-style-type: none"> • Memory (short- & long-term memory) • Language (production, comprehension) 	Interaction  collaborating	Duration  60 minutes	Group size  between 5 and 10 people	Method  pair and group work
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Purpose

Telling my own story

- To pass on experiences through the telling of one's own life history.
- To gain appreciation and acknowledgment from the group.
- To strengthen episodic memory, self-confidence and problem solving.

Rationale & benefits

When passing on memories about life events through telling the tale, the learner is made aware of their own strengths by focussing on positive aspects. These are then of benefit in dealing with other life challenges and situations and in enabling strategies to deal with the demands of the ageing process.

Methodology

Duration: 60 minutes.

Size: Between 5 and 10 people.

Instructions for facilitators:

- An open and familiar interaction in the group is the basis for a joint reflection on one's own biography and mutual exchange of memories and past events.
- Guided relaxation to establish sharing communicative atmosphere.
- Introduce exercise. What a narrative café is - short introduction, what the focus will be about followed by a short statement from

each learner on: "What kind of feeling do I associate with this story?"

- Use stimulus material such as different photographs/pictures, newspaper or magazine articles or songs about a specific time in your life. Examples might be "school and education", "falling in love for the first time", "a Sunday in the 1970s". An actual event as an anchor point for individual storytelling.
- Introduce additional materials as needed to stimulate further learner discussion and activities
- Moderation of the conversation by further (stimulating) questions.

Training method:

- Working in twos and small groups, drawn from larger teaching group.

Materials needed:

- Stimulus materials, e.g. photos, articles.

Recommendations

Possible concerns:

Agree on joint rules for communication (e.g. listening to each other, everyone's point has validity, confidentiality, respect) and their visualisation (e.g. on a flip chart) help to set a framework of interaction and to draw boundaries.

Although facilitators do not seek to focus on difficult life-events, it is often the case that very sensitive issues are raised, such as

experiences during the war, life crises like the divorce or death of a close relative or partner.

Variations:

- Sometimes a repeated implementation of the same group is necessary. Then various alternative methods might be applied such as mutual interviewing, designing posters together, storytelling based on objects that recall past times and use of memory (memory box).
- If successful initial group might form self-directed special interest groups.
- Set a time limit for each story of 10 minutes per person.
- May lead from What Can You Put In The Pot (M3.1), Finding Common Ground (M3.2).

Affirmation:

- Stimulation through opportunity for reflecting on own life.
- Sharing with others contributes to acceptance and/or reconciliation of difficult memories and experiences.
- Reassurance that others have also had to cope with difficult experiences.
- Positive affirmation from a group instils self-confidence.





Further readings (7; 54; 56; 59; 82; 85)



By Kathrin Hofer



M3.4 | Picturing Words

Mental fitness <ul style="list-style-type: none"> • Language (production, comprehension) • Executive functions (categorisation) • Sensation – Perception (discriminant perception) 	Interaction  collaborating	Duration  120 minutes	Group size  between 4 and 22 people	Method  group work
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Purpose

Creating powerful words from stunning images

- To encourage and enhance visual awareness, perception and writing skills.
- To stimulate a creative response to powerful images using distinctive and effective words.
- To share the process with others in a small group, to enhance confidence and to be valued as a resource to other people.

Rationale & benefits

As people react differently to powerful images, this activity enables learners to share and discuss differing responses with like minded people.

The learners are then stimulated to use creative language to describe their responses to these powerful images in the form of a Haiku poem structure.

Example of a Haiku poem to be included.

This exercise will help develop mental alertness, creativity, visual awareness and writing skills. Feedback and positive affirmation within the group will support self-esteem and confidence of the learners.

Methodology

Duration: 120 minutes.

Size: Between 4 and 20 people in working groups of 4.

Instructions for facilitators

- Prepare a portfolio of powerful images (→ Toolbox: M3.4 PowerPictures. These might be drawn from internet sources, should be inspirational and colourful to stimulate a range of creative responses.
- Present images to the learners.
- Provide examples of distinctive and effective words to learners. These are colourful and highly descriptive adjectives. Examples include colossal, towering, blinding, staggering, breathtaking, fantastic, extraordinary, and enchanting.
- Seek a creative response to the images through the use of these words, which are then shared, discussed and compared.
- Give brief introduction to the Haiku poem - a short poem that uses sensory language to capture a feeling or image, often inspired by an element of nature, a moment of beauty or an experience. The basic format is 3 lines of 5, 7 & 5 syllables respectively.
- Invite each working group to select from five further powerful images.
- Each group to develop a series of distinctive words and then use them to create one or more Haiku poems.
- Each group will then review and refine poems before presenting them to all present, inviting review and feedback from all present.

Training method

- Tutor input to larger group.
- Work in groups of 4.
- Plenary.

Materials needed

- Samples of powerful images, examples of words and Haiku poems to be provided.
- Portfolio of 5 or 6 images to use for the exercise. Projection facilities, flipcharts.

Recommendations**Possible concerns**

Different levels of competence of learners, but by repeated practice confidence will be gained from support of other group members.

Variations

- A Tweet via Twitter, a text message of a maximum 140 characters.

- A Minicast, approximately 90 seconds of sound (music or speech) with a maximum 15 images.
- Write a poem in SMS text using a maximum of 140 characters.





Affirmation:

- A positive experience of collaborative learning and mutual support.
- Successful completion of a creative and practical relevant task.
- Improved self-esteem and confidence through having gained a skill or improved existing skills (visual awareness, literacy, creative writing).

Further readings (33; 49; 105)



M3.5 | Sharing Sensations

Mental fitness <ul style="list-style-type: none"> • Memory (long-term memory) • Sensation – Perception (discriminant perception) 	Interaction  collaborating	Duration  90 minutes	Group size  between 5 and 25 people	Method  group work
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Purpose

Experiencing & sharing aesthetic responses

- To look at paintings, to listen to music, prose or poetry.
- To note down the sensations, feelings, memories elicited by the artwork.
- To share and discuss these feelings, sensations and memories within the group.
- To compare and contrast the qualities (positive and negative) of the artwork.

Rationale & benefits

Older people have considerable visual and aural knowledge and memories gathered over many years. They also have a lifetime of experiences, recollections and habitual responses which are often stimulated or invoked by a painting, a piece of music, or a poem or passage of prose.

The exercise enables a group of older people to enjoy art, music and literature, but also to discuss and share the sensations, memories and preconceptions associated with the sensations.

It will not only stimulate perceptual recognition, but also give confidence to individuals to discuss and share their feelings and responses to a piece of art, music or literature.

Methodology

Duration: 90 minutes.

Size: Between 5 and 25 people in teams of approximately 5 people.

Instructions for facilitators:

Before the exercise:

- Prepare exemplars by selecting paintings, pieces of music, prose or poetry that represent and reflect important events or aspects of the past, which have the potential to invoke and stimulate memories and sensations from the groups.
- Invite learners to select their own examples to bring to the session, and to be prepared to share its personal resonance and value to them.

At time of exercise:

- Use either a piece of music, prose, painting or poetry for each input, which should be up to 15 minutes long. Initial sessions should use lighter and less complex pieces to explore.
- Facilitate sharing of learners examples by inviting them to guess who brought the item.
- To encourage the listening and observational skills of the group, ask them to share their sensations, feelings and reactions to each piece.
- Document down learner responses.

Training method:

- Initial tutor input to a larger group.
- Working in smaller groups to explore sensations and perceptions.

Materials needed:

- Visual material; projected images of paintings, or a real painting to be displayed, images of text or handouts, recorded music or a live performance.

Recommendations

Possible concerns:

For initial sessions, do not overload with too much material for discussion. Seek balance between exemplar materials and that brought by group members.

Anticipate varying levels of personal cognitive and memory ability and balance the groups for mutual support.

Variations:

- This exercise could be combined with a visit to a museum, art gallery, concert etc.,





where the groups can then meet together afterwards to discuss and contemplate the pieces as described above, thereby encouraging both further social interaction and artistic expression.

