SUPPORTING AND MENTORING MATURE LEARNERS

A 'TRAIN THE TRAINER' PROGRAMME FOR FACILITATORS OF ICT LEARNING FOR OLDER ADULTS

MARVIN FORMOSA Ph.D.

SUPPORTING AND MENTORING MATURE LEARNERS

A TRAINING COURSE PROGRAMME FOR COMMUNITY LEADERS

This guidebook was commissioned by the Malta Communications Authority in its drive to improve the methodological skills of instructors and facilitators who teach Information and Communication Technology to persons aged 50-plus.

First published, 2015

Valletta Waterfront,
Pinto Wharf,
Floriana, FRN1913
Malta
http://www.mca.org.mt/

Dr. Marvin Formosa received a Ph.D. in gerontology from the University of Bristol, and is Senior Lecturer at the Gerontology Unit, Faculty for Social Wellbeing, University of Malta. His key interests are critical gerontology, sociology of later life, social class dynamics, and educational gerontology, on which he published various books and chapters in edited volumes and peer-reviewed journals. Recent publications include *Lifelong learning in later life: A handbook on older adult learning* (with Brian Findsen, 2011), *Social class in later life: Power, identity and lifestyle* (with Paul Higgs, 2013), *Learning across generations: Contemporary issues in older adult education* (with Schmidt-Hertha and Jelenc Krašovec, 2014), *Population ageing in Malta: Multidisciplinary perspectives* (with Charles Scerri, 2015), and *Ageing and later life in Malta: Issues, policies, and future trends* (2015). He can be contacted on marvin.formosa@um.edu.mt

TABLE OF CONTENTS

1. INTRODUCTION

Preamble

The development of this guidebook reflects the Malta Communications Authority's concern that demographics in Malta are changing to the extent that the proportion of older adults - compared to younger peers - is increasing at a very fast rate. The issue of how older adults spend their retirement is taking on new social and political significance. Mature persons are looking for new ways of remaining active. Whilst some continue working and/or looking for new leisure opportunities, others are seeking to develop new skills by participating in various formal and non-formal avenues of learning. The Malta Communications Authority joins the United Nations and the European Union in deeming mature learning as a productive investment on the basis that not only it engenders positive returns of economic growth, but also improves the quality of life and social development of older persons.

Mature learning refers to the process in which adults aged in the (*circa*) 50 - 75 age bracket, individually and in association with others, engage in direct encounter and then purposefully reflect upon, validate, transform, give personal meaning to and seek to integrate their ways of knowing (Findsen and Formosa, 2011). Learning in these mature years hold significant promise towards reaching more optimum levels of physical, psychological, and social well-being in later life. The key aim of this handbook is to lead community organisations to offer better and improved learning environments to mature learners. Its objectives include the

- adaptation of teaching and learning modes in adult education to the different conditions experienced by mature adult learners;
- management of the alignments between teachers and learners, teaching and learning processes, in environments where the learners are mature adults;
- influence of organisational and social contexts of mature learners as continuing participants in community learning;
- improvement of the competences and capabilities that are required by the trainers of tutors of mature learners; and
- delineating good practice in the teaching and learning of mature adults.

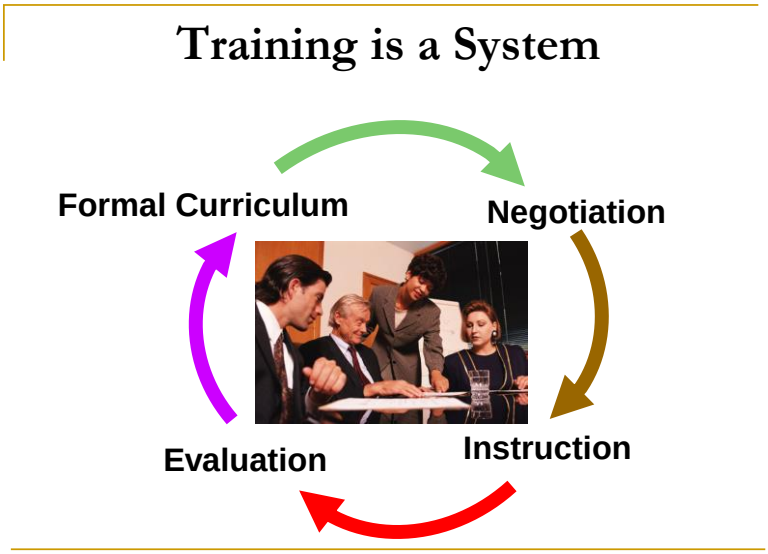
The handbook draws on practical experience, from planning and running events, to suggest ways to teach and train mature learners. It serves as a resource book to guide new projects that address the life transitions of mature learners in today's changing world. This handbook can be used by managers and tutors in different types of organisations and groups involved in lifelong learning projects. It also will be of value to adult educators, seniors' organisations, voluntary and welfare organisations and their networks, to local authorities and to

policymakers in the field. The goal of this handbook is to act as a *curriculum pack* for trainers who will be training tutors how to deal with mature learners. Hence, its primary objective is to develop among tutors sensitivity as which learning styles and strategies work best with mature learners.

Learning as a democratic and dialogic process

Prospective tutors should not perceive 'training' as a one way mode of communication, from tutor to learner, what in popular literature is usually referred to as the 'top-bottom' approach. Training follows, ultimately, a system approach (see figure 1). Although the term 'training' refers to an organised activity aimed at imparting information and/or instructions, or to help learners attain a required level of knowledge or skill, it is important for trainers to embed their learning sessions in a democratic process.

Democratic learning does not follow a strict uniform curriculum. Instead, emphasis is put on learning as a natural product of all human activity. In democratic learning, learners are given responsibility for their own education. There is no pressure, implicitly nor explicitly, on learners by tutors to memorise anything in particular. Learners must be given some power to focus, in other words, dedicate more time, to issues that they deem important to their training development. Hence, training courses following a democratic approach do not compare or rank learners through test and exam mechanisms.



1

In other words, education environments in mature learning need to be dialogic. The relationship between teaching and learning involves a two way process between teachers and students, rather than a 'top-bottom' approach where instructors simply 'deposit' knowledge into students. Educational processes must, therefore, follow a dialogic approach where tutor and learners are engaged in a relationship of mutuality. As a rule, tutors must respect learners and not try to force them to swallow knowledge without regard to their special needs. Tutors must not be overbearing, and above all, authoritarian. Learning must arise a partnership where the facilitator's role is to help learners develop into independent and self-regulating individuals. Indeed, informed choice forms the basis of mature learning, since learners who are able to act on the basis of informed choices are ultimately able to redefine societies and bring about social justice.

Of course, this does not mean that mature learning is characterised by a laissez-affaire approach. At the moment that tutors begin the dialogue, it must be apparent that they know more that the learners, both in terms of knowledge and in terms of the horizon that he or she want to get to. Tutors must therefore hold a position of authority deriving from their competence which, in turn, commands, respect.

Ageing, later life and mature learners

The terms 'ageing', 'later life' and 'mature learners' are key terms throughout this handbook, and hence, it is opportune at this point to provide working definitions for each.

Ageing refers to a process whereby people accumulate years and progressively experience changes to their biological, psychological and social functioning as they move through different phases in the life course. In other words, human ageing is conceptualised and experienced by individuals through processes of biological ageing, psychological ageing, and social ageing:

- Biological ageing refers to the fact that the passage of time for humans is related to a number of physical and biological changes that range from the greying of hair and wrinkling of the skin to the degeneration of one's reproductive capacity, immune system, and cardiovascular functioning.

- Psychological ageing highlights how the adult years also bring changes in personality, mental functioning, and sense of self. Whilst the memory and intelligence of some individuals improve as they age, others find themselves doing worse as they get older. Such decline or improvement is not simply related to changes in the ageing brain, but also the result of specific social contexts such as the historical era in which one is born and the contexts in which everyday lives are situated.

- Human ageing has a social element in that it does not occur in a linear manner according to scientific rules. Rather, people age differently according to the images, words, and behaviours of the world around them. The ageing experience of individuals is tied to the way in which society uses 'age' to assign people into roles, channel people in and out of positions in the social structure, allocate resources, and categorise citizens.

The meaning of 'later life' and 'mature learners' constitute an enormous bone of contention. Most empirical studies hinge the onset of later life upon a particular 'chronological' or calendar age, such as 60 as in the case of the UN or 65 as in the case of the Eurostat. National studies generally take the statutory retirement age as the onset of later life, a figure that is usually between the ages of 60 and 70. Studies of older adults in low-income countries, such as in Africa, take note of the lower life expectancies, and put the onset of later life as 50 or 55. However, calendar ages remain, in essence, only a rough indication to the ageing of individual in biological terms. Chronological age has no 'innate' meaning but is derived from the social and historical meaning of specific geographical contexts which, of course, may vary substantially. It is only useful in making sense and ordering large sets of quantifiable data, and as such, it tells researchers nothing about how it feels to be 'old'. Although in theory later life does arise as a social construction - that is, resulting from public policies, services and markets catering exclusively for the supposed needs of older adults - it remains that older adults are not only 'ageing' but also 'older'.

This handbook defines 'mature learners' as *people, whatever their chronological age, who are post-work and post-family, in the sense that they are less or no longer involved in an occupational career or with the major responsibilities for raising a family*. Later life is, therefore, contrasted with middle-age when most adults' revolve principally around their work careers and raising their young children.

This definition is promising because while it introduces some parameters as who is an older adult and who is not, it does not utilise them in a categorical manner. Although it is true that not everyone experiences all the stages present in the family and occupational lifecycles, and that the lifecycle in present times has mutated in a series of smaller segments, adults of a relatively advanced age tend to share two key experiences. First, after reaching a career peak as regards promotions and salaries, older families generally scale down their career expectations in return for retirement with some pension and health benefits, sometimes alongside some part-time work to keep busy and motivated. Secondly, despite the current variations in family dynamics, older adults tend to be part of families whose children are moving towards adulthood and/or have left home to the extent that parents' responsibilities for offspring decline substantially in later life.

2. THE END OF RETIREMENT AS WE KNOW IT!

The new millennium brought crucial changes to the latter stages of the life course. Whilst in the past people used to retire from work on to a passive role characterised by indolence and lethargy with falling health statuses, sparse income/assets and a relationship of strong dependency on state welfare, upcoming retirees - Malta's first generation of baby boomers - face a drastically different retirement. The combination of increased longevity and other social factors - such as improving health, establishment of the welfare institutions of retirement and pension schemes, and positive values and beliefs towards older persons - have opened up a new phase in life, where significant numbers of older persons spend a considerable amount of time in relative active years following exit from work.

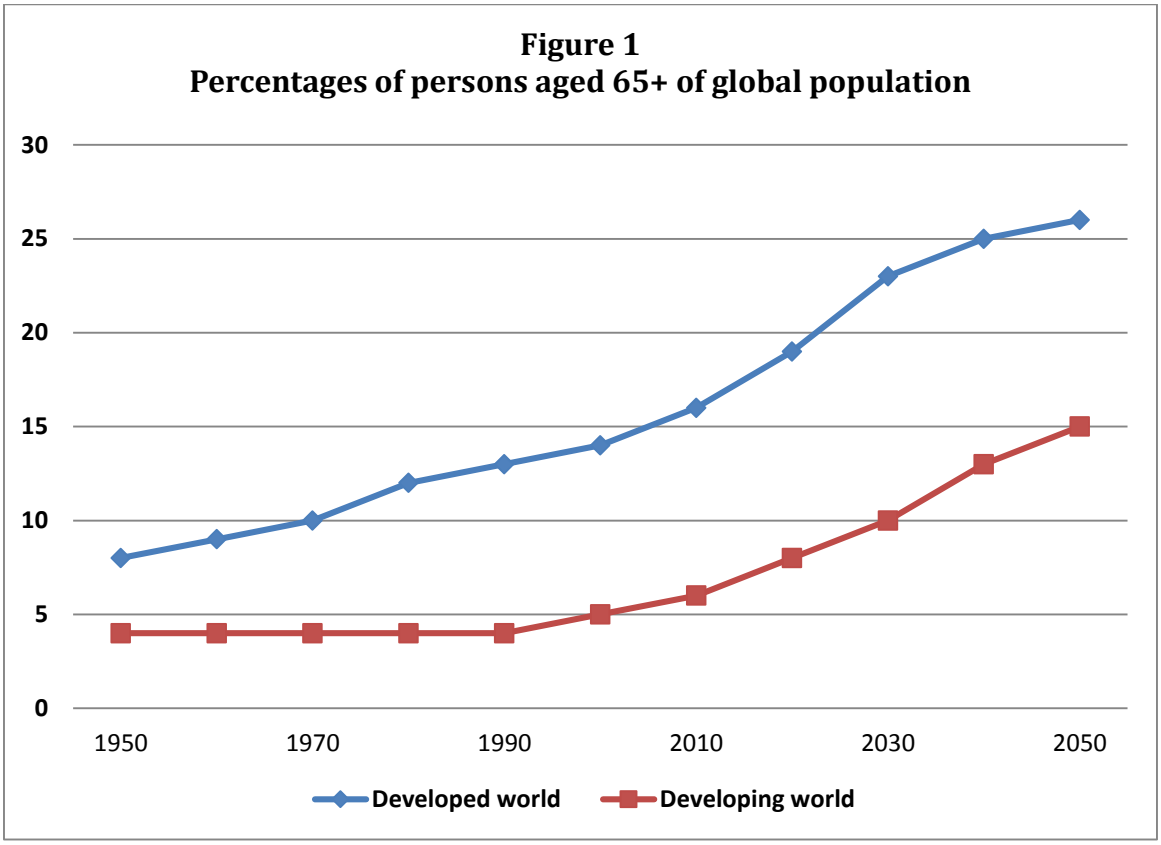
In retirement, baby boomers experience a life phase in which there is no longer career and child-raising issues to commander time - that is, a new kind of life phase in which the emphasis shifts towards liberation and identity 'refurbishment'. Upcoming retirees are now famous for their desire to take part in youthful lifestyles. The unifying theme of this 'youthful' drive is a desire to continue using one's talents to work in things one enjoys. As a result, people are retiring in stages with their post-career exit being the only role they are letting go in their hope to achieve a better life balance.