Affirmation:

- A meaningful aesthetic experience.
- A record of how the learners reacted and what sensations, recollections, etc. were invoked and what was gained from the exercise.
- Sharing of personal experiences and feelings to pieces of art, music, text, etc.
- Valuing the diversity of tastes through collaborative learning.
- Improved self-esteem and confidence through having appreciated, analysed and discussed art, music and literature.



M3.6 | What, Why, hoW - demystifying the www

Mental fitness <ul style="list-style-type: none"> • Reasoning (logical reasoning) • Attention (concentration/focal attention) 	Interaction  collaborating	Duration  60 minutes	Group size  between 4 and 15 people	Method  pair work
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Purpose

Keeping in touch

- To provide a taster experience.
- To understand the potential benefits of using the internet.
- To explore different ways of interacting through social media.
- To plan and share a communication using words and an image.

Rationale & benefits

This exercise will provide an insight into the “mystery” of the internet.

Online communities with people who share interests, activities, or who simply want to get in contact with other people are thriving. Social media, such as Facebook, Twitter, You Tube, Skype others can be fun and provides real benefits for older learners.

Social media can keep families close. Knowing what’s happening: surfing the internet is a source of endless fascination and a source of current information. Peace of mind: social media gives people a convenient way to check in daily. Community belonging: for those spending much of their time isolated at home, it provides the opportunity to have and be a friend, to ‘meet up’ and not be alone.

Some social network sites will have a specific theme – such as books, music, nature etc. where people can join up and interact with other people who have similar interests. Others are more general, where people can

link up with their friends and send messages, share photos, etc.

Through being given an insight through exploring the internet and a chance to practice and enact a task of contacting someone else through social photo sharing, learners will be able to determine how much interest they may wish to take forward.

Methodology

Duration: 60 minutes.

Size: Between 4 and 15 people.

Instructions for facilitators:

- Facilitation will commence with a brief interactive demonstration on accessing and using the internet.
- Learners form pairs with access to a computer for each pair.
- Facilitator to have some prepared questions and topics, for each pair to search for, for around 5 minutes
- Pairs to then have 10 minutes time to continue to search their own interests and to familiarise themselves with the logic of searching by “clicking”.
- Facilitator to introduce the basics of emailing and attaching an image (N.B. each learner will have been set up with an email in advance to enable the session to work well).
- Each individual learner within the pair to support each other in seeking an image of their choice to download and then email this with an appropriate message to one of the other pairs.

- Each individual to make a reply to their received email and image.
- Each pair to explain how to a) search the internet and b) compose an email to another pair, thereby testing their memory of their instruction and practice.

Training method:

- Work in pairs, led by facilitator.

Materials needed:

- Access to smartphone, tablet, laptop, pc.
- Pre set-up email account.

Recommendations**Possible concerns:**

May prove complex to many but is only regarded as a taster task

Variations:

Some learners may be puzzled and therefore facilitator needs to intervene.





Some will inevitably find tasks straightforward and will have an interest engendered. Those who wish to pursue their interest further might be directed to ICT learning provision available locally.

Affirmation:

- A successful completion of a useful task.
- A positive experience of collaborative learning and mutual support.
- Improved self-esteem and confidence through having gained skills.



M3.7 | Standing Your Ground

Mental fitness <ul style="list-style-type: none"> • Language (production, comprehension) • Reasoning (problem solving, logical reasoning) • Attention (selective attention) 	Interaction  collaborating	Duration  60 minutes	Group size  between 6 and 12 people	Method  group work
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Purpose

Reasoning, forming and expressing

- To encourage and enhance listening and reflection skills.
- To enhance skills in forming opinions and sharing insights within a group.
- To share the process with others in the group, to enhance confidence and to be valued as a resource to other people.

Rationale & benefits

This is a common English expression, meaning that you hold to a viewpoint in response to challenges.

The main benefit is to help older people keep active minds, to discuss issues with others, to listen actively to points of view and matters of passion or interest, and to condense the arguments into a simple presentation for further discussion.

A secondary benefit enables learners to increase self-esteem by discovering that they have something worth saying. The exercise develops their opinions, their support for others' opinions and their ability to listen and reflect.

Methodology

Duration: 60 minutes.

Size: From 6 to 12 people OR in several groups of 6 people.

Instructions for facilitators:

- Facilitator to set up topics for a discussion, using stimulus material such as magazine and news articles, TV documentaries etc.
- Encourage themes for discussion. Examples might be "How people think of me now I'm getting older" "What can I do to stop people spoiling my local area", "How can I put my side of the story".
- Ensure the use of real issues from the common interest, e.g. local community issues, local politics, planning matters, which will stimulate discussion.
- Each group discusses, challenges and reflects on real and pertinent topics.
- NB Facilitator to try to step back and keep a watching brief.
- To enable discussion to flow well, allocate roles to the group. From a group of six learners, ask for one volunteer to act as Chair, three to contribute their ideas on the subject, one to act as an observer and one to record key points of the discussion.
- Chair to allow equitable time and space given to different views, observer to say what happened, including non-verbal communication.
- If time allows, repeat exercise with different topic and change roles around.

Training method:

- Work in small groups.

Materials needed:

- Stimulus material for themes.

Recommendations

Possible concerns:

Some learners may find it difficult at first to express and share opinions, but by repeated practice confidence will be gained from support of other group members.

As the focus is on discussion and opinion forming, stress the importance of valuing other's opinions, collaborative, co-operative and inclusive working for support.

Designate less strenuous roles i.e. as recorder and observer to suit any less active or confident.

Variations:

The discussions and reflections could be documented in many forms, the group will choose what works best in the time available. These forms could include

- a collection of post-it notes,
- a wall display,
- a flip chart,
- a power-point display,
- a web-page,
- a collective article in a local magazine,

- a collection of photographs taken by the group: it's their choice of what works best in the time available.

As an alternative, each individual or pair might be asked to represent say a country or a position, to present pro and counter arguments and develop skills of persuasion.





- This is a stand-alone exercise, but could link to What Can You Put In The Pot? (M3.1) and Narrative Café (M3.3) and builds on interests that could be identified in Finding Common Ground (M3.2).

Affirmation:

- Improved self-esteem and confidence through having gained a skill(s).
- A successful discussion and challenge of a real and relevant topic.
- Understanding of group roles
- A positive experience of collaborative learning and mutual support.
- Seeing how older people's opinions and reflections can make a difference to their community and environment.



M3.8 | Take The Big Yellow Taxi

Mental fitness <ul style="list-style-type: none"> • Memory (long-term memory) • Executive functions (planning) • Sensation – Perception (visuospatial ability) 	Interaction  collaborating	Duration  120 minutes	Group size  between 6 and 24 people	Method  group work
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Purpose

Walking down memory lane²

To gain a fresh view of an area/resource, understand something of its value and memories and any changes that might affect it in the future, by

- Walking round a local area (park; museum; historic site; neighbourhood, quarter or barrio; nature reserve, etc.).
- Taking a fresh look while talking about it with other learners and people met during the exercise.
- Sharing memories with others and compare how each sees the area.
- Identifying if the area has changed and may change in the future.
- Deciding how best to document the experience.

Rationale & benefits

Older people have considerable knowledge and memories of their local neighbourhood over many years. They also have a lifetime of experience, including the ability to see their local environment and changes in it over time. They may have a profound attachment

² Note: the title of exercise is from the Joni Mitchell song of that name “you don’t know what you’ve got till it’s gone” “it ain’t paradise, it’s a parking lot” – it could have been a song about how we take our locality for granted until either it’s threatened or until we take a fresh look at it.

to the area, which helps them define something of who they are. From these standpoints they can more easily reflect on what they value from the past and the present.

Take the Big Yellow Taxi enables the sharing of skills, memories and experiences which will in turn benefit their communities and leaves a legacy for the future.

The exercise provides an opportunity to ask questions of people they meet, such as staff in a Museum or Park or people walking their dogs in the area, and increase interaction while gaining additional ideas, appreciations and memories.

Methodology

Duration: 120 minutes.

Size: Between 6 and 24 people OR in teams of approximately 6 people.

Instructions for facilitators:

Before the exercise prepare by:

- Walking round the local area (or may be to museums, local libraries, community centres, places of worship) to record significant aspects of the past, present and change over time, seek local knowledge, anecdotes etc.
- Allocating group roles based on preferences.
- It is anticipated that there will be a range of existing skills in each group, or at least a preference for choosing a task, e.g. photography, internet and library

research, sketching, interviewing, leading and organising group members.

At time of exercise:

- Ask learners to introduce recollections and experiences of the local neighbourhood.
- Ensure that material collected, e.g. photographs, documents, anecdotes are manageable within the resources and capabilities of the group(s).
- Plenary session to include reflection on the activity, and discuss options for future self-directed research or action in the community.

Training method:

- Set up working groups of six, and then encourage self-directed activity.

Materials needed:

- Documentation, e.g. outline maps, documentation for recording, sources of local information.
- Initial meeting venue should be an accessible neighbourhood centre with appropriate resources, e.g. civic centre, library, café, place of worship.

- Other focused interest group activities, e.g. painting, writing, photography, social media, might be maximised as the chosen way of recording and capturing local information.
- May be free standing or could follow I Did It My Way (M1.6), Narrative Café (M3.1) or Picturing Words (M3.4).

Affirmation:

- Simple documentation for sharing in a public venue, such as a library display or a web-page.
- A record of how the learners each view the chosen area in a different light, and what they gained from the exercise.
- Successful collation and sharing of local reminiscences.
- The positive experience of collaborative learning and mutual support.
- Improved self-esteem and confidence through having gained a skill or skills.
- Seeing how others can benefit from the dissemination and presentation of local knowledge, e.g. across generations and neighbouring areas.

Recommendations

Possible concerns:

The choice of the focus area as an outdoor learning environment should be collaborative, co-operative and inclusive, reflecting the physical abilities of the group. Also any research or exploration required within an indoor facility e.g. museum, library should be accessible and prepared for the group.

Variations:

Further readings

This is based on and builds upon:

- UK and European Heritage Days,
- Learning through local museums, libraries and art galleries,
- Local history and heritage groups and societies,
- Municipality archives and collections,
- British Museum “Afternoons for over 55s”, and
- Private Garden “Open Days” initiatives.



3.4 Module 4: Nutrition and mental fitness

3.4.1 Introduction

It is now recognised that good nutrition is essential for our mental wellbeing and that a number of mental conditions may be influenced by dietary factors. The body of evidence linking diet and mental fitness is growing at a rapid pace. Food plays an important contributing role in the development, management and prevention of specific mental health problems such as depression, schizophrenia, attention deficit, hyperactivity disorder, and Alzheimer's disease.

A balanced mood can be protected and feelings of wellbeing can be fostered by ensuring that a diet provides adequate amounts of proteins, essential fats, complex carbohydrates, vitamins, minerals and water (6 categories). Our brain, during its activity, burns most of the nutritive resources contained in our blood. The food we eat, in fact, has a direct impact on mental abilities and a poor or imbalanced diet is likely to weaken the memory and the ability to concentrate.

There are some simple rules for good nutritional diet for older people:

- Eat in different ways: The chosen food should belong to at least five of the above mentioned six categories in which they are divided, for instance fruits, vegetables, bread and cereals, milk and cheese, red meat, white meat, fish, dried vegetables.
- Eat plenty of fibre, found mainly in cereals: The fibres help the intestine that, with the higher age, it slows down its action.
- Increase your calcium intake; drink at least eight glasses of water a day but limit alcohol.
- Avoid or limit foods rich in cholesterol and reduce the use of salt.
- Limit sugar: The need for sweet foods that many older people feel is more psychological than physical.

Distribute food intake over the course of the day: Three regular meals a day is beneficial (possibly including a couple of snacks) and it should follow fixed times. Basically, prepare a nutritious breakfast and a light dinner: Breakfast provides energy for the entire day. A light evening meal helps to fall asleep earlier and sleep better.

Nourishing ourselves does not mean just eating; it is a lifestyle, it is an expression of wisdom aimed at reaching a good balance between body and mind, following the old Juvenal proverb "*Mens sana in corpore sano - A sound mind in a healthy body*".



3.4.2 Activities and exercises

Number	Name
M4.1	Words Will Never Make You Fat
M4.2	Eat Like Leonardo (Da Vinci)
M4.3	Smart Recipes
M4.4	A Proverbial Hunger
M4.5	Neither Fish Nor Meat
M4.6	Eat the World
M4.7	Pyramid Builders
M4.8	Mind Your Food Habits



M4.1 | Words Will Never Make You Fat

Mental fitness <ul style="list-style-type: none"> • Memory (long-term memory) • Language (production) • Executive functions (initiative) 	Interaction  exchanging	Duration  30 minutes	Group size  between 5 and 15 people	Method  group work
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Purpose

Expanding knowledge of nutrition issues

- To write down an exhaustive list of all kinds of food typically known or eaten by the group of older learners.
- To perform two social games.
- To activate the memory (through information gathering activities), attention (learners have to respect game rules and act quickly) and focus.

Rationale & benefits

The activity involves producing a list of foods that will raise the awareness of older learners regarding the great variety of existing foods, of their common nutrition habits. This exercise has the advantage of also providing entertainment to stimulate groups and individuals, creating an atmosphere of both fun and trust.

Methodology

Duration: 30 minutes.

Size: Between 5 and 15 people.

Instructions for facilitators:

- Learners sit either in a circle or facing each another.
- Facilitator starts the exercise by choosing a learner and says aloud the name of a food ("apple" for example).

- The chosen learner has to name another food for which the starting letter will be the same as the final letter of the previous word. Then they will choose another learner and the exercise continues in this manner. Facilitator writes down each food named by the learners and shows this to them.
- If learners have difficulties in finding new names, then give the group a new type of instruction, like choosing a letter of the alphabet and writing a list of other foods, starting with this letter, not yet present in the previous list. The winning group is the one finding more words.
- When all the possible combinations are finished, facilitator ends the exercise showing the full list of foods.

Training method:

- Group work.

Materials needed:

- Different coloured writing materials.

Recommendations

Possible concerns:

Facilitator should always be aware of the possible emotional and cognitive difficulties that could emerge within the group. Therefore it is recommended to constantly keep a fun and non-competitive atmosphere, for example passing to another learner if one is embarrassed.

Variations:

- Exercise might be repeated after a while to see whether the list of foods could be further expanded following our suggested procedure.
- Also possible to time the exercise, and when small groups are involved to make it competitive.

Affirmation:




- Awareness of the health properties of certain foods. By checking the list of the foods written down when compared to

full lists that can be found in specialised publications or on the internet.

Further readings (11; 79)



M4.2 | Eat Like Leonardo (Da Vinci)

Mental fitness <ul style="list-style-type: none"> • Reasoning (problem solving) 	Interaction  exchanging	Duration  30 minutes	Group size  between 5 and 10 people	Method  group work
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Purpose

Identifying with a positive role model

- To enable older people assume a direct connection between nutrition and mental capacities.
- To be able to develop an action plan to “be” like Leonardo.

Rationale & benefits

A persons’ identity can influence what they believe in, what for them is important and last but not least how they behave.

This exercise promotes Leonardo’s modelling of identity, which illustrates a link between nutritional habits and each person’s mental fitness by encouraging behaviours for mental wellbeing.

Methodology

Duration: 30 minutes.

Size: Between 5 and 10 people.

Instructions for facilitators:

- Ask each learner to read “The Diet of Leonardo Da Vinci: Secrets for Eating Your Way to Genius.”
- Ask learners in which way, in their opinion, Leonardo’s diet has positively influenced his mental fitness in life.
- Ask in which way each learner could “be” Leonardo from the point of view of their own attitude in personal nutrition habits,

paying attention on the differences of their own model.

- Ask learners how they imagine themselves after 5 and then after 10 years of being like Leonardo Da Vinci.
- Conclude the exercise with the following questions:
 - How did you feel during this simulation?
 - Which kind of changes could you implement to be like Leonardo?

Training method:

- Group work.

Materials needed:

- Extra document (➔ Toolbox: M4.2 The Diet of Leonardo).