The age of ageing

The world is ageing. The second half of the Twentieth Century witnessed unprecedented demographic changes to the extent that this period is referred to as the 'age of ageing'. As a result of declining fertility and mortality levels, all countries throughout the world registered a decrease in the rate of birth and a major improvement of life expectancy at birth. While the number and percentages of younger age groups of children and adolescents have decreased, those of older persons aged 65 and older have increased significantly.

Statistical sources demonstrate how during the second half of the 20th Century most countries' population structure evolved out of a traditional pyramidal shape to an even-shaped block distribution of equal numbers at each age cohort except at the top (Figure 1). United Nations' [UN] statistics (2012) report that the world's number of people aged 60/80 years and over has reached 784/109 million (table 2.1). Only 274/54 million of these (respectively) live in the 'more developed regions'. Asia includes the highest number of older persons (430/49 million), followed by Europe (164/32 million). UN projections show that world's number of people aged 60/80 years and over will reach 2031/402 million in 2050. In percentage terms, in 2011, 11/2 percent of the world's population was aged 60/80 years or over, a percentage that will double in 2050.

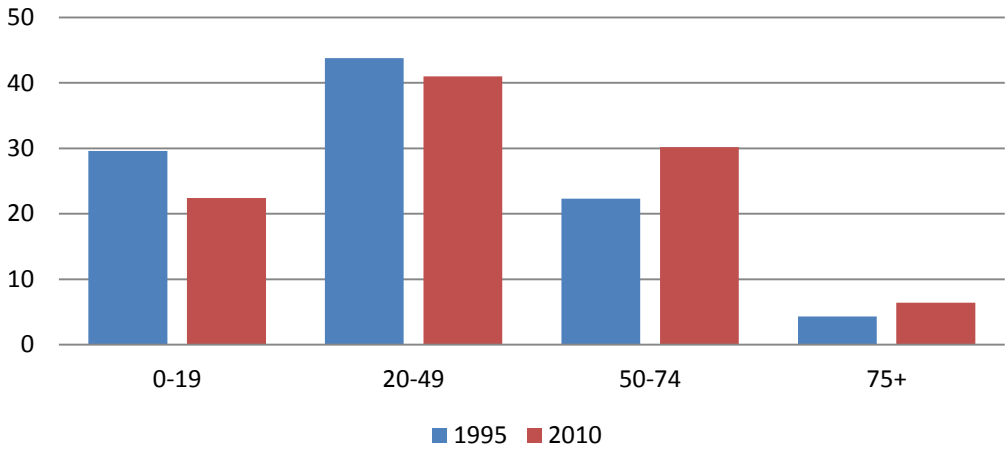
Figure 1
Percentages of persons aged 65+ of global population



Source: UN, (2012)

Malta is no exception. Malta's population has evolved out of a traditional pyramidal shape to an even-shaped block distribution of equal numbers at each age cohort except at the top (NSO, 2010). Whilst in 1985 the percentage of the 60+ and 75+ cohorts measured 14.3 and 3.8 percent, in 2009 these figures reached 22 and 6 percent respectively. This occurred as the birth rate declined to 1.3 per family, whilst life expectancy at birth for men/women increased from 70.8/76.0 years in 1985 to 77.7/81.4 years in 2005. Figure 2 indicates the stark changes in age composition in the 1995-2010 period. Projections estimate that in the year 2025 the percentage of older persons aged 60 and over will rise to 26.5 percent. Women are over-represented in older cohorts, with the masculinity ratio for age cohorts in the 80-84, 85-89 and 90+ age brackets reaching 63.0, 57.1, and 48.0 respectively in the year 2005. Single families headed by older females predominate, with older women being more frequent users than older men of health and social care services.

Figure 2: Maltese population by selected age brackets

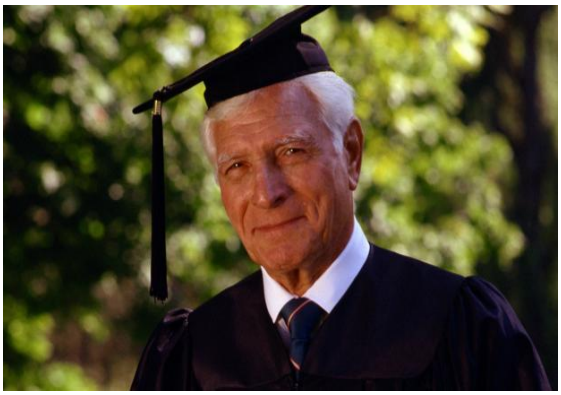


Source: NSO, (2011)

Similar to international trends, the last Census (2005) reported a negative correlation between age and educational status (NSO 2007). As much as 65 per cent of persons in the 60+ cohort had a primary level of education or less, with 80 per cent holding no educational qualifications. Some 17 per cent of persons aged 60+ were illiterate. Although Census data is not broken down by gender, research has found older women to hold a worse educational status compared to men. However, as a result of the implementation of educational policies earlier this century - especially the Compulsory Education Ordinance in 1946 which raised compulsory school to fourteen - older cohorts boast a better educational record than the preceding ones. This means that in the future the educational disparity between older and younger cohorts will be more equitable.

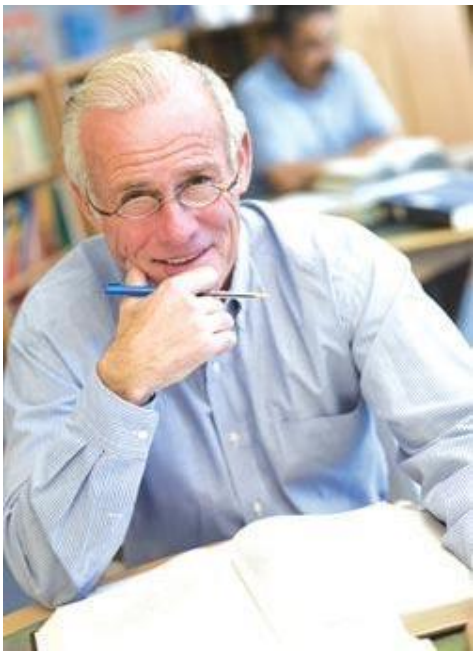
In recent years, and for the first time in Maltese history, the present and incoming cohorts of mature citizens - usually referred to as 'baby boomers' in popular literature - are redefining and reformulating the meaning of retirement. Fewer workers look at late adulthood (50 - 65 years) and early retirement (65 - 75 years) as a period of complete withdrawal from productive and social relations. Whilst in the final decades of the twentieth century, these two phases of the life course were highly synonymous with the concepts of 'passivity' and 'lethargy', nowadays most older workers and retirees are highly active and lead very productive lives. Indeed, many persons aged in the 50s and 60s are leading much more active lives compared to previous decades now that they are less involved in climbing up the career ladder and with raising young children. This coupling of the increasing life expectancies and changing attitudes on behalf of ageing citizens has led to the emergence of the third age. The 'third age' refers to a specific socio-demographic trend within population ageing. It alludes to how the combination of increased longevity and a number of other social factors - ranging from earlier retirement, improving health status, establishment of the welfare institutions of retirement and pensions schemes, to more positive values and beliefs towards older persons - have opened up what could be loosely termed as a new phase in life, in which significant numbers of older persons spend a considerable amount of time in relative active years following exit from work. The third age thus denotes the emergence of a period of time separating the working years on one hand, and frailty and death on the other. In Weiss and Bass's (2002 : 3) words, the third age is described as a "life phase in which there is no longer employment and child-raising to commander time, and before morbidity enters to limit activity and mortality brings everything to a close". Indeed, historical accounts show clearly how the meaning of retirement has evolved from a period of stability in the 1950s and 1960s when it was associated with exit from the workforce and entry into a relationship of dependency with state welfare, to a new kind of lifestyle in which the emphasis shifted towards health, liberation, and identity 'refurbishment'. Whilst in the past this phase was available only to a fortunate few, the wealthy and healthy, with the progression of the 20th century the majority of older adults began benefiting from this demographic revolution.

Of course, one of the activities that third agers are attracted to is learning. In present times, one finds many mature learners in formal educational avenues in Malta - such as the University of Malta, Institute of Tourism, the Maltese Council for Arts, Science and Technology, and the Directorate for Lifelong Learning. At the same time, many other mature learners participate actively in non-formal learning avenues, especially those organised on behalf of Local Councils and the Malta Communications Authority. The appeal of non-formal learning lies in the opportunity to engage in serious learning projects, socialize with peers, and engaging in physical and cognitive activities, but without any pressures of accreditation and assessment whatsoever. Older persons are also extensively involved in informal modes of learning - in a variety of contexts ranging from the family, religious institutions, mass media, the workplace, volunteering, and various community-based initiatives - as well as through the creative use of museums, theatres, libraries, online surfing, and travel. One successful learning organisation for third agers is the University of the Third Age which is the only voluntary institution in Malta that caters solely to the learning interests of older adults. Membership can be easily acquired by those who have passed their 60th birthday and willing to pay a nominal fee of €12. Some 643 persons (198 men, 445 women) were members at the beginning of the 2009/10 academic year.



This development of this handbook is precisely the result of the increasing figures of mature learners in educational environments. It would be a grave mistake to assume that mature learners approach the educational session in the same way that children and adults do. Whilst there is much overlap between the learning and teaching strategies employed is compulsory (0-16 years), continuing education (17-25 years), adult education (26 – 49 years), and mature learning (50+), there is no doubt that the latter group engage in learning and educational environments in a unique manner. This is the concern of the next chapter.

3. MATURE LEARNING



Learning is a lifelong activity and mature learners are not so distinctive to merit a special methodology of learning. Yet, it remains mature learners inhabit a physical, psychic, and social realm that is - to some extent - different from that experienced by younger and middle aged adults.

The learning/teaching styles pertaining to childhood and teenagehood are referred to as 'pedagogy', and therefore, contrasted to 'andragogy' which refers to 'the art and science of helping adults learn'. On one hand, pedagogy focuses on subject matter to be learned by individuals (especially children) who had no previous knowledge, and hence, had to be instructed and motivated by external influences. On the other hand, much of adults' most joyful and personally meaningful learning is undertaken with no specific goal in mind, unrelated to life tasks and instead represents a means by which adults can define themselves. The table below presents a comparison of assumptions between pedagogy and andragogy.

Table 1: Comparison of assumptions between pedagogy and andragogy

	Pedagogy	**Andragogy**
Learner	*Dependent.* Teacher directs what, when, how a subject is learned, and tests what has been learned.	*Self-directing and independent*. The task of the teacher is to encourage and nurture learning.
Experience	*Of little value*. Teacher experience and texts is what matters. Hence, teaching methods are didactic.	*A rich experience use as a resource.* Teaching methods include discussion, problem-solving etc.
Readiness	*People learn what society expects them to.* The curriculum is standardised.	*People learn what they need to know*. Learning programmes are organised around life application.
Orientation	*Acquisition of subject matter.* Curriculum organised by the subjects under focus.	*Learning based on experiences*. People are performance-centred in their learning.
Motivation	*External factors*. Examples include parents, fear of failure, etc.	*Internal factors*. Examples include self-esteem, quality of life, etc.

Source: Adapted from Knowles (1984 : 8-12)

Of course, it would be wrong assume that the art and science of helping adults and mature learners learn differ substantially. Without doubt, it is more valid to conceive the learning styles and patterns of persons in different generations as lying on some continuum. In other words, it is best of one conceives the teaching of younger, middle-aged, and mature learners as interrelated and overlapping fields, as a set of assumptions and guidelines about human learning in different phases of the life course.

Keeping in mind that the psychological, socio-economic, and physical transformations that characterise late adulthood, there is no doubt that andragogical principles need some fine tuning. In sum, one should not expect from mature learning to arise as some comprehensive educational theory for older adult learners, but only an awareness of and sensitivity towards gerontological issues (which, of course, will be highly diverse considering the widespread heterogeneous character of later life) that will surely aid facilitators of older adult learners to plan and execute more efficient learning experiences. Table 2 provides a comparison between younger/adult and mature learning.