Recommendations

Possible concerns:

During the exercise, the facilitator should pay attention and ask the learner to “be like Leonardo” rather than “believing in being Leonardo” or “behaving like Leonardo”, as these two last requirements act at a more superficial and less effective neurological level.

Variations:

- The document could be read aloud by one learner in case there are some learners having vision problems.

Affirmation:






- Learners become aware of the relationship between how they eat and how they develop their mental fitness

experiencing the sensations of how to increase mental wellbeing ... like Leonardo.

Further readings (36; 52; 62)



M4.3 | Smart Recipes

Mental fitness <ul style="list-style-type: none"> • Executive functions (seriation, planning) • Sensation – Perception (discriminant perception) 	Interaction  connecting	Duration  60 minutes	Group size  between 5 and 10 people	Method   individual and group work
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Purpose

Understanding and preparing value foods

- To develop work organisation skills, planning and abstract reasoning when given a certain task.
- To develop mathematical/quantity calculation skills through the correct choice of right ingredients balance.
- To develop sensory perception through smelling and tasting skills that people lose when getting older.

Rationale & benefits

This is one of the few exercises that deal with the perceptions of taste and smell.

It is a manual/practical activity that involves a considerable number of cognitive and planning skills.

It encourages learners to briefly explain what are important foods for a right mental fitness and how to maintain it.

Methodology

Duration: 60 minutes.

Size: Between 5 and 10 people.

Instructions for facilitators:

Phase 1 (40 minutes):

- Facilitator briefly explains the best diet to keep a healthy brain and indicates some foods or nutritional substances that can contribute to this purpose.

- Facilitator shows a list of these ingredients and others commonly used for cooking, graded according to a “healthy scale” list of values in order to achieve a healthy lifestyle. For example: rice 15 points, butter 4, meat 7, salmon 15, eggs 4, sugar 3, etc.
- At this point each learner will create and write a recipe using these substances, trying to make it as appetising as possible by using ingredients showing a high point-value.
- Each one of them might use this recipe at home, bringing the dish to the next meeting.

Phase 2 (20 minutes):

- Sharing in tasting the “invented recipe”. During this activity all learners will be blindfolded and will have to taste one dish at a time, trying to guess the ingredients using, the sense of smell and taste.

Training method:

- Individual and group work.

Materials needed:

- A list of ingredients and their “points” according to a healthy perspective (→ Toolbox: M4.3 Smart recipes).
- A blindfold for each participant, dishes and forks.

Recommendations

Possible concerns:

Ingredients need to be easy to source and recipes manageable to cook.

“Healthy scale points” might be taken out if too complex.

Variations:

- Use single foods or ingredients in order to teach the values of smells and tastes, having learners trying to guess them with their eyes closed or blindfolded.
- Could be linked to Scent of a Melody (M1.4)

Affirmation:





- Successful completion of a creative and practical relevant task.

- Emotional participation.
- Confrontation and constructive competition among learners.
- Self-confidence through preparation and presentation to others.

Further readings (48; 55; 89)



M4.4 | A Proverbial Hunger

Mental fitness <ul style="list-style-type: none"> • Memory (long-term memory) • Language (comprehension) • Reasoning (problem solving) 	Interaction  collaborating	Duration  30 minutes	Group size  between 5 and 15 people	Method  group work
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Purpose

Using proverbs on nutrition to increase long term memory

- To refresh knowledge of learners to remember old proverbs or sayings about food.
- To expand awareness about false beliefs regarding foods and about nutrition values of certain foods.

Rationale & benefits

This is a classic language comprehension and problem solving exercise that gives the chance to dismiss false beliefs about certain eating habits.

It also gives learners the chance of sharing and confronting with the rest of the group their own eating traditions, according to country of origin.

Methodology

Duration: 30 minutes.

Size: Between 5 and 15 people.

Instructions for facilitators:

- Facilitator has prepared a few cards listing a saying or proverb about proper nutrition, diet, food in general (for example “an apple a day keeps the doctor away”), but these cards will have some blank spaces and missing words that they will have to guess like “An ... a day keeps ... away”.

- Sentences are selected according to an increasing level of difficulty and learners are requested to solve the drills all together, leaving time for comments and opinion sharing.
- Take inspiration from local traditions and history of the countries of origin of learners. Use jargon or dialects to inspire forgotten personal memories.
- This might include:
 - Eat like a bird.
 - You are what you eat.
 - There’s no such a thing as a free lunch.
 - You can’t make an omelette without breaking eggs.
 - Eating carrots will help you see in the dark.
 - The cream will always rise to the top.
 - Eat your greens to make you strong.
 - Don’t bite off more than you can chew.
 - The proof of the pudding is in the eating.
 - Half a loaf is better than none.
 - Too many cooks spoil the broth.

Training method:

- Group work

Materials needed:

- Sufficiently large cards of size not less than A4 paper format.

Recommendations

Possible concerns:

Facilitator must search for proverbs, cue words and sayings, using both well-known and less known patterns.

Variations:

- This exercise can be done using other languages to increase comprehension and production in foreign languages and cultures.
- Use blank spaces and missing words to make the guessing exercise a bit more difficult.

Affirmation:




- This exercise will increase opinion sharing and a number of old memories that can come up during the game.

- It will improve self-esteem and confidence through having gained a skill or improved existing skills and it will consolidate the togetherness of the group oriented to solve a common problem.
- Finally it will raise awareness of the paths of life of each learner through memory boosting and listening to others.

Further readings (73)



M4.5 | Neither Fish Nor Meat

<p>Mental fitness</p> <ul style="list-style-type: none"> • Memory (long-term memory) • Executive functions (categorisation) 	<p>Interaction</p>  <p>connecting</p>	<p>Duration</p>  <p>30 minutes</p>	<p>Group size</p>  <p>between 5 and 25 people</p>	<p>Method</p>  <p>individual or pair work</p>
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Purpose

Matching foods with their nutritional groups

- To explain why nutritional values are essential for mental fitness.
- To enhance cognitive parameters like memory, attention and focus.
- To raise knowledge about the nutritional value of different foods.

Rationale & benefits

In this activity, the nutritional properties of foods will be learnt by older people and will provide the knowledge to value and select, taking into account personal diet plans.

The game/play format of the exercise favours the involvement of groups or individuals, creating a climate of trust and fun.

Methodology

Duration: 30 minutes.

Size: Between 5 and 25 people.

Instructions for facilitators:

- Each learner is given a template showing the seven nutritional groups (M4.05 extra table) and their main nutritional values. Briefly explain their meaning and ask to fill in the blank spaces next to each category.
- Facilitator will have to hand-out numbered “food cards” showing the name of foods, their picture or their main nutritional value (example “vitamin A”) and the learners will be asked to insert in

their templates, the number corresponding to the food card in its proper nutritional category.

- Once all the cards are completed, all learners will have to match their answers to the correct ones.

Training method:

- Single or pair work.

Materials needed:

- A scheme for each participant listing the nutritional groups (→ Toolbox: M4.5 Neither fish nor meat).
- A deck of numbered food cards, showing a description or picture of foods, of size not less than A4 paper format (to be prepared by the facilitators).

Recommendations

Possible concerns:

This exercise is simple with easy instructions and rules and requires a minimum basic previous knowledge of food groups listed on playing cards; also the necessary activity tools are simple to set up: hand-outs, cards, nutritional categories etc.

Variations:

- Food cards might contain pictures or descriptions of unusual, exotic foods so to create a more difficult challenge for learners.
- If learners prove to be particularly mentally astute, then activity can be timed and exercise made more competitive.





- This exercise can be done as a group: its procedure will be the same as per the “individual format”, but two small groups competing with each other, keeping record of time and answers.
- This exercise could also be proposed on-line with a specific computer application procedure.
- This exercise can be intended as a continuation of Pyramid Builders (M4.7), using the relative list of foods.
- Realisation of knowledge. Count the number of right answers.
- Discussion round asking learners to explain the difficulty level encountered their interest and involvement rate.