Table 2: Comparison between younger/adult and mature learning

	Younger/adult learning	**Mature learning**
Goals	▪ accumulation of information ▪ discovery of new truths ▪ descriptive knowledge ▪ *how* to do certain things ▪ mastery of the outside world ▪ as a means of changing reality ▪ knowing how to deal with the expected and known	▪ deeper understanding of phenomena ▪ rediscovery of old truths ▪ interpretative knowledge ▪ *should* I do certain things? ▪ mastery of the inner world ▪ as a means to accept reality ▪ as a reams to deal with the expected and the unknown
Approach	▪ scientific ▪ theoretical ▪ abstract/detached ▪ separation of form from content ▪ distinction between subject and object ▪ impersonal	▪ spiritual ▪ applied ▪ concrete, involved ▪ integration of form and content ▪ synthesis of subject and object ▪ personal
Range	▪ time-bound ▪ narrow, particularistic ▪ limited, domain-related ▪ fragmented, specialised, selective	▪ timeless ▪ broad, holistic ▪ unlimited, universal ▪ comprehensive, integrated
Acquisition	▪ intelligence/cognition ▪ detached experience	▪ mixing cognition and self-reflection ▪ personal life experiences together with self-awareness

Source: Adapted from Ardelt (2000)

Goals. One common goal of learning is the search for truth. However, while the major aim of younger/adult learning is quantitative - that is, the accumulation of new truths in form of new, primarily descriptive knowledge and information (for example, how to surf the internet), the goal of mature learning is qualitative. It consists of a rediscovery of the significance of *old* truths (for example, 'what does it mean to me that all humans are mortal?'), a process that eventually leads to a deeper understanding of salient phenomena and events. A deeper understanding of phenomena and events becomes especially relevant in late adulthood when many people try to come to terms with missed opportunities in the past, unresolved issues, and declining possibilities.

Approach. In general, adult learning strives for knowledge that is obtained through a scientific, theoretical, abstract, and detached approach that separates form from content and the subject from the object of one's inquiries. As such, the development of knowledge in early and adulthood is strictly impersonal and is assumed to be independent of the knower and the concrete context. The independence of the knowledge from the knower allows for an easy cultural dissemination of intellectual knowledge, for example, through written or visual material. In comparison, the quest for knowledge on behalf of mature learning is spiritual. As documented in the ancient Western, Greek, and Eastern traditions, mature learners search for answers to the meaning and purpose of life and the human situation in particular (for 'why are we here, were do we come from, and where do we go?'), a topic that may become especially prevalent in the later years. Therefore, learning in late adulthood cannot remain abstract and detached but is necessarily applied and involved - essentially used to solve concrete everyday problems.

Range of knowledge. Most of adult knowledge is limited and restricted and subject to political and historical fluctuations. What may be considered to be the truth in a specific culture at one point in time (for example, 'women are inferior to men') may be viewed as utterly wrong at a different time in history. On the other hand, knowledge that interests mature learners is timeless and independent of scientific advancements or political and historical fluctuations because it provides universal answers to universal questions that concern the basic predicaments of the human condition. Mature learning is not restricted to a specific domain but penetrates all aspects of life, including one's private, family, and public life.

Acquisition of knowledge. The acquisition of knowledge in adult learning is strongly related to one's cognitive abilities. Hence, children and younger adults tend to find it easier to obtain intellectual knowledge than older persons because fluid intelligence tends to decline during the later years of life. Mature learning, on the other hand, is premised upon a combination of cognitive and personal self-reflection. Indeed, one key motive whereby older adults engage mature learning is to liberate themselves from their fears, jealousies, hostilities, and desires.
As the result of the above nuances between younger/adult and mature, it becomes apparent that the goals of mature learning differ from the objectives of compulsory and continuing

education. Rather than striving for the non-meaningful acquisition of knowledge, the overbearing goals of mature learning are as follows:

Empowerment. Empowerment may be defined as the process of enabling people to take greater control of their lives and to understand and exercise their rights. It requires knowledge, understanding and skills and a measure of self-belief. To be empowered, people have to be able to analyse their wants, needs and goals, and then to work out the best ways to achieve them. Empowerment is associated with notions of autonomy and independence.

Advocacy. This concept can be defined as 'support for or recommendation of a particular cause or policy or action'. It refers to the ability of people to speak out for themselves and to have greater control over their lives and, like empowerment, it entails having the information, knowledge, skills and confidence to represent oneself effectively.

Independence and self-fulfilment. Mature learning has an important role to play in helping families to live independent and fulfilling lives, whilst also coping with a fast-changing world. Learning in late adulthood can also help to overcome social exclusion and isolation, can further active citizenship, and bring benefits in fields such as housing, arts and culture.

Self-confidence. Research indicates clearly that learning activities tend to increase the self-confidence of those who take part, with most adults claiming that their participation in mature learning had a positive impact in ways such as increased self-confidence, enjoyment of life and the ability to cope with events.

Combating loneliness and depression. Many older people say that their learning activities help them to combat loneliness and depression and enable them to make new friends with whom 3they can then talk about issues that are bothering them.

Productive ageing. Mature learning encourages people to remain economically active up to and beyond the current state pension ages, which are set to rise in the near future. Later life learning can help older people to develop new skills for work, enable them to remain economically active for longer, as well as developing new interests and skills for leisure.

4. ICT LEARNING IN MIDLIFE AND LATE ADULTHOOD

ICT learning has become the fastest growing strategy of mature learning. This expansion occurred as the result of two parallel transformations. *On one hand*, whilst in the mid-1990s few middle-aged and older adults owned a computer, knew how to operate simple word processing tasks, or were aware of what the internet is, the situation has changed markedly in recent years. At the turn of the millennium, there were approximately more than 34 million internet users in the United States who were 55 years and older. Middle-aged and older adults are increasingly making use of the internet for email and research purposes, as well as to keep abreast of news, current events, and consumer affairs. Many also take advantage of cyberspace to watch television programmes, listen to the radio, read newspapers and ebooks, and download music and films. *On the other hand*, the development of the Web 2.0 internet programme has brought elearning at the forefront of learning provision. Although the Web 1.0 programme did hold the possibility for interactive field work, Web 2.0 offers the opportunity for users to command the internet and the presence of user-friendly applications that can be used by anyone with a simple click of a mouse. Tools such as Blogs, Wikis, Moodle, Podcasts, social bookmarking, and virtual picture databases, to mention some, all provide useful opportunities for efficient online learning. Users can access the information and communicate with others when and if they want to, and no other medium than the internet makes a faster sharing and retrieval of information. The internet differs from other mass media in that it is not a 'one-way street', whilst not negating in any way the possibility of personal meetings. Although attitudinal factors such as fears of computerisation and lack of confidence do impact on the success of older persons' mastery of new computer technology, many studies attest strongly to the capacities and abilities of middle-aged and older adults to master ICT.

Computer and internet access in Maltese households

Statistics issued by the National Statistics Office (2011) revealed that during 2010, 73 per cent of households had access to a computer from home. This was 6 percentage points higher than the 2009 estimate, indicating the ever increasing popularity of computer systems for personal use. This estimate falls to 42 per cent in the case of single person households, where an increase of 12 percentage points was noted when compared to the previous year. This disparity may be attributed to the fact that many households in this category are composed of elderly people, who, in general, may tend to be less conversant with ICT. At the other end of the spectrum, 96 per cent of households with two adults and children had computer access from home. This rate increased by 8 percentage points when compared to 2009.

Findings concerning internet access in households followed the same trends as those outlined above for computer access. In 2010, 70 per cent of households had Internet access, compared to 64 per cent in 2009. Furthermore 96 per cent of households comprising two adults and children benefitted from Internet facilities within the home. In this regard an increase of 12 percentage points was registered when compared to 2009. Broadband technology emerged as the main means by which households accessed the Internet, with an estimated 98 per cent of the total number of households having Internet access at home. This result reflects the current national situation, in which traditional dial-up systems have become increasingly unpopular.

Table 4.1. Households with access to a computer at home

	% household population		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
Total	**67.4**	**73.1**	**90,415**	**95,734**	**5,319**	**5.9**
Household composition:						
One adult without children	30.3	41.5	6,345	7,529	1,184	18.7
One adult with children	:	:	:	:	:	:
Two adults without children	48.3	47.8	16,497	16,081	-416	-2.5
Two adults with children	87.7	96.4	16,145	18,649	2,504	15.5
Three or more adults without children	81.6	87.7	37,998	40,770	2,772	7.3
Three or more adults with children	95.0	96.5	12,862	12,208	-654	-5.1

: Data not reliable due to small sample representation

Source: NSO, (2011)

The same survey also showed that 81 per cent of individuals had access to a computer at home in 2010. Computer usage is most common among the younger generation. In fact 97 per cent of individuals in the 16-24 age bracket had computer access from home. In addition, nearly all these persons also enjoyed Internet access within the household. On the other hand, individuals in the 65-74 age bracket are the least likely to own a computer, with computer availability estimated at 38 per cent. As much as 64 per cent of the target population made use of a computer during the three-month reference period, an increase of 7 per cent when compared to 2009. The majority of individuals using a computer were males, while increases in computer usage by individuals were noted in all age groups, except in the 65-74 category. The percentage of students using a computer went up from 96.6 per cent in 2009 to 100 per cent in 2010, making this group the most avid computer users. Among the respondents who made use of a computer during the three-month reference period, 79 per cent did so every day or almost every day, while a further 16 per cent used a computer at least once a week.

Table 4.2. Households with access to the Internet at home

	% household population		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
Total	**64.4**	**70.4**	**86,455**	**92,218**	**5,763**	**6.7**
Household composition:						
One adult without children	30.3	39.3	6,345	7,123	778	12.3
One adult with children	:	:	:	:	:	:
Two adults without children	43.6	43.7	14,884	14,673	-211	-1.4
Two adults with children	84.4	96.0	15,534	18,560	3,026	19.5
Three or more adults without children	78.3	85.1	36,467	39,541	3,074	8.4
Three or more adults with children	94.2	94.8	12,745	11,993	-752	-5.9

: Data not reliable due to small sample representation

Source: NSO, (2011)

Table 4.3. Profile of individuals having computer access at home: 2010

	% population			Absolute		
	Total	Males	Females	Total	Males	Females
Total	**80.8**	**81.9**	**79.7**	**252,940**	**128,544**	**124,396**
Age group:						
16-24	97.1	95.5	98.7	51,646	26,213	25,433
25-34	88.3	91.8	84.5	52,164	27,988	24,176
35-44	92.7	90.7	94.7	46,323	22,935	23,388
45-54	81.2	81.9	80.6	49,347	25,080	24,267
55-64	72.2	73.5	71.0	40,341	19,876	20,465
65-74	38.4	40.0	37.0	13,119	6,452	6,667

Source: NSO, (2011)

Table 4.4. Profile of computer users*

	% population		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
Total	**59.6**	**63.9**	**186,987**	**200,081**	**13,094**	**7.0**
Sex:						
Male	61.3	68.2	96,627	107,119	10,492	10.9
Female	57.9	59.6	90,360	92,962	2,602	2.9
Age group:						
16-24	94.2	99.2	49,433	52,795	3,362	6.8
25-34	76.8	87.1	46,914	51,486	4,572	9.7
35-44	69.9	78.6	35,612	39,277	3,665	10.3
45-54	51.9	54.1	30,693	32,872	2,179	7.1
55-64	27.4	33.7	15,936	18,823	2,887	18.1
65-74	26.4	14.1	8,399	4,828[u]	-3,571	-42.5

* includes only persons who used a computer during Q1 of the reference year
Source: NSO, (2011)

Results also showed that 78 per cent of individuals aged between 16 and 74 had access to the internet from home during the survey reference period. Internet access was most common among individuals aged between 16 and 24, followed by those falling in the 35-44 age bracket. Internet was least common among older persons, with only 30 per cent of individuals aged between 65 and 74 having access to the Internet at home. Internet popularity decreases with age and increases with the level of education. When analysing the frequency of Internet use, among individuals stating that they used the Internet during the first quarter of the reference year, 79 per cent used Internet every day or almost every day, while 17 per cent used the Internet at least once a week (but not every day). A majority of 95 per cent of Internet users said that they used the Internet at home. Just over a third of these Internet users also accessed the Internet at the place of work. During the first quarter of 2010, the most common activities for which the Internet was used were sending and receiving emails and searching for information about goods and services, with 88 per cent and 83 per cent respectively.

Table 4.5. Profile of individuals with access to the Internet at home: 2010

	% population			Absolute		
	Total	Males	Females	Total	Males	Females
Total	**78.4**	**79.9**	**76.9**	**245,480**	**125,504**	**119,976**
Age Group:						
16-24	96.6	95.5	97.8	51,411	26,213	25,198
25-34	86.7	88.7	84.5	51,247	27,071	24,176
35-44	92.2	89.7	94.7	46,072	22,684	23,388
45-54	79.4	82.1	76.7	48,263	25,165	23,098
55-64	68.0	69.7	66.3	37,959	18,857	19,102
65-74	30.8	34.2	27.8	10,528	5,514[u]	5,014[u]

Source: NSO, (2011)

Table 4.6. Profile of Internet users*

	% population		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
Total	**57.7**	**62.0**	**180,985**	**194,218**	**13,233**	**7.3**
Sex:						
Males	59.7	66.2	94,200	103,938	9,738	10.3
Females	55.6	57.9	86,785	90,280	3,495	4.0
Age Group:						
16-24	93.6	98.8	49,120	52,560	3,440	7.0
25-34	73.5	85.2	44,928	50,341	5,413	12.0
35-44	68.1	76.3	34,719	38,158	3,439	9.9
45-54	50.4	51.2	29,755	31,116	1,361	4.6
55-64	24.5	31.7	14,266	17,725	3,459	24.2
65-74	25.7	12.6	8,197	4,318[u]	-3,879	-47.3

* includes only persons who used a computer during Q1 of the reference year
Source: NSO, (2011)

The use of e-Government services has maintained its steady upward trend with an estimated 60 per cent of the target population stating that they made use of these services. The use of the Internet to search for information concerning public authorities was estimated at 56 per cent,

while the practice of downloading official forms stood at 45 per cent. The use of the Internet to submit filled-in forms (not via email) fell slightly behind other uses, with an estimated 24 per cent of Internet users saying that they did so during the three-month survey reference period. The distribution of e-Government users by age group was found to be very well equilibrated; the largest proportion of users (65 per cent) was recorded in the 45-54 age bracket, closely followed by the 34-44 age group (64 per cent). In both cases increases were recorded when compared to 2009. On the other hand Internet users aged between 65 and 74 were the least likely to make use of e-Government services (49 per cent). This study also revealed that 63 per cent of employed persons and 54 per cent of students made use of e-Government services.