Further readings (6; 48; 102)

Affirmation:



M4.6 | Eat The World

Mental fitness <ul style="list-style-type: none"> • Memory (long-term) • Reasoning (problem solving) • Attention (divided) • Sensation – Perception (visuospatial ability) 	Interaction  collaborating	Duration  60 minutes	Group size  between 5 and 15 people	Method  individual work
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Purpose

Using geography to learn food habits

- To expand the knowledge of the variety of global nutrition and to make diets more pleasant.
- To stimulate cognitive skills such as abstract thinking, analogy, visual-spatial abilities, long and short-term memory and inference and geo-spatial skills.
- To boost the curiosity and the knowledge of other habits and customs.

Rationale & benefits

This exercise stimulates cognitive functions through games mediated by a facilitator in order to expand knowledge of our global nutritional variety and opportunity.

Learners will be taught new recipes with the aim to make their diet more pleasant and interesting. This draws on the emotional aspect of memories and the curiosity to learn new things.

Methodology

Duration: 60 minutes.

Size: Between 5 and 15 people.

Instructions for facilitators:

- A list of typical food/drinks from at least 15 countries will be presented on a large poster with each food item indicated with a number.

- Each learner is given a sheet of paper to write the facilitator's questions and their own answers.
- Facilitator asks them to think about which kind of food they would find going for example 20 km north from their base location, then by flying 2000 km east. Each learner has to write the number of the food among the ones indicated on the poster and the results will be compared to the ones given by the facilitator.
- Each learner receives a map showing all the countries and will be requested to put a typical food/drink on each country (indicated by the number). Then all learners share their results and they compare them with the map of the facilitator.
- Performance ranking and nomination of the winner.
- Facilitator to foster discussion asking which aspects of geography can influence the kind of foods eaten.

Training method:

- Individual work.

Materials needed:

- A list of all chosen foods and drinks with specific numbers.
- A blank poster.
- An A4 map with clearly visible country names.

Recommendations

Possible concerns:

Difficulty in this case might depend on the kind of questions the facilitator prepares as well as on the rarity and level of popularity of the listed foods.

Variations:

- Might also be made using a computer, following step by step the questions and receiving results at the end.

Affirmation:

- Understanding of other foods.
- Working with the group and getting feedback.






Further readings (8; 71; 80; 116)



By J. Jesús Delgado Peña



M4.7 | Pyramid Builders

Mental fitness <ul style="list-style-type: none"> • Memory (long-term memory) • Executive functions (categorisation, seriation, planning) 	Interaction  connecting	Duration  30 minutes	Group size  between 10 and 20 people	Method   individual and group work
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Purpose

Opening minds to regular eating

- To learn about the most important social and psychological parameters that guide food choices.
- To stimulate long and short-term memory.
- To retrieve attention.
- To enhance self-efficacy and introspection.
- To stimulate comprehension of rules and complex instructions.

Rationale & benefits

This exercise gives each learner the ability to understand their own nutritional habits, to uncover sometimes hidden mechanism why we often choose a specific food instead of another.

It also illustrates the Mediterranean Diet, widely recognised as the healthiest by professional literature, using the Food Pyramid technique.

Methodology

Duration: 60 minutes.

Size: Between 10 and 20 people.

Instructions for facilitators:

- Each learner gets a Food Pyramid diagram showing the best and most suitable for older people and a “List A” of main foods with name and pictures. Explain that the base of the Pyramid includes a list of the

healthiest foods and the top includes those which should be mostly avoided.

- Learners receive a figure of a “blank” Pyramid (without any food listed) and are requested to fill it according to their individual taste and choice: the most appetising at the bottom of this Pyramid and the least at the top.
- Learners then receive another blank Pyramid and are requested to fill it without using “List A”, this time according to perceived price level with the cheapest at the bottom and most expensive at the top.
- Learners will receive another blank Pyramid and are requested to fill it using “List A”, this time according to ease of finding on/in the market, with the easiest at the bottom and the most difficult at the top.
- At the end of this activity, all Pyramids will be shown in the group; some questions to stimulate the comparative analysis:
 - “Do you find any differences among the Pyramids?”
 - “Which are the foods that do not vary a lot and are mostly present and which ones are unusual?”
 - “Do you think you could change your personal customary Food Pyramids adopting instead a more Mediterranean like Pyramid?” If so how?

Training method:

- Individual and group work.

Materials needed:

- For each learner: 1 figure of a Health Pyramid, 1 list of food items, 3 drawings of blank Pyramids in A4.
- See working sheets (→ Toolbox: M4.7 Pyramid builders).

Recommendations

Possible concerns:

The exercise may be difficult in the beginning, when trying to correctly understand instructions to fill out the pyramids with all the names of food items. But older learners should make comparisons on their own, following some hints and specific questions. Facilitator needs to be well prepared.

Variations:

- Learners may be asked to guess why some foods are at the base of the food pyramid

diagram and some on the top, before getting explanations from the facilitators

- The activity could be done either individually, with a computer or via internet.
- The activity could be also performed in groups of two.

Affirmation:

By passing around an appreciation questionnaire or adopting an on-line procedure showing at the end a rating box showing individual appreciation. The questionnaire should be produced by facilitators according to the typology of the learners.





Further readings (81; 86; 88; 89)



By Alessia Fabbro



M4.8 | Mind Your Food Habits

Mental fitness <ul style="list-style-type: none"> • Language (production) • Reasoning (logical reasoning) 	Interaction  collaborating	Duration  60 minutes	Group size  between 8 and 20 people	Method  group work
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Purpose

Investigating and sharing nutritional lifestyles.

- To make learners aware of their common eating habits and the possible consequences on their mental fitness.
- To develop healthy nutrition habits, and encourage behavioural change to overcome reluctance.
- To stimulate older learners to research proper information about consequences when following poor eating habits and to learn strategies to modify them.

Rationale & benefits

The eating habits of older people influence their mental fitness and physical health. They need to start understanding their changing process by analysing their lifestyle and sharing opinions with others.

This activity promotes awareness and suggests possible changes in older people's nutritional habits.

Methodology

Duration: 60 minutes.

Size: Between 8 and 20 people.

Instructions for facilitators:

- Give information: Learners understand that "according to studies on this issue, some foods can impact negatively on the

cognitive functions of people in the long term".

- Each should describe and share their own average eating day pattern with all the others, also to find recurrent habits.
- To raise awareness ask everybody "what could be the consequences of our eating habits and how could we document them using external resources?" and help to explore potential sources.
- Working as a group, learners to write down or discuss about a list of good intentions about their eating habits, the reasons why they adopted them.
- Each learner should commit to the rest of the group to adopt a strategy to improve their own eating habits.
- Help learners to acknowledge that their challenge is positive and achievable.

Training method:

- Group work.

Materials needed:

- For initial information base on → Toolbox: M4.3 Smart recipes.
- For raising awareness use paper hand-outs (→ Toolbox: M4.8 Mind your food habits D and E) with indications about where to find proper external information and to create a list of positive intentions..

Recommendations

Possible concerns:

This exercise may trigger unwanted opinions or advice which could lead to resistance to change and opposing attitudes.

Variations:

- To allow for more dynamics it could be done in a standing position were learners face each other (e.g. outdoors) using both words and gestures.

Affirmation:

- Awareness of some eating habits which need to be modified or replaced.
- Recognition that change might happen..

Further readings (38; 94)



By J. Jesús Delgado Peña



3.5 Module 5: Physical fitness and mental fitness

3.5.1 Introduction

Physical activity and physical fitness in general has been closely associated with mental fitness. Many experimental and epidemiological surveys have shown that there is an inseparable relationship and interaction between physical and mental fitness and in general between physical activity and health. Evidence shows that when correctly planned, physical activity is considered to be a prerequisite in a person's physical and mental development. This is in complete accordance with the ancient Greeks who used to support the saying "Healthy mind - healthy body" and they could not be more right about it.

Cardiorespiratory fitness, muscular strength and endurance, body composition and flexibility are factors greatly influenced by the level of physical activity one persists. Along with these, mental fitness is also strongly depended by an individual's level of physical activity. Guidelines suggest that regular exercise significantly improves an individual's level of mental fitness (106). In specific it has been proved that through exercise, oxygen transfer to the brain is increased. This, helps us improve memory, reasoning abilities and of course reaction time.