Table 4.7. Profile of e-Government users*

	% Internet users		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
Total	**58.6**	**60.0**	**105,967**	**116,608**	**10,641**	**10.0**
Sex:						
Males	61.4	57.7	57,796	59,921	2,125	3.7
Females	55.5	62.8	48,171	56,687	8,516	17.7
Age Group:						
16-24	50.9	55.4	25,023	29,120	4,098	16.4
25-34	64.5	61.2	28,977	30,821	1,844	6.4
35-44	63.3	64.2	21,986	24,487	2,501	11.4
45-54	55.5	64.5	16,503	20,080	3,577	21.7
55-64	57.4	56.5	8,186	10,007	1,821	22.2
65-74	64.6	48.5	5,293[u]	2,094[u]	-3,199	-60.4

* Includes only persons who used the internet during Q1 of the reference year

The trade of goods and services over the Internet went up from 59 per cent in 2009 to 61 per cent in 2010. Results showed that 50 per cent of respondents who conducted e-Commerce did so to purchase items of clothing – as in 2009, these continue to be the most common items sought. Books, magazines and newspapers recorded a demand of 37 per cent and represented the second largest group of commodities purchased via e-Commerce. Hotel accommodation ranked third and recorded an increase of 4 percentage points over 2009. These statistics also revealed that the 92 per cent purchased goods via e-Commerce.

Table 4.8. Profile of e-Commerce users*

	% Internet users		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
Total	**58.6**	**60.0**	**105,977**	**117,597**	**11,620**	**11.0**
Sex:						
Males	64.4	63.0	60,671	65,476	4,805	7.9
Females	52.2	57.7	45,306	52,121	6,815	15.0
Age Group:						
16-24	65.2	67.8	32,046	35,640	3,594	11.2
25-34	72.4	69.0	32,522	34,722	2,200	6.8
35-44	61.4	58.8	21,324	22,445	1,121	5.3
45-54	44.9	51.9	13,368	16,158	2,790	20.9
55-64	32.0	40.1	4,566[u]	7,115	2,549	55.8
65-74	26.2	35.1	2,151[u]	1,517[u]	-634	-29.5

* Includes only persons who used the internet during Q1 of the reference year

Table 4.9. Recipients of computer training in the last three years*

	% Total		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
Total	**36.4**	**33.4**	**65,894**	**64,856**	**-1,038**	**-1.6**
Sex:						
Males	32.0	28.8	30,121	29,958	-163	-0.5
Females	41.2	38.7	35,773	34,898	-875	-2.4
Age Group:						
16-24	51.5	48.6	25,298	25,569	271	1.1
25-34	32.1	31.3	14,414	15,765	1,351	9.4
35-44	37.1	34.2	12,880	13,052	172	1.3
45-54	30.1	24.5	8,958	7,626	-1,332	-14.9
55-64	15.7	13.2	2,246[u]	2,332[u]	86	3.8
65-74	25.6	11.9	2,098[u]	512[u]	-1,586	-75.6

* Percentage of persons who have used a computer during Q1 of the reference year

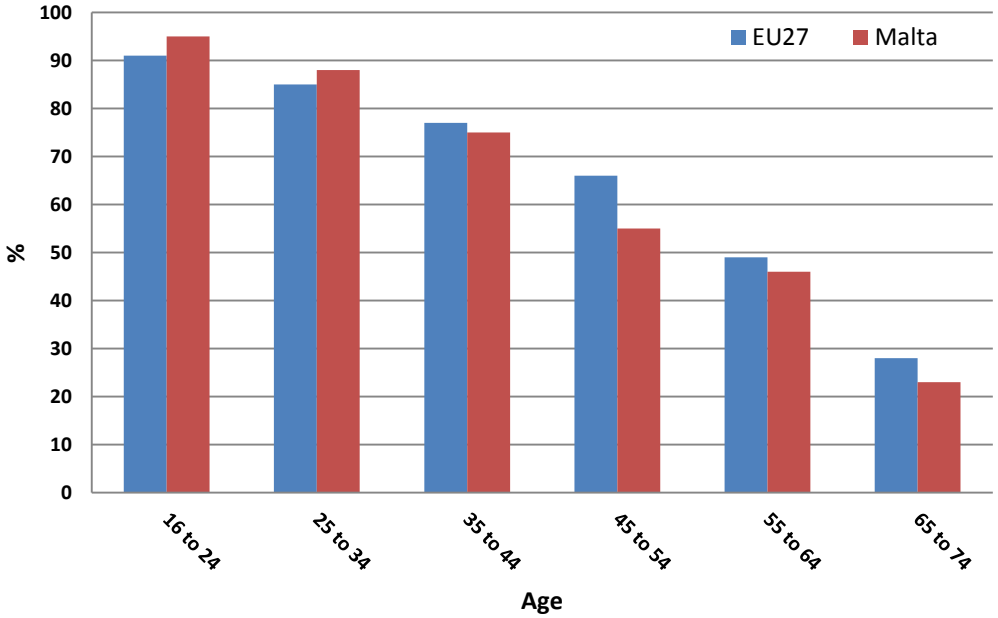
With regard to computer training it appeared that 34 per cent of the respondents received training over three years ago, while another third said they never received any kind of formal training. The ones that were most likely to receive this training were full-time students, with an estimated 63 per cent. On the other hand, only 33 per cent of persons in fulltime employment received some kind of training in the last three years.

Mature learners are also becoming proficient users of social networking sites. In the United States, for instance, one in ten internet users aged 55 and over have a social networking site profile although they are less likely than adults as a whole to say they use the internet for contact with older people (46 vs. 58 per cent). Yet other figures suggest a huge increase in the popularity of social networking sites such as Facebook amongst older adults. A research report in March 2009 noted that Facebook had added almost twice as many 50-64 year olds visitors (+13.6 million) as it had under 18 year old visitors (+7.3 million). Examining Facebook's own advertising reach figures for over 64 year olds between November 2008 and October 2009 a massive spike in usage is illustrated, the percentage increase over this period in the USA being 1230 per cent, in UK 390 per cent and Italy 1600 per cent.

Digital divide

The digital divide refers to any inequalities between groups, broadly construed, in terms of access to, use of, or knowledge of ICT. The divide inside generally refers to inequalities between individuals, households, businesses, and geographic areas at different socio-economic and demographic levels. Research suggests a multitude of variables for the digital divide, but mainly, education, income, age, ethnic origin, location, and gender. Income levels and educational attainment are identified as having the largest explanatory power to explain ICT access and usage, with age being a third important variable. This means that prototypical 'victims' to the digital divide can be foremost characterized as poorer, less educated, and older.

Figure 2: Internet usage by age (once a week or more)



Source: Eurostat, (2011)

This is certainly the case for Malta for, as the above figure 2 demonstrates, there lies a strong negative correlation between age and internet usage. Moreover, compared to the EU, Malta's divide as far as age is concerned is steeper. Studies show that report much less agreement with some attitude- and goal-related questions regarding the Internet than do people younger than 30. They are about half as likely as younger respondents to agree with such statements as, 'The Internet would help me find things', and 'I'm missing out by not being online'. Surprisingly, cost does not appear to explain much of the divide. When asked if the Internet is too expensive, only a third of mature and older learners agree, compared with half of those younger than 30. However, mature and older learners also tend to report more fears regarding privacy online than do younger peers. Mature and older learners particularly likely to give up Internet access as they age, at least not due to age per se. However, since many profess to surf the internet at work, retirement is a key factor why many stop going online. Indeed, losing ownership of a computer or a job that provided a computer explains the dropout status of more than one third of those who drop off the Internet. This pattern of responses from dropouts does not suggest a tendency for people to drop out as they get older. In fact, research reports that although mature and older learners are among the least likely to be Internet users, individuals in this age group were almost three times as likely to be Internet users if they were in the labour force than if they were not. For many, losing access appears due to relatively temporary or involuntary statuses.

The benefits of ICT learning in midlife and late adulthood

Providing ICT training to mature and older learners is a step in the right direction in increasing their willingness to use the Internet. One 4-month training program In the United States offering mature and older learners a chance to acquire and sharpen computer skills reported increased feelings of social support, connectivity, and reduced technology-related anxiety. Participating in elearning activities contributes immensely to the well-being and quality of life of middle-aged and older persons[1]. Online learning is particularly beneficial to all but especially those living alone, widowed, in rural environments, or having mobility restrictions. Computer use also increases self-esteem and feelings of self-control, whilst decreasing depression and improving mental capabilities. Older adults who use computers experience positive outcomes that include improvement in their overall productivity and in the activities of their daily living. Similarly, older adults who were trained to surf the internet and use email and chat rooms reported increased feelings of social support, connectivity, and reduced technology-related anxiety. Literature on internet use among mature and older adults suggests positive effects on psychological well-being of older learners. Many studies have, in fact, located positive influences of maintaining cyberspace communication on older adults' psychological well-being, with results locating a negative linear relationship between support network participation and perceived life stress. Other studies find that online learning increases older persons' socialisation and improves their life satisfaction. Research also confirms that there are beneficial outcomes of using a home computer for people who are likely to experience increased vulnerability as they age. Technology use could potentially support the functional independence of older people and, thus, enable them to continue living independently in their own homes. In the United States one researcher created an online community which gave mature learners the opportunity to address questions such as financial decisions, healthy lifestyle, management of disabilities and illness, friendships, relationships, passions, hobbies, work, and connection with family and friends.

Benefits gained from learning computing knowledge and skills can be classified into 'personal' and 'social development' benefits. In terms of personal development, the acquisition of computing knowledge and skills helped these interviewees develop a sense of efficacy. In one study, one learner described this sense of achievement as follows:

> We were invited to an exhibition; a stall was given to us. All of us, twenty something classmates put our works up on the board...and a lot of people visited our stall. They go, 'wow! These elderly people are very smart, know how to get online, everyone has their own web pages.' They took a good look. We were very happy. Don't you think we should be very happy? (Ng, 2008 : 8)

[1] Such conclusions, however, have to be read with caution since the majority of studies of internet use demonstrate what is commonly referred to as the 'digital divide' - namely, that it is older adults with higher incomes and better education who that have greater access to the Internet.

As the above excerpt shows, ICT provides mature learners with a sense of achievement had a deep personal meaning for those who did not have the privilege to enjoy formal school education due to difficult personal circumstances. Another interviewee commented,

> It's kind of forcing yourself to learn what you should have learned before. I've been a housewife for over twenty years. Until now, when I am already 67 years old, I got the chance to enrol (in this course). (Ng, 2008 : 8)

Computer learning tends to increase participants' self-efficacy, raise their self-esteem, and make them feel less marginalized from current society and family relatives. While self-efficacy is related to how well one can do a special task, self-esteem refers to an individual's overall perspective of himself or herself. Because of widespread computer use, adults who do not know how to use computers may feel marginalized. Thus, computer learning has the potential to improve learners' levels of social inclusion. Moreover, learning about computers leads participants to feel closer to their family relatives as they learn how to interact children and relatives living far away.

As regards social development, the most apparent social benefit in learning computing technologies is the development of friendship among participants. In the excerpt below, another learner described the friendship development process in the course of learning the new technologies as follows:

> I am very happy to see others coming to the class...we are kind of helping each other out when our memory does not serve us well. Gradually, we became good friends, like primary kids together studying things that we should have learned ages ago. We always remember each other, and if someone misses the class for a while, we'll go 'oh, haven't seen you for long... (Ng, 2008 : 8)

Indeed, computing knowledge and skills help mature learners become connected with their friends and relatives. Some examples are through sending e-mails to family members local and overseas, and designing cards and e-cards for friends. These newly acquired skills also enabled interviewees to contribute to the well-being of others. Similarly, another study examining the importance of Internet social networks and social capital among 154 older Internet users in Australia found that 90 per cent used the Internet to communicate with friends, 70 per cent with family, and 50 per cent with people of a common interest. Internet users reported that internet use also increased activity and satisfaction in interactions with people outside their immediate circle of family and friends. In addition, internet usage has been found to play an instrumental role in older people's daily lives in terms of shopping online and seeking health related information. A United States study examining homebound adults' learning and usage of Internet technology found usage to be associated with increased satisfaction with the amount of contact with others and increased levels of communication.

Other ways in which ICT could be developed so as to be of great benefit now to older people include:

Communication and social connectivity. With the breaking up of extended family networks which live physically close to each other, loneliness and social isolation are increasing problems faced by many older people and their families. Current technology such as email and video-telephony can help to bridge this communication gap. The development of more ambitious forms of communication and contact at a distance will further help to keep older people in touch with families and friends.

Access to information and services. Being able to shop and access services from home is clearly an advantage for people who have difficulty getting out. If such services are to be in general use by older people they will have to be made easy to use by a generation who have not been brought up with computers. With such a widening of their functionality, a large new market could open up for providers of goods and services.

Promoting lifelong learning. The development of computer-delivered education and training could benefit older people who desire to keep their minds active. In addition to the direct educational benefit and enjoyment, taking on new learning challenges is believed to be one way of keeping mental faculties preserved.

Telecare and telemedicine. The increasing cost of medical care for a population which is growing older is an important concern. It is possible that providing remote access to a range of services could help to alleviate this problem, and could play a part in encouraging a self-help approach to keeping healthy.

Remaining economically active and productive. An economic concern about the ageing population is that a large number of retired people must be supported by a shrinking number of working taxpayers. One solution for this is to allow and encourage people to remain economically active beyond the usual retirement age. IT offers possibilities for older people to accomplish this more easily, through opening up new information-handling job opportunities and allowing people to work from home.

Other studies have explored the benefits of computer learning and usage for older adults in special circumstances (Findsen and Formosa, 2011). Nursing home residents who had computer training showed improved scores in the Activities of Daily Living scale, the geriatric depressions scale, and the Mini Mental State Exam (cognitive function). Older adults residing in assisted living facilities and independent living facilities who learned how to use Web-TV had positive attitudes toward ageing, increased levels of perceived social support, and reduced anxiety about technology. Disabled mature learners can meet their special needs when they use online shopping services and access health-related information by using

technology-devices such as a head-controlled keyboard-mouse and text-to-speech software reading documents aloud. To summarise, the key positive aspects of ICT learning include connectedness, satisfaction, utility, and positive learning experience. Benefits of ICT activities include e-mailing friends and family, gaming and other sources of entertainment, using search engines to find information related to personal interests, financial services, travel, health, and shopping online. Besides purchasing goods and services online, this group also used eBay to sell items online. Contact and communication with family and friends topped the list of positive aspects of using Internet. E-mail correspondence with family and friends to keep in touch, reconnect with, or make new friends gave these older adults a feeling of connectedness. Satisfaction with the availability and ease of retrieval of current information was another benefit mentioned by these seniors.

Of course, this is not the same as saying that mature learners do not face barriers to online usage. Possible barriers include spam, pop-ups, unwanted e-mail, advertisements, and pornographic material led many to seek out new Internet providers or learn methods to block such nuisances. Caution about providing personal information online and fear of identity theft kept them from using some of the services provided by the Internet. Fear of being a victim to online predators prevented them from participating in chat rooms. Misleading or erroneous information led these adults to question the trustworthiness of Internet sources of information. Others feared that the computer would be habit forming and might consume valuable time that would be better spent on face-to-face interactions. Lack of time to spend using the computer and the time it takes to use this technology are perceived barriers to its use. Some of these adults said their life and activities do not allow them time to spend using the computer. Others talked about their lack of patience with how much time computer activities took. Any course in ICT must, therefore, realise the importance of aiding middle-aged and older learners deal with unexpected barriers that may function to generate levels of frustration and insecurity about computer usage.

5. TEACHING ICT SKILLS TO MATURE LEARNERS

Considering that one of the most popular courses organised by local authorities is teaching computer skills to mature and older adults, educators have also provided extensive geragogical advice for facilitators running such courses. Typically, technology researchers, software developers, and ICT tutors are young, and therefore, they do not fully appreciate the needs of older users. This means that there is an urgent need to sensitise the teaching and mentoring of ICT skills to the world views, social experiences, and physical/cognitive limitations that characters the lives of middle-aged and mature learners.

If the potential for ICT technology to transform the lives of mature and older adults is to be realised, then ways must be found to make this technology appropriate, usable, and attractive to mature learners. It has been found that both mature and older learners are willing and able to use computers in various contexts, but they consistently have more difficulty than younger users. By far the biggest problem is lack of confidence. One of the first challenges in basic ICT courses concerns older persons' uneasiness as they take their seat in front of the computer, becoming afraid of doing the wrong thing or even damage the machine. Many, if not most, mature and older people encountering ICT for the first time believe that it will all be far too difficult for them to make sense of at their age. However, once confidence levels are built up, that rapid progress can be made. Given the learners' insecurity, facilitators should not take anything for granted and explain everything in detail, leaving nothing out, and most importantly, communicating in various ways that is 'never too old to learn. Each class will include mature and older adults with different, aptitudes, and learning preferences, so that the facilitator must be flexible with the programme, always reflecting the aspirations and motivations of the learners.

Two practical obstacles include the use of the mouse, and the interface between user and computer. Older and mature learners need time to master the mouse, especially for those with physical problems, and if needs be the facilitator must explain how the keyboard keys can serve as an alternative to the mouse. The interface between computer and use represents another problem because older learners tend to find it difficult to get used to the idea of a virtual desktop, finding this idea hard to assimilate and difficult to understand. One strategy which can be used to overcome this problem is for the facilitator to explain this phenomenon by using examples from the 'real world'. An effective facilitator has to demonstrate ability of listening at verbal as well as non-verbal levels, being capable of authoritative leadership, and a more practical level, designing attractive lecture notes and simplifying the issues at hand. At the same time, facilitators have to be sensitive to gender stereotypes and help older women overcome their belief that they are 'not good at technology', be attentive to women's needs as

regards self-assurance and self-consciousness with technology matters, as well as gender differences in learning.

Issues in ICT learning with mature and older participants

One feature of computer applications that mature and older learners often find difficult to master is the large number of details that must be remembered in order to accomplish tasks. Each detail is small in itself, but all must be learned in order to make use of the software. Once this is pointed out to them, and their confidence established, they can then use strategies to master the software, such as having reminder sheets by the keyboard or making good use of online help facilities. Another difficulty is knowing how to move confidently from switching the computer on to making use of the wanted application. Again, instilling confidence is an important factor here, as is a chance to confidently repeat the process of navigating from switching on, through the operating system procedures, to launching the desired application. A physical skill that most mature and older learners find very difficult at first is using the computer mouse. Many report that this problem alone has meant they have abandoned attempts to do classes in introductory computing, since they are embarrassed at their slowness in acquiring this minor but important physical skill. Tutors generally find that 1-2 hours of practice with the mouse usually solves this problem, but this must be done before any real applications involving using the mouse are attempted, or participant's confidence will suffer.

Peer support in learning is a well-established general principle, and it is particularly important for mature and older participants learning about computing. Being taught, coached, or supported by another mature/older person avoids the embarrassment the learner might feel with a younger person who knows all about the technology, and who the mature/older person might worry is becoming impatient with them. Also having an older person as a teacher provides a constant role model, and proof that the technology can in fact be mastered by someone who is no longer young. The problem of difficulty in coping with the large amount of detail which older users report when trying to learn ICT skills can be alleviated by providing regular sessions of training and support in an informal way, where mature/older learners are not embarrassed about asking for help repeatedly about the same thing. Due to age-related changes in cognitive and physical functions, mature and older learners are generally slower and tend to make more errors, whilst being less likely to have self-confidence in their computer-using abilities.

In order to allow mature and older learners to learn or use computers more easily, research has suggested the following advice:

- Specific supports for mature and older learners in the early stage of computer courses are important. When mature and older learners fail to overcome such initial barriers as controlling the mouse and understanding the jargon, they tend to give up their lessons

easily. Before the first class, it is best to administer a short attitude survey to identify those who risk of dropping out. Explaining the benefits of using computers also generates positive attitudes toward computers in the early stage of training.

- Mature and older learners-only classes tend to be most beneficial for older computer learners. Mature and older learners believe that they are inferior to young adult learners; therefore, they feel incompetent when they take courses with young adults. Seniors-only classes could encourage older adults to ask questions and feel comfortable.

- Using aid devices can be advantageous for mature and older learners. Providing writing materials for taking notes and laminated index cards containing basic computer skills are excellent ideas. Senior-friendly printed materials having easy-to-read font types (such as Helvetica and Arial), a large type size, and graphic illustrations seem to hold mature and older learners' attention. It is also recommended to use adjustable chairs to reduce pressure on the backs of mature and older learners, monitors with one touch buttons for adjusting the brightness and contrast, and a trackball rather than the mouse to reduce the amount of force for performing mouse tasks. Other studies have also suggested using Microsoft access features for mature and older adults such as increasing the size of the icons and font size of Web pages, using a magnifier window, and changing the cursor blink speed and width.

- Many studies recommend a variety of instructional methods especially designed for older computer users. It would be better for mature and older adults to have more time or self-paced practice to master learning content. A clear statement of learning objectives at the beginning of courses, well-defined learning units, and having sequential assignments containing scaffolding concepts are also appreciated by mature and older learners. Having smaller classes is also recommendable. It has been found that when educators gave mature and older learners task-specific feedback for achieving a set of performance goals for each training trial, they showed relatively better task proficiency and positive feelings of computer attitudes and efficacy. It also important that tutors' teaching style follows a step-by-step manner.

In 2003 and 2004, the Research and Learning Innovation Unit of Adult Multicultural Education Services, on behalf of the Department of Education, Science and Training in Australia, carried out a major project looking at mature/older learners and ICT literacy. This exercise produced ten key preferences of mature and older learners:

1. Mature and older learners are more likely to undertake short non-award vocational courses as their goal is to gain skills rather than qualifications.
2. Mature and older learners increasingly turn to community training providers for vocational and personal training.

3. Mature and older learners prefer learning in an informal learning environment, in small classes or groups
4. Mature and older learners need slower paced, low intensity training and often prefer self-paced learning.
5. Mature and older learners take increasing responsibility for their training and learning and for sourcing learning which meets their needs, constraints and learning-style preferences.
6. Mature and older learners are often independent learners - self-directed and with a clear idea of their own purpose for undertaking training.
7. Mature and older learners highly value peer support, mentoring and tutoring.
8. Mature and older learners value and respond to supportive and responsive teachers, tutors and volunteers.
9. Mature and older learners want clear and explicit instructions, with print and web-based resources designed to accommodate age-affected sight and hearing.
10. Mature and older learners generally feel more comfortable learning with a similar aged cohort.

One must admit that creating an informal environment is more difficult within the confines of a computer lab. One useful approach worth trying is that of playing background music as the students gather. In a one-day course it can even break the ice and mask the customary silence when people arrive. The tutor should admit if he or she makes a mistake, and also admit it if he or she does not know something but should promise to try and find out. There is evidence that whilst older and younger adults cope with the physical aspects of computer tasks in a similar way, it is the mental aspects of the task which have a more pronounced effect on the older learners. Moreover, as mature and older learners reduce their work speed to compensate for any encountered difficulties, tutors should be prepared to allow the learner to follow their own route in the class, at their own speed, as much as possible.

On a concluding note, desirable characteristics for the ideal ICT tutor for mature and older adults include a high level of ICT skill and confidence, extensive literacy teaching/training experience, a background in working with adult learners and an understanding of the principles of adult learning, and the ability to identify and understand the needs of the learners and to adapt sessions and courses to these needs. Moreover, it is important that tutors move from the proverbial 'sage on the stage' to the 'guide on the side'. Tutors of ICT working with mature and older adults must be ready to perform many roles and cannot simply rely on being an 'instructor' or an 'expert'.

A note on the gender divide

The gender digital divide is certainly a fact today for women mature learners. The strong male symbolic-cultural dimension of technologies and gender stereotypes has prevented most women of this age group, from ICT learning and practicing. Women who are senior today are those who have less taken advantage of better education opportunities and among them there is still a large part of population that have little or no formal education at all. Mature and older women - even if educated - face a long list of obstacles they have to overcome in order to avoid a final exclusion from all that pc and internet could allow them to do. If on one hand, the majority of Maltese mature women today are little or not at all educated, and probably used to none of lifelong learning habits, on the other hand it is as well true that there are many senior women that want to take the chance of being included in the ICT society. The principal factors that have caused the 'gender digital divide' of mature and older women, no matter the level of their education or social and economic conditions, are many and have been linked in their different life cycles, from their childhood to school life, from work to adult family life. These range from:

- socialization processes in the family and at school, according which little and young girls have been encouraged to take care of human relationships and social activities, to choose only certain education curricula, leaving the technological fields to males, with the consequence that they feel technology as an unfamiliar/extraneous element;

- important learning function performed by video games that allow/allowed boys and men to get an early and easy familiarity with computers. The subjects (fights, wars, sports/cars game), the language and structure (military jargon, a lot of movement and aggressiveness) they propose, do/did not attract women as it does to males;

- less chances that mature/older women have had to access home computer as the priority, both for the purchase and the use, was given to the males of the family as their work is valued more and, when at home, they usually have all their time at disposal;

- easy, bold and skilful men's attitude towards technology that reinforces women's idea that it is a men's field and that women are not good at it; and last but not least

- the fact that men have designed the system that is therefore expression of their culture and points of view.