In order to understand and adapt the process of active ageing we must realise that we need to take care of our body in order to serve us and not us serving our body. There are many unwanted consequences coming from sedentary lifestyle such as arthritis, osteoporosis, cardiac and other diseases etc. Biological deterioration derives from hypokinetic behaviour and does not limit its effect on the muscular or skeletal system. It further expands on physiological functions, biochemical reactions, morphological and biological abilities and of course on the psychological and mental ability of a person.

Physical activity is a strong antidote against all unwanted consequences. By simply applying the appropriate intensity and duration in our exercise programme we offer a lot to ourselves. It should be strongly noted that exercise ,besides all the physiological, social and biological benefits, significantly supports and empowers the psychological condition of a person. It decreases stress and depression symptoms and positively acts on self-confidence and self-appreciation (12; 61).







3.5.2 Activities and exercises

Number	Name
M5.1	Pass The Twine
M5.2	Dance of the Day
M5.3	Mirror, Mirror Tell Me The Truth
M5.4	As Many As Possible
M5.5	Let's MOVE!!
M5.6	Fill-in the Parts
M5.7	Find The Way
M5.8	Treasure Hunt



M5.1 | Pass the Twine

Mental fitness <ul style="list-style-type: none"> • Memory (short-term memory) • Executive functions (seriation) 	Interaction  connecting	Duration  30 minutes	Group size  between 5 and 20 people	Method  group work
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Purpose

Introducing and remembering names

- To promote inclusion, to break the ice between each individual and help all members engage in a group.
- To provide mental fitness exercise.

Rationale & benefits

People entering a class or a group for the first time often have difficulties in adjusting themselves. The exercise is used to break the ice between members of a group who meet for the first time and make them feel comfortable against each other. It strengthens memory and empowers cooperation, at the same time connecting people in an easy and enjoyable way.

Methodology

Duration: 30 minutes.

Size: Between 5 and 20 people

Instructions for facilitators:

- Ask learners to form a circle.
- The twine is passed or thrown around the circle in any direction and in different ways (e.g. jump and throw) while each learner is asked to hold the end of it and introduce them by saying their name.
- When all learners have said their names twice, each one of them is asked to repeat

the procedure but this time they have to call the name of the person receiving the twine.

- At the end, passing around or tossing the twine results in the formation of a net or a shape in the middle of the circle.

Training method:

- Group work.

Materials needed:

- A string, a rope.

Recommendations

Possible concerns: -

Variations:

The exercise can be varied in several ways:

- Complete one round towards a specific direction of passing or tossing the twine and then change.
- Define the passing/tossing movement, e.g. everyone passes twine behind the back.
- Ask not to call the receivers' name out loud but sum them up at the end, e.g. "I passed the twine to George and Lisa".
- The web created could be also undone in the reverse order.





Affirmation:

- Fun introduction of each learner.
- Task achievement.

Further reading (90), illustration in M5.2.



M5.2 | Dance of the Day

Mental fitness <ul style="list-style-type: none"> • Memory (short- & long-term memory) • Executive functions (seriation) • Sensation – Perception (visuospatial ability) 	Interaction  exchanging	Duration  45 minutes	Group size  between 5 and 20 people	Method  group work
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Purpose

Warming-up by repeating movements and names

- To form a group – to share an activity together and break down barriers to get to know each other – quick impressions about others in the group, become relaxed with each other.
- To provide mental fitness exercise.

Rationale & benefits

People meeting each other for the first time have difficulties making acquaintances, or being comfortable in each other's company.

This easy exercise helps overcome inhibitions, recognise others' feelings while remembering the names of other learners through association. The dance at the end of the exercise strengthens group cohesion.

The experience helps them to be open to others and to take part in group activities. Older people often have problems with their short term memory, which this exercise develops in an informal, enjoyable way.

Methodology

Duration: 45 minutes.

Size: Between 5 and 20 people

Instructions for facilitators:

- Ask learners to form a circle.

- Each learner is asked to show with a movement how they are feeling now and then say their names, e.g. by raising their hands and saying "Sophie".
- After each introduction, the entire group repeats the movement and says the respective name.
- When everyone has shown their individual movement and called their names, the group repeats the movement in a sequence together with the names so that a dance is formed. The dance will become longer after each learner's turn.
- When everyone has shown their movement, change the order, and go round (the order of the names and movements change).

Training method:

- Group work.

Materials needed:

-

Recommendations

Possible concerns:

-

Variations:

Vary the memory and recollection process in several ways, e.g.

- by not repeating all movements after each person, just sum up them occasionally.
- during/after the process you point at someone and the others have to show their movement and say his/her name.

- The exercise can be used not only for memorising names but also for other themes like “Show your favourite activity” or after studying healthy nutrition “Show a healthy food”, etc.
- Might be held inside or outdoors.

Affirmation:

- Positive atmosphere.
- Openness to others.
- Success in recollecting and following tasks.



Left: Pass the Twine (M5.1)







Right: Dance of the Day (M5.2)

Both by J. Jesús Delgado Peña



M5.3 | Mirror, Mirror Tell Me The Truth

Mental fitness <ul style="list-style-type: none"> • Language (production, comprehension) • Attention (selective attention) • Sensation – Perception (visuospatial ability) 	Interaction  collaborating	Duration  30 minutes	Group size  between 3 and 20 people	Method  group work
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Purpose

Creating, interpreting and re-creating body language

- To stimulate creative problem solving in communication.
- To encourage associative thinking and deep observation.
- To promote teamwork, empathy and patience.
- To foster body consciousness and mindfulness related to corporal expression and corporal interpretation of oral instructions.

Rationale & benefits

People are seldom conscious about their body language; however it plays an important role in communication.

The exercise invites learners to use their body in a mindful way while realising various topic-related postures, on the other hand they need to translate the body language into words which enables a third person to reproduce the same posture without seeing it.

Learners are stimulated to use creative language and associations, at the same time they also need to follow instructions.

This exercise trains fluid intelligence, language skills and communication, empathy and patience, besides strengthening the body and mind connection. Teamwork provokes sense of success and self-confidence.

Methodology

Duration: 30 minutes (three times).

Size: Between 3 and 20 people.

Instructions for facilitators:

- Ask people to form trios to work together.
- The first learner performs a posture improvising a characteristic representation of e.g. a profession, a feeling, an animal.
- The second person needs to explain carefully the posture to the third person who is standing blindfolded (or back on the first person). Thus the third learner is guided by the second one step by step till they succeed in realising the very same posture of the first person.
- Following realisation the trio members can share their experiences with each other or other group members.

Training method:

- Group work.

Materials needed:

-

Recommendations

Possible concerns:





In case of negative feelings related to being blindfolded peers can stand with backs to each other (except the one explaining).

Variations:

- Learners can be asked to draw their experiences or to write down the posture in as detail a way as possible.
 - They might also shape the posture in clay or make plasticine figures.
 - Groups can work in a “chain”. In this case everybody is blindfolded except the one who first explains the position to their neighbour (blindfolded).
- May follow Narrative Café (M3.3).
- Affirmation:**
- A positive experience of teamwork.
 - Experiencing a new situation and new way of observing and describing for the successful completion of a concrete task.
 - Improved self-esteem and confidence through having succeeded.



M5.4 | As Many as Possible

Mental fitness <ul style="list-style-type: none"> • Executive functions (initiative, seriation, planning) • Attention (selective) • Sensation – Perception (visuospatial ability) 	Interaction  collaborating	Duration  30 minutes	Group size  between 10 and 20 people	Method  pair work
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Purpose

Quick thinking and exercising the same time

- To improve attention and level of concentration.
- To practise and encourage quick thinking.
- To encourage peer work.

Rationale & benefits

Each pair of learners has the opportunity to share both physical and mental exercise. Movement ability for people over 50 years of age is gradually reduced whilst speed of thinking also decreases. The activity encourages both: physical and mental practice for learners. It also promotes peer work in a pleasant ambience.

Methodology

Duration: 30 minutes.

Size: Between 10 and 20 people.