As a consequence, the way mature and older women approach a leaning context is different when compared to their male peers. In brief, mature and older women:

- are more rigid, less flexible when facing technological problems because they do not have full control of the machine, the movements of which are obscure;

- need a trainer that guides them while men throw themselves into technology with an experimental active attitude; as women fear it, they need a mediated approach;

- have a reverent attitude towards technology and the computer, they experiment less as they are afraid of making mistakes, of breaking the computer: they are used to build, to create, not to destroy; men, since their childhood, are used to disassemble their toys, to fights that destroy them, to experiment and make mistakes;

- approach ICT in a systemic manner, through the trainer and the handbook; it is precise and methodical, aimed at getting instrumental results: they are not interested on how a computer works and how it is made but what they can do, what they can 'build' with it.

Indeed, mature women need great attention in the initial phase as they need support to overcome the obstacles that prevent them from expressing all their capabilities and potentialities. Consequently, e-Trainers of mature women trainers therefore have to be competent in:

- the gender stereotypes senior women have lived according which they are not 'good at' technology,

- the consequent women's problems and needs as regards self-assurance and self-consciousness with technology matter,

- the gender differences as regards the learning approach,

- the learning needs of a senior person, in general.

To sum up, in order to overcome the digital divide mature and senior women suffer, trainers have to be competent both in gender stereotypes and gender differences and the teaching methodologies for senior people.

6. *CURRICULUM PACK I*

OVERCOMING STEREOTYPES: THE TRUTH ABOUT MATURE LEARNING

TRAINING THE TRAINERS OF MATURE LEARNERS Session 1 OVERCOMING STEREOTYPES: THE TRUTH ABOUT MATURE LEARNING	
Time (130 minutes)	**Description**
0-15 (15 minutes)	**Ice-Breaker exercise** *The trainer asks participants to greet one another. Participants can choose one form of greeting - such as 'Hello', 'Good morning' or 'Pleased to meet you' ONCE - so that they have to come up with new forms of greetings.*
16-45 (30 minutes)	**True or False exercise** *Trainer distributes sheets of paper with the following statements and asks participants whether they think such statements are true or false and mark them accordingly. The participants are given 12 minutes to work the exercise. Each participant will then take turn in highlighting his/her views on each statement, with the trainer encouraging discussion.*
46-75 (30 minutes)	**Stereotypes on later life** *A discussion of myths and stereotypes commonly associated with later life.*
76-85 (10 minutes)	**Coffee/tea break**
86-105 (20 minutes)	**Intellectual ability** *A discussion of the myths and misconceptions associated with the intellectual abilities of older adults.*
106-120 (20 minutes)	**Myths in mature learning** *A discussion of the myths and misconceptions associated with mature and older learning.*
121-130 (10 minutes)	**Conclusion** *Tutor to recapitulate the key points and issues raised during the training session*

Preamble

With the growth in the older population, attitudes toward ageing and old age have also changed. When older people formed only a minor percentage of the population, beliefs and stereotypes about this group were obviously not widespread. But as the older population became more visible, the ageing process itself became defined as problematic and misconceptions grew. In fact, there are more stereotypes about the causes and outcomes of ageing and about the well-being of the older population than about any other period of life. These misconceptions are reinforced by messages on birthday cards, by books on 'how to avoid ageing', and by pills and creams to eliminate wrinkles and 'age spots'. The manufacturers of such products, which represent reactions of society against the outcomes of ageing, play on the general public's fears and lack of knowledge about ageing. The media also create an informational bias toward negative stereotyping of ageing by reporting on older adults in need and on the problems of ageing instead of its benefits.

It is important to understand the roots of stereotypes and negative values about ageing and later life if we are to change these beliefs to benefit both society and older people. The tremendous increase in the population over age 65 makes it imperative that we develop an accurate understanding about older people and about the impact of negative attitudes on intergenerational contacts and social policies affecting older people. Negative attitudes about ageing and about older people often evolve from anxieties about one's own ageing and from fears of becoming frail and dependent.

With the rapid growth in the population of people over age 80, and their increased needs for health and social services, there is also a growing concern among younger generations about competition for scarce financial resources between the oldest and youngest segments of society. These concerns may lead to heightened negative feelings toward older people in the future, and they have already resulted in a public 'backlash' against senior citizens who are mistakenly viewed as taking away services from younger generations and contributing to the federal deficit.

==========

0 - 15 (15 MINUTES) : ICE-BREAKER

Part 1. The trainer asks participants to greet one another. Participants can choose only one form of greeting - such as 'Hello', 'Good morning' or 'Pleased to meet you' ONCE - so that they have to come up with new forms of greetings.

Part 2 All participants are handed a sheet of paper with five questions on it: name, favourite colour, favourite holiday destination, whether he/she has any volunteering experience, and place of residence. Participants work in pairs and take turns asking each other these questions. Each individual records his/or her partners' answers and introduces each other in the plenary.

==========

16 - 45 (30 MINUTES): TRUE OR FALSE EXCERCISE

Trainer distributes sheets of paper with the following statements and asks participants whether they think such statements are true or false and mark them accordingly. The participants are given 12 minutes to work the exercise (adapted from Palmore, 1988). Each participant will then take turn in highlighting his/her views on each of the following statement, with trainers encouraging discussion:

1. ***Il-maġġoranza tax-xjuħ (minn 65 'il fuq) huma senili (għandhom memorja difettuża, jew huma diżorjentati jew dementi).***
   The majority of old people (age 65+) are senile (have defective memory, are disoriented or demented).

   False. Contrary to popular stereotype, dementia is not a normal part of ageing or inevitable. Statistics will vary depending on the study, but most estimate that approximately 4 per cent of older adults in their seventies experience some form of dementia, 5-10 per cent of older adults in their eighties, and 20-30 per cent of older adults in the nineties.

2. ***Il-ħames sensi (il-vista, is-smigħ, it-togħma, il-ħass, u x-xamm) kollha għandhom ħabta jmajnaw fix-xjuħija.***
   The five senses (sight, hearing, taste, touch, and smell) all tend to weaken in old age.

   True. For the most part, all five senses decline in old age for individuals. Some normal age declines are clearly documented (e.g. the changes that occur in the visual system with age). There are numerous changes that occur with vision that are highly correlated with age. However, the dramatic declines that are recorded to occur in the auditory system may be due more to the cumulative effects of noise than to age. Most individuals living in low-noise cultures (for example, nomadic cultures, simple agrarian cultures) do not exhibit a loss of hearing with age.

3. ***Il-maġġoranza tax-xjuħ ma għandhom l-ebda interess f'relazzjonijiet sesswali u lanqas ma għandhom kapaċità għalihom.***
   The majority of old people have no interest in, nor capacity for, sexual relations.

   False. Sexuality continues to be an important aspect of an older adult's life. People continue to be sexual beings and enjoy sexual relationships through late adulthood. For the minority of older adults who experience physical problems that may limit their sexual expression, treatments are available. It is also important to remember that sexuality is not just a biological function. Sexuality includes the expression of feelings and self in a variety of ways in an intimate relationship and encompasses many aspects of one's gender.

4. ***Il-kapaċità vitali tal-pulmun għandha ħabta tmajna fix-xjuħija.***
   Lung vital capacity tends to decline in old age.

   True. The power and strength of lung vital capacity, similar to the rest other muscle functions, tends to decline in later life. However, one must point out that in the majority of cases the extent of decline is small.

5. ***Il-maġġoranza tax-xjuħ il-biċċa l-kbira taż-żmien iħossuhom imdejqin.***
   The majority of old people feel miserable most of the time.

   False. The majority of older adults report high levels of life satisfaction. The more socially active individuals are, the higher their life satisfaction. Thus, the importance of remaining involved in informal, intimate activities. In addition, health is correlated with life satisfaction. Individuals, of any age, who are in poor health are likely to experience lower levels of life satisfaction. Not only will exercise and eating a healthy diet facilitate long life but also a good quality of life

6. ***Is-saħħa fiżika għandha ħabta tmajna fix-xjuħija.***
   Physical strength tends to decline in old age.

   True. Physical strength does tend to decline with age. Of course, exercise can counteract and limit the amount of loss. Thus, someone who is 65 and exercises regularly may be (probably will be) in better shape and have greater physical strength that a 40 year-old couch-potato.

7. ***Iktar minn xiħ minn kull għaxra qed jgħixu f'istituzzjonijiet fuq medda twila ta' żmien (bħalma huma nursing homes, sptarijiet mentali, djar tax-xjuħ, eċċ.).***
More than one tenth of the aged are living in long-stay institutions (such as nursing homes, mental hospitals, homes for the aged, etc.).

   False. Most older adults do not reside in a nursing home (more appropriately called a long-term care facility). In fact, only about 5 percent of older adults in Malta reside in a long-term care facility, some 30 percent for those 85 or older.

8. ***Sewwieqa xjuħ ikollhom anqas aċċidenti għal kull sewwieq minn dawk li għandhom inqas minn 65.***
Aged drivers have fewer accidents per driver than those under age 65.

   True. Drivers older than 65 have much fewer accidents than younger adults in the 18-29 age bracket. In fact, many companies give discounts to older drivers.

9. ***Ħaddiema aktar avvanzati fl-età fil-biċċa l-kbira ma jistgħux jaħdmu b'mod effettiv daqs ħaddiema iżgħar.***
Older workers usually cannot work as effectively as younger workers.

   False. Older workers are, in fact, more reliable than younger workers. They take a personal interest in their work and tend to put more hours and dedication than younger peers. Older workers are also less likely to call in 'sick'.

10. ***'Il fuq minn tliet kwarti tax-xjuħ huma f'saħħithom biżżejjed biex iwettqu l-attivitajiet ta' kuljum tagħhom mingħajr bżonn ta' għajnuna.***
Over three fourths of the aged are healthy enough to carry out their normal activities without help.

   True. The vast majority of older adults have no increased need to depend on others any more than they did at other points during their adult years. They might need more help if they decide to move the furniture or reading fine print in a dimly lit restaurant. One does not see great impairment except as a function of illness (someone has a stroke, and they will need care regardless of whether they are 30 or 80), injury, or very old age (as one moves closer to early their early nineties). Even those over 100 years of age may not need any significant assistance from friends or family. Not only are older adults not significantly more dependent than young adults, but they are also highly capable of engaging in professional activities, work, new career, volunteering, etc.

11. ***Il-maġġoranza tax-xjuħ mhumiex kapaċi jadattaw għall-bidla.***
The majority of old people are unable to adapt to change.

False. Older adults are no more rigid than younger adults. This tends to be a relatively stable personality characteristic. Thus, individuals who are rigid and have difficulty adapting to change in young adulthood will probably have these same difficulties when they become older.

12. ***Ix-xjuħ jieħdu aktar żmien biex jitgħallmu xi ħaġa ġdida.***
Old people usually take longer to learn something new.

True. This is largely due to cultural and generational differences between tutors and learners with respect to teaching and learning strategies. It does not mean that mature adults cannot learn anything new, but only that they take a bit longer, and may need different teaching approaches.

13. ***L-irtirar minn fuq il-post tax-xogħol huwa ħazin għas-saħħa.***
Retirement is detrimental to an individual's health.

False. Retirement does not kill people. For the vast majority of older adults, retirement is a positive experience. There is high retirement satisfaction particularly for those who planned for their retirement. Those who tend to die following retirement usually retired because they were not well in the first place.

14. ***Ix-xjuħ għandhom tendenza li jirreaġixxu aktar bil-mod miż-żgħażagħ.***
Older people tend to react slower than younger people.

Mostly true. In theory yes, but in practice no, as the results on which such a statement is based reports that older adults react slower only by milliseconds.

15. ***Inġenerali, ix-xjuħ għandhom ħabta li jkunu prattikament simili.***
In general, old people tend to be pretty much alike.

False. The older adult population is the most heterogeneous age group. Development consists of an interaction of the individual (with all of their genetic and biological make-up) and the context within which they live. The older an individual gets, the greater the impact of the context. In other words, your life experience serves to change you in unique ways; you experience different people and life events, you make choices, and you learn. As all of this is different for everyone, each of these life experiences serves to increase people's diversity across the life-span. The only time older adults will demonstrate homogeneity is in response to disease. One should remember however that an individual

suffering from Alzheimer's Disease at age 77 will share similarities with another individual suffering from Alzheimer's Disease who is only 34 years old.

16. ***Ix-xjuħija tista' tiġi mqabbla mat-tfulija.***
Old age can be often characterized as a second childhood.

False. The life span is undirectional. Older adults are adults and should be treated as such even if the elder is incapacitated by illness. Additionally, myth asserts the reversal of roles between parent and child. Thus, the adult child caring for the non-well parent may say they have taken on the role of the parent and the elder has become the child. However, caring for a non-well parent is not the equivalent to role reversal. In fact, true role reversal is viewed as dysfunctional.

17. ***Il-maġġoranza tax-xjuħ huma soċjalmenti iżolati.***
The majority of old people are socially isolated.

False. Loneliness is one of the greatest fears that people associate with old age. Yet, over two-thirds of older adults report being rarely or if ever lonely. This parallels the degree of loneliness experienced by young and middle adults. Often, this fear of loneliness is based on the thought of losing a spouse and subsequent isolation. This fear is not based on reality for most individuals. The majority of men remarry after the loss of a spouse. Women, however, are more likely to become involved in new social relationships and friendships with other widows. Research has also demonstrated that urban living is associated with higher levels of loneliness. Individuals within small-towns report lower levels of loneliness.

18. ***L-uġigħ huwa naturali fix-xjuħija.***
Pain is a natural part of the ageing process.

False. Pain is not a natural part of the ageing process. Rather it is a sign of injury or illness. As such, pain should not be ignored. Unfortunately, too often people will attribute pain to ageing and wait too long to seek medical help with negative outcomes. A man goes to the doctor complaining of pain in his right knee. The doctor says to him "You have to expect this. You are getting older". To which the man replies, "My other knee is just as old and it doesn't hurt." It is true that some individuals will experience more pain as they age but this in the result of the accumulation of injury or illnesses. Thus, the pain is again due to injury/illness and not age.

19. ***Ix-xjuħ qed jisfaw abbandunati mit-tfal tagħhom.***
Most older adults are rejected by their children.

False. Older adults are not rejected by their children simply as a function of their age. You will hear people say something like: "Mrs. Borg is 75 years old, living in a nursing home, and her children never visit. They have just tossed her away because she's old". Chances are Mrs. Borg and her children have other family issues that preclude close contact (e.g. they don't like each other; there is a history of familial abuse). Close families do not fall apart simply because the parent has aged.

20. ***Il-maġġoranza tax-xjuħ għandhom introjtu li huwa inqas mil-livell tal-faqar.***
The majority of old people have incomes below the poverty line.

False. The majority of older adults have incomes above the poverty level. In Malta, 80 per cent of older persons have incomes above the poverty line.

21. ***Ix-xjuħ huma ġeneralment inkwetati fuq il-mewt.***
Most older adults tend to be preoccupied with death.

False. Death is an inevitable factor of life. Attitudes towards death are highly variable but some general trends can be noted. In general, older adults are less anxious and more matter-of-fact about death. As one moves through the life-span, they lose friends and family members, and begin to accept their own mortality. This enables the older adult to speak more freely about death and dying.

22. ***Ix-xjuħ għandhom tendenza li jsiru aktar reliġjużi iktar ma jixjieħu.***
Old people tend to become more religious as they age.

False. Level of religiousity tends to remain fairly stable across the life-span. Older adults do tend to be more religious than younger adults. However, as a cohort they have always been more religious reflecting the time and culture in which they were raised.

23. ***Il-maġġoranza tax-xjuħ rari jkunu irritati jew rrabjati.***
The majority of old people are seldom irritated or angry.

True. Older adults are no more angry or irritated that younger adults. Individuals who are angry or irritated a good portion of the time while younger will probably be individuals who are angry or irritated a good portion of the time in old age.

==========

46 - 75 (30 MINUTES): STEREOTYPES ON LATER LIFE

Slide Illness

Perhaps the most common myth about old people is that most are sick or disabled. Many think that poor health is a 'very serious problem' for most people over 65 and that older people spend much time in bed because of illness, have poor coordination, and feel tired most of the time. Many also believe that many older people are in nursing homes.

Facts. More or less, only 5 per cent of those 65 and over are in nursing homes. Even among those age 75 or over, only 9 per cent are residents of institutions. However, about 40 per cent of older adults spend time in a nursing home at some point in their lives. They also have fewer injuries in the home, and fewer accidents on the highway than younger persons. Physical strength does tend to decline in old age. Physiological, biochemical, and anatomic measurements of muscle all exhibit decreased levels with age from about the third decade. About one third of the muscle mass is usually lost by age 80. All five of the senses decline in old age. Most studies of taste and smell show that taste and odour sensitivity decrease with age, although some of these decreases may be the result of other factors, such as disease, drugs and smoking. Nearly all studies of touch, hearing and vision agree that these senses decline in later life.

Slide Impotency

Another common stereotype is that most elders no longer engage in any sexual activity or even have sexual desire - and that those few who do are abnormal.

Facts. The majority of persons past 65 continue to have both interest in and capacity for sexual relations. Major longitudinal studies have found that sex continues to play an important role in the lives of the majority of men and women throughout their seventies. Most older people report that sex after 60 is as satisfying or more satisfying than when they were younger.

Slide Ugliness

Another stereotype is that old people are ugly. Beauty is associated with youth, and many people, especially women, fear the loss of their beauty as they age. The following terms reflect this stereotype of ugliness: crone, fossil, goat, witch, withered, and wrinkled.

Facts. While our culture tends to associate old age with ugliness and youth with beauty, some other cultures tend to admire the characteristics of old age. For example in Japan, silver hair and wrinkles are often admired as signs of wisdom, maturity, and long years of service. There

is nothing inherently ugly or repelling about the characteristics of old age. Ugliness is a subjective value judgment, or in other words, 'ugliness is in the eye of the beholder'. Most people's judgments about beauty conform to cultural standards of beauty and ugliness in their particular society.

Slide Mental Decline

Another common stereotype is that mental abilities begin to decline from middle age onward, especially the abilities to learn and remember, and that cognitive impairment (that is, memory loss, disorientation, or confusion) is an inevitable part of the ageing process.

Facts. The majority of people aged 65 or over do not have defective memories, nor are they disoriented or demented. The majority of older adults are without mental impairment. Most studies of short-term memory agree that there is little or no decline in everyday short-term memory among normally ageing adults. As for long-term memory, various community surveys have found that only about 10 per cent of older people cannot remember such things as the names of past presidents, their correct age, birth date, telephone number, mother's maiden name, or address. Thus, it is clear that while there may be some decrease in long-term memory, the majority do not have serious memory defects. In summary, significant learning and memory problems are due to illness, not to age itself.

Slide Mental Illness

Another common stereotype is that mental illness is common, inevitable, and untreatable among most aged. Both elders themselves and many health professionals think that most mental illness in old age is untreatable. This partially explains why few mental health professionals choose to specialize in geriatric mental health.

Facts. Mental illness is neither common, inevitable, nor untreatable in the elderly population. Only about some 2 per cent of persons 65 and over are institutionalized with a primary diagnosis of psychiatric illness. Most community studies of psychopathology among older adults agree that less than 10 per cent have significant or severe mental illness, and that another 10 to 32 per cent have mild to moderate mental impairment. But the majority of older people are without impairment. In fact, according to the most comprehensive and careful community surveys, the incidence of mental illness among older adults is less than that of younger persons.

Slide Uselessness

Because of the beliefs that the majority of older adults are disabled by physical or mental illness, many people conclude that elders are unable to continue working and that those few

who do continue to work are unproductive. This belief is the main basis for compulsory retirement policies and discrimination in hiring, retraining, and promotion.

Facts. The majority of older workers can work as effectively as younger workers. Despite declines in perception and reaction speed under laboratory conditions among the general aged population, studies of employed older persons under actual working conditions generally show that they perform as well as, if not better than, younger workers on most measures. However, when speed and accuracy of movement are important to the job, some studies indicate decline in productivity with age. On the positive side consistency of output tends to increase with age, and older workers have less job turnover, fewer accidents, and less absenteeism than younger workers. Intellectual performance, on which much of work performance today depends, does not decline substantially until the 70s in most individuals and even later in others.

Slide Isolation

Many people believe that older adults are socially isolated and lonely.

Facts. The majority of older adults are not socially isolated. About two-thirds live with their spouse or family. Only about 4 per cent of elders are extremely isolated, and most of these have had lifelong histories of withdrawal. Most elders have close relatives within easy visiting distance, and contacts between them are relatively frequent. Most studies agree that there tends to be a decline in social activity with age, but the total number of persons in the social network remains steady. The types of persons in the social network tend to shift from older to younger persons, and from friends and neighbours to children and other relatives.

Slide Poverty

Views about the economic status of elders range from those who think most elders are poor, to those who think the majority are rich. At present those thinking older adults are poor tend to outnumber those thinking elders are rich.

Facts. The majority of older adults have incomes well above the federal poverty level. In 2010, only 20 per cent of persons over 65 had incomes below the official poverty level (about 60 per cent of the median income). Rather, incoming retirees will be the most affluent cohort in history due to the healthy levels of state pensions and the strength of the welfare state.

Slide Depression

Since many believe that the typical older person is sick, impotent, senile, useless, lonely, and in poverty, they naturally conclude that the typical older person must also be depressed.

Facts. Major depression is more prevalent among young people than old people. However, of the mental illnesses, depression is one of the most common among the elderly. This, along with the fact that the rate of elderly suicide is the highest of all age groups, makes depression a significant issue for this population. Studies of happiness, morale, and life satisfaction find no significant difference by age group or find about one fifth to one third of older adults score 'low' on various happiness or morale scales. Surveys find that only one fourth of persons age 65 or over reporting that 'This is the dreariest time of my life', whereas about half said 'I am just as happy as when I was younger', and one third even said, 'These are the best years of my life'.

Slide Political Power

Another stereotype is that older adults are a 'potent, self-interested political force'. The assumption is that the political power of the elderly hamstrings our politicians from undertaking needed reforms.

Facts. Older people vote in very healthy numbers in elections. Moreover, older adults usually do not vote as a block, and consequently, vote for a variety of political parties.

==========

76 - 85 (10 minutes): Coffee/Tea break

==========

86 - 105 (20 MINUTES): INTELLECTUAL ABILITY

Intellectual ability does not decline with ageing, it only changes. The capacity to perceive relationships or think in abstract term changes in such a way that the older adult needs more time to think through and absorb new information. Evidence suggests that a great deal of age-related deficits in performance can be attributed to *interference effects*. This means that people do not learn well or retain information because of confusing similarities or discrepancies between previously learned and new material.

Slide Mature learners have less brain capacity

The evidence. The brain is an extremely complex organ, and investigation of structural changes is necessarily very difficult especially as, before the introduction of modern imaging techniques, most studies could only be carried out post mortem. However, it appears that the

brain undergoes a range of structural and chemical changes in the course of normal ageing even though brain scans reveal considerable variation in these age-related changes. Most researchers seem to agree that the brain may shrink and decrease in weight by around 10-15 per cent as it loses millions of neurons in the course of normal ageing, but studies have to allow for the fact that brain weight and volume are related to body size. Cell loss varies in different parts of the brain, with some parts remaining relatively unaffected. It is also believed that in spite of the loss of a very large number of neurons, sufficient remain to enable information to continue to be stored with no real loss of efficiency, especially in the cerebral cortex. More recent evidence suggests that surviving neurons may produce new 'branches' to form new connections with other surviving neurons to compensate for the loss of others at least until very old age. Other, even more recent, research has suggested that there is actually no loss of brain cells but rather that the brain's functions may get 'rusty' with disuse. Even combined with the effect of various complex chemical changes, age-related changes in brain structure do not appear to have a significant impact on intellectual abilities in the absence of other more complex and abnormal changes in brain tissue associated with a range of dementias, notably Alzheimer's Disease. Researchers are unsure as to whether people can take proactive steps to guard against neurological illness in later life, but it has been proposed that lifelong mental stimulation – active learning – may actually offer a kind of immunity to neurodegeneration. The presence of growing numbers of older people leading happy, independent lives in the community is ample proof that physiological deterioration of the brain and loss of capacity is certainly not inevitable.

Implications for practice. Even though there is evidence that the brain may shrink with increasing age, the presumption that people's brains somehow wither away as they grow older is unwarranted. Moreover it should not be assumed that degenerative diseases such as the dementias that arise from organic brain diseases are the inevitable consequences of growing older. Older people are able to use their brains and retain the capacity for skill development and for productive activity in much the same way as younger people. Indeed, lifelong learning may well be proved to offer a protection against chronic brain disease in older age. There is some evidence, for example, that engaging in activities that keep the brain active such as chess, word-games and crosswords has beneficial results in the same way that exercising a muscle or joint helps to keep them more mobile. Older people are our most untapped human resource, possessing a range of experience, skills and talents that do not necessarily lessen with age. The belief that older people are unproductive has had a generally negative impact on our society. For example, ageism in the workplace has led to the experience and skills of many older workers being unrecognised. However their skills can be used for the benefits of both their peers (as the University of the Third Age shows) and younger people. Older people can be invaluable teachers and mentors for members of younger generations and some inter-generational learning schemes have been very successful in enabling a cross fertilisation of experience and skills across different age cohorts. A man in his 90s who is still working as a supply teacher was recently profiled in the media, with

colleagues and children alike testifying to his skills and the range of valuable experience he brings to the job.

Slide Mature learners' brain capacity has diminished

The evidence. The assumption that older people cannot learn new things is related to unrealistic perceptions of them as having less brainpower than younger learners and/or being incapacitated through age-related physical and mental decline. Human intelligence – defined here as the quality of an individual's mental abilities – is a complex phenomenon that has been subject to a great deal of debate. One area of investigation is in relation to the possible effects of age on adult intelligence. Current psychological thinking suggests that 'fluid' intelligence (the ability to carry out higher level cognitive functions such as the integration, analysis and synthesis of new information) declines appreciably from the mid sixties onwards, although not all older people show this decline to the same extent. Some researchers believe that any decline in fluid abilities is largely due to disuse. In contrast, 'crystallised' intelligence (acquisition of specific skills and information usually acquired through education and training, the ability to make judgements and use problem-solving strategies) continues to grow throughout adulthood, at least until very old age, as an individual builds up experience of the world. However, some researchers consider that the size of the apparent difference between levels of fluid and crystallised intelligences may be no more than an outcome of the experimental and analytical methods used to assess them. In any case, people appear to age cognitively at different rates; their abilities are also affected by factors such as nutrition, health and environmental stimulation as well as the availability of opportunities for education and learning. Other researchers regard intelligence as 'plastic' or malleable in that it can be modified. There is some evidence here to suggest that, as people grow older, the 'plasticity' of intelligence means that they may explore a whole range of new activities as 'compensation' if they feel that their mental abilities in one area are declining in some way. This is particularly relevant if, for example, they feel that they are slowing down in their ability to react to different situations requiring speed of behavioural response or spatial abilities – driving a car is an example, although this would also be affected by any age-related sensory deficits.