Instructions for facilitators:

- Learners form pairs and select a spot in the room trying to be away from others.
- Learner A holds a balloon in his/her hands whereas learner B receives a piece of paper and a pencil.
- Learner A tries to hold the balloon in the air by hitting with hand and leg (alternatively) as long as possible, until he/she completes 6 hits.

- During these 6 hits learner B tries to write down as many words as possible starting from a given letter (given by the group leader).
- After the end of the round, learners switch roles. The pair who manages to write down most words from a given letter wins the round.

Training method:

- Pair work.

Materials needed:

- Balloons, paper, pencil.

Recommendations

Possible concerns:

Learners having difficulties with literacy.

Variations:

- Define the words that will be written down, e.g. only body parts, names, countries.
- Modify positions of learner A or body parts allowed for hitting the balloon.
- Learner A does the hits and calls the words at the same time whereas learner B writes down the words used.






Affirmation:

- Enjoyable ambience.

Further readings (30)



M5.5 | Let's MOVE!

Mental fitness <ul style="list-style-type: none"> • Executive functions (seriation) • Attention (selective) • Sensation – Perception (visuospatial ability) 	Interaction  collaborating	Duration  60 minutes	Group size  between 8 and 20 people	Method   individual and group work
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Purpose

Concentrating, recalling, planning

- To focus on specific exercises.
- To recall and be able to perform them.
- To share common practices and collaborate with peers in order to reach common objectives.

Rationale & benefits

Older people sometimes have problems concentrating, planning and recalling. This exercise helps learners to strengthen observation, overcome memory problems and increase cooperation between group members. The exercise requires a small choreography in the end which is performed as the end-product of the whole procedure.

Methodology

Duration: 60 minutes.

Size: Between 8 and 20 people

Instructions for facilitators:

- Draw two big circles on the floor with 8 stations on each circle. Each station on the circle consists of props showing physical activities and exercises which each learner has to imitate.
- Learners form 2 teams with each team to stand next to each circle.
- Learners from each team have to complete all 8 activities. They should all begin this at the same time.

- When they have finished, each should go to a predefined spot where they will wait for their team mate to finish.
- As soon as all team mates complete, each team will demonstrate to their team the activity they like best.
- When all learners have demonstrated their sport activity, they will do this one after another, forming a small choreography.

Training method:

- Individual and group work.

Materials needed:

- Props with physical activities (→ Toolbox: M5.5 Sample props).
- Any mean to draw a circle, e.g. chalk, pencil, sticking tape.

Recommendations

Possible concerns:

-

Variations:

- Addition of music.
- Increase or decrease difficulty by using different activities.





Affirmation:

- Positive response.
- Success in collecting, recalling and performing.

Further readings (61; 90)



M5.6 | Fill-in the Parts

Mental fitness <ul style="list-style-type: none"> • Reasoning (problem solving) • Sensation – Perception (visuospatial ability) 	Interaction  collaborating	Duration  30 minutes	Group size  between 10 and 20 people	Method  group work
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Purpose

Empowering identification, reasoning and problem solving

- To identify items in least time needed.
- To practice and improve problem solving.
- To improve physical and mental ability.
- To encourage group work.

Rationale & benefits

The activity encourages learners to improve physical ability and act as quickly as possible whilst at the same time using visual identification and recognition to reach problem solving. The need to collect, transfer and print the target on a piece of paper encourages learners to improve logical reasoning and short term memory of the outcomes of the present activity.

Methodology

Duration: 30 minutes.

Size: Between 10 and 20 people.

Instructions for facilitators:

- Learners form 2 or 3 groups and line up.
- Facilitator defines group leaders and describes exactly the number of body parts and organs learners are looking for.
- Each group receives a piece of paper and a pencil.

- Body parts and body organs are labelled and hidden in room or outdoor marked area.
- Each learner leaves his group and searches in the room or marked area for a labelled body part or body organ. They return only after he/she has found one.
- Teammate leaves only when the previous one has returned.
- Group leader draws each body part or organ brought by teammates until all body parts and organs previously mentioned by facilitator are present.
- Group that brings all labels and draws the human body with all necessary parts and organs first, is the winner.

Training method:

- Group work.

Materials needed:

- Props showing body parts and body organs.

Recommendations

Possible concerns:

-

Variations:

- Hand out human body drawn on a paper and ask learners to look for pictures hidden, to fill in missing parts.

Affirmation:





- Playful atmosphere.
- Learners have learned where is each body part and organ.

- Physical activity clearly involved as learners need to be as quick as possible to collect labels needed.

Further readings (1; 58)



M5.7 | Find the Way

Mental fitness <ul style="list-style-type: none"> • Executive functions (planning) • Reasoning (problem solving) • Sensation – Perception (visuospatial ability) 	Interaction  collaborating	Duration  60 minutes	Group size  between 10 and 20 people	Method  group work
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Purpose

Instructing for orientation

- To stimulate learners to select, focus and provide specific information that will help them guide their peers to find their way back.

Rationale & benefits

The exercise helps improving memory, attention and visuospatial orientation as learners are asked to select, remember and recall specific information that is considered important. The exercise requires a good level of physical and mental ability as learners are required to perform physical endurance and obtain a good level of memory and attention.

Methodology

Duration: 60 minutes.

Size: Between 10 and 20 people.

Instructions for facilitators:

- Learners form 2 teams. Facilitator leads the teams towards a pre-determined point.
- Each team is required to cover a specific distance in a specific time frame on foot dependent on the group of learners and the setting. During the walk each team should mark on a piece of paper 10 characteristics of the route (e.g. a statue). It is important that each consecutive

landmark can be seen from the previous one.

- When both teams have arrived at the meeting point (each one from a different route), they will exchange their mark-list in order to guide the other team through the other route.
- In this way, teams will exchange route and based on the mark-list they will attempt to return to the starting point.

Training method:

- Group work.

Materials needed:

- Paper and pencil.

Recommendations

Possible concerns:

Orienteering in a rural setting might be more difficult than in an urban area where landmarks are easier to be found. However walking in the town is easier than in the countryside. This should be taken into account depending on the physical and cognitive state of the learners.

Variations:

- Increase or decrease level of difficulty of the activity, e.g. instead of walking apply easy jogging, timing the route.
- Increase or decrease the level of mental ability required by choosing more difficult or easier routes.
- Could link to I did it my way (M1.5).





Affirmation:

- Successful completion.
- Improvement in observational skills.
- Realisation of the importance of team work.

Further readings (28)



M5.8 | Treasure Hunt

Mental fitness <ul style="list-style-type: none"> • Executive functions (seriation) • Reasoning (problem solving) • Sensation – Perception (visuospatial ability) 	Interaction  collaborating	Duration  50 minutes	Group size  between 10 and 20 people	Method  pair work
--	--	--	--	---

Purpose

Team-working, following instruction and implementing

- To cooperate with others, to follow instructions, to solve problems, to share common tasks and implement them.
- To stimulate mental and physical processes.

Rationale & benefits

Working in teams or in groups helps people to strengthen interaction and sharing experiences. The exercise empowers collaboration among peers and promotes instruction following in order to reach common goals.

Furthermore it reinforces problem solving and planning. Learners are asked to work in pairs to go through a series of tests in order to reach their goal. The goal of the game is to find the treasure before everyone else does. This gives strong motivation to each pair of learners to work quickly and effectively.

Methodology

Duration: 50 minutes.

Size: Between 10 and 20 people.

Instructions for facilitators:

- The activity is performed outdoors.
- Ask learners to form pairs.

- Each pair to implement all instructions given by each one of the 8 clues of the game and finally discover the treasure.
- Each clue requires specific actions/ activities to be implemented in order for the learners to be directed towards the next one, e.g. jog easily for 2 minutes then make 3 jumps to the right and jump up high once in order to find the next clue.
- Learners are motivated as “the pair who finds the treasure first is the winner of the game”.

Training method:

- Pair work.

Materials needed:

- Clues paper.
- Area map.
- Treasure.

Recommendations

Possible concerns:

It is advisable that a facilitator is located in each place with a clue in order to give instructions to the learners. In addition, facilitators should always inform the learners about the nature of the area. Learners' attention should be drawn on dangerous surfaces such as slippery or rough surfaces, muddy areas etc.

Variations:

The activity can be modified in the following ways:

- Instead of working in pairs, learners form two teams.
- Increasing or decreasing the level of difficulty for the activity needed to be executed in order to find each clue, e.g. instead of jogging for 2 min and making three jumps to the right to find the clue, learners may be asked to run for 5

minutes, take 30 steps and then go to push up position to find the clue.

Affirmation:

- Active participation.
- Collaboration.
- Successful completion.

Further readings (25; 61; 78)

4 Glossary

Active ageing | Active ageing can be generally described as the process optimising individuals and groups' opportunities for health, participation and security for an enhanced quality of life as people age. It includes that people realise their potentials for physical, social, and mental wellbeing throughout the entire life course in order to participate in society. (114).

Andragogy | Andragogy refers to teaching strategies especially developed for adult learners. It is often described as the "*art and science to teaching adults to learn*" (64) and is often interpreted as the process of engaging adult learners with the structure of learning experience.

Carbohydrates | Carbohydrates are one of the main dietary components. This category of foods includes sugars, starches, and fibre. The primary function of carbohydrates is to provide energy for the body, especially the brain and the nervous system. An enzyme called amylase helps break down carbohydrates into glucose (blood sugar), which is used for energy by the body (67).

Chronic stress | A state of prolonged tension from internal or external stressors, which may cause various physical manifestations, e.g. asthma, back pain, arrhythmias, fatigue, headaches, HTN, irritable bowel syndrome, ulcers, and suppress the immune system (91).

Cognitive performance | Cognition is the mental process by which knowledge is acquired, including perception, intuition, and reasoning. Cognitive performance is the human ability to acquire and utilise that knowledge (35).

Cognitive stimulation | This is defined as the group of techniques and strategies aimed at optimising the performance of cognitive skills and functions through the subject's involvement in a number of planned activities requiring them to use those skills, for instance including memory, reasoning, language, attention, concentration (51).

Coping | In psychology, coping is expending conscious effort to solve personal and interpersonal problems, and seeking to master, minimize or tolerate stress or conflict. The effectiveness of the coping efforts depend on the type of stressor/conflict, the particular individual, and the circumstances. Coping responses are partly controlled by personality (habitual traits), but also partly by the social context, particularly the nature of the stressful environment. Psychological coping mechanisms are commonly termed coping strategies or coping skills. Classification of these strategies into a broader architecture has not yet been agreed upon. Common distinctions are often made between various contrasting strategies, for example: problem-focused versus emotion-focused; engagement versus disengagement; cognitive versus behavioural (22). Weiten and Lloyd (112) have provided a useful summary of three broad types of coping strategies: (a) appraisal-focused, (b) problem-focused and (c) emotion-focused.

Distress | Distress is an aversive state in which a person is unable to adapt completely to stressors and their resulting stress and shows maladaptive behaviours. Distress is the opposite of eustress, the positive stress that motivates people (26).

Eustress | The word eustress consists of two parts. The prefix eu- derives from the Greek word meaning either "well" or "good." When attached to the word stress, it literally means "good stress". Eustress is not

defined by the stressor type, but rather how one perceives that stressor, e.g. a negative threat versus a positive challenge (46).

Fats | Fat is a fuel for the body, and the main form of fat is triglycerides. There are two main types of fat in food, saturated and unsaturated. Saturated fat is solid at room temperature, while unsaturated fats are liquids, or oils at room temperature. Saturated fat causes heart disease and high cholesterol in the blood. Unsaturated fat is healthier for the body, and helps reduce blood cholesterol levels (74).

Healthy ageing | The term stands for holistic view on health including physical, social and mental health opportunities, enables older people to take an active part in society without discrimination and to enjoy an independent and good quality of life. Therefore, it holistically takes into account many different aspects of life including key determinants such as (a) diet and nutrition, (b) social inclusion and participation, (c) physical activity, (d) education and lifelong learning, (e) environment and accessibility, (f) access to services, (g) new technologies, (h) employment and volunteering (40; 41).

Hypothesis | A hypothesis provides a possible answer or explanation to a question / problem, without establishing accurate information. A hypothesis is based on the theory / prior knowledge but is uncertain. Hypothesis is disproved or confirmed (often based on experiment and observation) and usually it depends on the culture, context and perspective.

Interaction | Interaction is the mutual influence that individuals and groups have upon one another in their attempts to solve problems; the general process whereby two or more persons are in meaningful contact as a result of which their behaviour is modified, however slightly.

Internalisation | Act incorporating information for long-term memory consolidation, emotional, mental or verbal memory, and linking data to more introverted feelings. As a result of this process future retrieval of internalized information is possible. Internalization can occur consciously or unconsciously. There are people internalising data more easily than other people (9).

Meditation | The act or process of meditating; A devotional exercise of or leading to contemplation; A contemplative discourse, usually on a religious or philosophical subject (2).

Mental fitness | It *“is a condition of optimal functioning that [...] includes goal setting, critical thinking, creative thinking, learning and memory, expressing ideas clearly, and developing a positive mental attitude that includes: optimism; mental flexibility; self-esteem and confidence; and a willingness to risk”* (27).

Mental wellbeing | Mental wellbeing is *“a dynamic state that refers to individuals’ ability to develop their potential, work productively and creatively, build strong and positive relationships with others and contribute to their community”* (63).

Mindfulness | Mindfulness practice can be associated with meditation practice that brings one to better general awareness, self-acceptance and inner balance. *“Mindfulness is a state of active, open attention on the present”* (31; 93). Originated in Buddhist tradition, it’s gaining more and more popularity and scientific attention nowadays. It has been proved that mindfulness practice has beneficial effect on health, e.g. on blood pressure, anxiety, obsessive-compulsive disorder, prevention of relapse in depression and drug addiction.

Neurobics | Neurobics is a neurocognitive health care research and development method for better cognitive performance and functioning. The method encourages involving more senses in everyday activities - such as showering or eating dinner with eyes closed. Moses V. Chao, Institute of Biomolecular Medicine NYU School of Medicine stated: *“Neurobics as developed by. Katz and Rubin is based upon solid scientific evidence that novel activities and exercises using all your senses can enhance the production of growth factors that strengthen synapses and improve mental fitness including memory”* (66).

Physical Activity: Is a behaviour that occurs in a variety of forms and contexts including free play, household chores, exercise, school physical education and organised sport. It refers to any body movement produced by skeletal muscles which results in a substantial increase over resting energy expenditure.

Physical fitness: is an adaptive state that varies with the individual’s growth and maturity status and with habitual physical activity and through paying attention to lifestyle.

Proteins | Protein is an important nutrient that builds muscles and bones and provides energy. Proteins are the building blocks of life. The body needs protein to repair and maintain itself. The basic structure of protein is a chain of amino acids. It is a major part of the skin, muscles, organs, and glands. You need protein in your diet to help your body repair cells and make new ones (68).

Psychosomatic disorder | Also called psychophysiological disorder, condition in which psychological stresses adversely affect physiological (somatic) functioning to the point of distress. Psychosomatic disorders resulting from stress may include hypertension, respiratory ailments, gastrointestinal disturbances, migraine and tension headaches, pelvic pain, impotence, frigidity, dermatitis, and ulcers (39).

Relaxation | The act of relaxing or the state of being relaxed; Refreshment of body or mind; recreation; A loosening or slackening (2).

Stress management | Methods of controlling factors that require a response or change within a person by identifying the stressors, eliminating negative stressors, and developing effective coping mechanisms to counteract the response constructively. Examples include progressive muscular relaxation, guided imagery, biofeedback, breathing techniques, and active problem solving (72).

Stressor | A stimulus or event that provokes a stress response in an organism. Stressors can be categorized as acute or chronic, and as external or internal to the organism (53).

Vitamins | Vitamins are a group of substances that are essential for normal cell function, growth, and development. There are 13 essential vitamins, meaning they are needed for the body to function. Each of the vitamins has an important job in the body. Not eating enough fruits, vegetables, beans, lentils, whole grains and fortified dairy foods may increase your risk for health problems, including heart disease, cancer, and poor bone health (69).

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