Implications for practice. What this means for practitioners is that we should reconsider the stress we put on looking backwards in work with older adults, and try and create a more forward-looking learning experience. Although no two minds are alike, it appears that a vital component of 'brain health', apart from diet and exercise, is to ensure that the mind is continually challenged through exposure to a range of new learning opportunities. All older people can benefit from learning that enables them to 'stretch' themselves; to solve increasingly unfamiliar problems or to grasp new concepts as a means of maintaining fluid intelligence. We should not assume that some areas should be confined to younger learners, for example learning new skills such as using computers, which many older people have already taken up with enthusiasm. The most successful teaching strategies are generally

considered to be those that acknowledge older people as having unlimited learning potential in spite of any age-related deficits. Teachers of older adults need to be positive and supportive and always to be looking for ways to help them compensate for any cognitive changes through the promotion of learning confidence and self-respect. In some cases, older learners may need assistance with the development of memory techniques, opportunities to practise skills or to organise material in a meaningful way as well as being helped to see how it might be applied in practice. As far as possible, older learners should be encouraged to relate new knowledge and skills to their own life experiences through the use of carefully selected teaching materials. By sharing some of the evidence in this book, and dispelling some of the myths, practitioners can also help to encourage older learners to develop a positive view of learning in later life.

Slide Mature learners are too slow to learn anything new

The evidence. Closely related to assumptions about diminishing intelligence is the common perception that as we age we slow down in some way and cannot react to situations with the same speed as younger people. Hence the notion that older people must be too slow to learn new skills or to absorb and make use of new knowledge. Speed of behaviour or reaction time is generally seen as related to the time taken to perform a task that involves different facets of the central nervous system – attention, perception, reasoning and memory. However, it is not clear from experimental evidence whether a person's reaction time is something general that affects performance in all daily activities, including learning, or whether it varies according to specific domains, tasks or processes. Some research emphasises the importance of taking overall health status into account when considering older people's speed of reaction. There is also a range of illnesses that are thought to affect the efficiency of the central nervous system, for example diseases like chronic bronchitis are known to affect the flow of oxygen to the bloodstream and hence the efficiency of the brain. Diabetes may also affect overall cognitive efficiency, and some psychologists believe that subjective reactions to chronic illnesses such as feelings of stress, anxiety and depression may also have an effect on reaction times and on general cognitive performance. As with other aspects of ageing, not everyone is susceptible to slowing down in the same ways, and it is important to stress that any apparent signs of slowness in learning may be related to *what* is being learned and *the ways in which* the learning is offered. There is evidence that some older learners may experience problems in pacing themselves and in organising their work especially if studying complex and unfamiliar academic material that requires a high degree of self-direction in learning. Other evidence shows that many older learners are aware of an inability to concentrate for lengthy periods on new material and tend to rely on trusted individual learning styles that may not always be appropriate to the situation. On the other hand, others devise their own systems for carrying out new learning tasks, for example, ways of ordering new material in order to make sense of it, putting extra effort into the learning process and becoming more expert at transferring learning acquired in one situation to another.

Implications for practice. The speed at which older people are able to learn new things depends on a complex array of factors that need to be taken into account when designing and delivering learning opportunities. While some functions such as speed of reaction may decline with age, it is possible to recover some levels of functioning that may have deteriorated. For example, remaining active and undertaking even moderate exercise is now widely acknowledged to have beneficial effects on older people and may enable them to be quicker, stronger and more mentally alert than another person of the same age who leads a sedentary life – or even an inactive younger person. Thus individual factors such as health and state of mental alertness together with personality factors such as an individual's degree of willingness to persevere with a new learning task are obviously important when designing programmes for older people. However, a tutor is unlikely to have an in-depth knowledge of every learner's background, state of health and personality. A more useful approach would be to concentrate on the characteristics of the learning task and the way it is to be carried out and to consider the level of complexity involved, together with the social and physical environment in which learning is taking place. As an example, teaching complete beginners to use a computer involves a whole range of novel instructions and tasks which are likely to be completely alien to the learners already sitting in an unfamiliar position in front of a screen. If some older learners cannot react as fast as younger people, particular patience and willingness to allow for practice will be required.

Slide Mature learners forget things

The evidence. Memory refers to the acquisition, storage and retrieval of information, and is usually studied in terms of its components. At least eleven types of memory have been identified, not all of which decline with age. Therefore it is wrong to assume that *all* older people are forgetful. It does appear to be the case that ageing has significant effects on *short-term* or immediate memory (also called working memory), which refers to a system that keeps information temporarily available while the individual is involved in other tasks. There are also effects on some aspects of *long-term* memory: *episodic memory*, the memory for events or lists of words; *flashbulb memory*, the details of a distinctive historical event; *source memory*, whether information was spoken or read; *tip-of-the-tongue phenomenon*, the ability to recall a well-known word or name; and *remote memory*, the ability to recall information from the distant past. Any impairment of these memory areas may be annoying to the individual but it is not indicative of an inability to learn in the absence or impairment of other more complex cognitive processes. By contrast, there are thought to be no or only very small age-related effects on other aspects of long-term memory, for example: *procedural memory*, non-verbal recall of how to perform certain activities such as riding a bicycle, and *implicit memory* – the recall of information that was acquired unintentionally. There are generally no losses in *semantic memory* – recall of general knowledge or factual information (although older people may lose confidence in their abilities in this sphere) nor in *autobiographical memory* – past events which have particular personal significance, nor in *prospective memory* – remembering

to do something in the future such as visiting a friend's house. However, some older people may not be adept at time-based prospective memory tasks such as remembering the time of an appointment.

Implications for practice. It is important to remember that memory skills can be improved at any age, and techniques for doing this can be incorporated into learning programmes. Tutors can also vary the speed at which information is given to learners, to allow time for new knowledge to be absorbed and assimilated and to check back on learners' understanding. Time-limited tests or exams are not usually an appropriate assessment technique for older learners (although some enjoy the challenge). Older people's ability to recall long-past events can be used as a significant teaching resource that can bring to life otherwise abstract narratives. The tutor of a history class recently found that one of his elderly students had actually experienced the aftermath of the Russian Revolution and was able to speak in enthralling detail of what life was like for people in Russia at the time. Children can also be interested in hearing first-hand accounts of the past and some schools have brought in older adults to relate their experiences and enliven local history sessions.

==========

106-120 (20 MINUTES): MYTHS IN MATURE LEARNING

SLIDE Older persons are not interested in learning

The evidence. International surveys of adult participation in formally organised learning conducted over a number of years have consistently shown that older people are much less likely to take up learning opportunities than those in younger age-groups. A number of barriers and deterrents have been identified to account for this, including low levels of initial education and alienation from learning because of early school experiences, both of which are often cited as the major reasons, together with lack of confidence in the ability to learn formally in later life. Older adults also experience a number of practical barriers, such as distance to learning opportunities, lack of transport and unwillingness to go out at night. Some cannot go far for health reasons. The costs of provision also present an obstacle to many older people many of whom, especially older women with paltry pensions, have the lowest income of any adult group.

Low participation is also the result of an inadequate supply of appropriate learning opportunities over the last decade. The absence of large numbers of older people from adult education courses does not necessarily mean that they are not interested in learning. There is evidence that older people, like learners of any age, move in and out of formally organised learning activities according to their personal circumstances and needs. Not all older people

necessarily disliked school or had bad experiences; for some, enjoyment of learning was fostered in primary school or encouraged by a particular teacher and has been retained throughout life. The freedom offered by retirement enables these and other individuals who have come to enjoy learning in adulthood, to take up a forgotten interest, to embark on a new learning experience and to acquire new knowledge and/or skills.

Some argue that everyone continues to learn throughout life in the sense of absorbing new information and continually adapting to life's changing demands. A recent research report found that older people interpreted 'learning' in a variety of ways. Those interviewed who had been designated as 'non-learners' by the researchers did not see themselves in this way - they considered learning to be a central and integral part of their daily lives rather than something that only happens in specific circumstances. Older people are not homogenous in their aims and in the choices they make about learning and, like other adults, they inevitably have a range of different learning needs. Depending on what they want to learn and how they prefer to learn it, they are prepared to undertake learning in a variety of different modes at different times according to their situation and what is available, affordable and accessible. Personality and background play a part here in that some people, regardless of age, would never consider attending a class or course even though they may be happily learning in other ways. While some choose to attend classes or courses, others learn through self-help groups and self-directed learning, through going to libraries, museums and community centres; through distance learning, using computers and through volunteering and travel. Television and radio programmes are particularly popular sources of learning, especially for those older people who still have caring responsibilities or feel they are too infirm to go out regularly.

Implications for practice. We must not make assumptions about what older adults want to learn or how they want to learn it. Older people interpret learning in a variety of ways and many enjoy attending a wide range of programmes. We should not assume none of them want intellectually challenging and assessed programmes – some relish the challenge of becoming a student in later life and working towards qualifications. Many others prefer recreational activities and activity-based programmes. A recent consultation held with learners and providers on a London borough's learning plan revealed that older people felt that there were not enough suitable courses on offer for them. They wanted more recreational courses involving activities of some kind: 'I don't go to a club to sit down, I can do that at home'. Older learners' diverse needs, interests and abilities should be paramount in devising teaching approaches. It may be appropriate to make use of small group discussion to analyse individual and group needs. Learners can also be encouraged to become more self-directed through developing learning approaches that enable them to become less dependent on a teacher. An approach that enables learners to have more control over the whole learning process, including instructional methods, may lead to improved learning and the development of learner self-confidence. Many older individuals are willing to spend time learning if they have a degree of control over the process, particularly over when and how

much time is spent on learning, together with some sense of how quickly they can put any newly acquired skills and knowledge into practice.

Teaching methods may need to appeal to different senses, especially if some of the learners have sight and/or hearing difficulties. The amount of time spent on different learning tasks needs to be carefully planned. Whilst personalising teaching to accommodate everyone's individual learning style within a group or class is not practical, it is important to use a range of teaching strategies. There is evidence that many like being taught in loosely structured groups, in workshop settings or through self-teaching. Older learners can also be encouraged to try new and unfamiliar modes of learning, such as using the Internet, with appropriate support. Informal ways of learning are also important to many older people, especially as their circumstances change, and this should enable providers to explore new possibilities such as following up popular TV and radio programmes or supporting self-directed learning interests. Whatever the mode or focus of learning activities, their location, like their timing, is of crucial importance. The use of locally based learning venues is very important for older people as many do not wish to learn in a formal learning environment such as a school, college or university, particularly during unsocial hours.

SLIDE Mature learners are not interested in learning anything new

The evidence. The belief that older people prefer to live in the past, coupled with misconceptions about their ability to learn because of age-related sensory and physiological changes, can lead to the assumption that they are not interested in learning new things. This can be reinforced by the fact that older people tend to interpret 'learning' in a range of different ways and sometimes do not recognise or acknowledge that a new activity in which they are engaged amounts to the acquisition and use of new knowledge or skills. There is, however, considerable evidence from surveys carried our in recent years that many older people wish to learn new things in order to maintain an active brain; to follow up something in which they have always had an interest; to develop new interests now that they have more time, or simply to enjoy the challenge of learning something new.

Some individuals gain satisfaction from undertaking voluntary or civic activities in which training for a specific new role may be undertaken. This may take the form of group instruction, shadowing, on-the-job learning or self-directed learning. Less active older people sometimes pursue learning through the development of a range of new hobbies, which, in some cases, may lead to new interests or the desire to gain a qualification. In surveys, older people frequently comment on the fact that retirement offers them more time to pursue these interests. It is also well documented that various triggers, such as grandchildren being at school or other family members entering higher education, sometimes motivate older people to explore new interests. The changes in financial circumstances that retirement often brings also means that they may wish to develop new do-it-yourself skills. An example is the need

to keep house maintenance under control and save on expenditure. In some cases, the initial impetus may come from a move to a new area or through bereavement and a subsequent desire to meet new people and gradually build a new life. What is sometimes seen as a negative experience then often appears to have positive outcomes in that the enthusiasm and self-confidence to explore new learning possibilities may emerge in time as the older person builds up new social contacts. Being taken along to a course or class by a neighbour or friend appears to be a particularly important factor in these circumstances. At one London consultation on the local learning plan the suggestion was made that older learners should be encouraged to learn together with friends or relatives or through having more schemes where for example grandparents and grandchildren learn together.

Implications for practice. Since many older people enjoy the challenge of trying something new they can be encouraged to explore what opportunities might be available to them either locally or nationally, perhaps through distance learning or through organisations which actively encourage older people to commit themselves to new learning challenges.

SLIDE **Mature learners are not interested in information and communications technology**

The evidence. Some believe that older people are not interested in information and communications technology (ICT). This may arise from misperceptions of their problem-solving abilities and information-processing, attention and memory skills in an increasingly technology-driven world in which tasks often involve following unfamiliar and complex instructions as well as understanding software which is not always user-friendly. It is also sometimes assumed that older people no longer have the dexterity to manage a cursor through use of a mouse.

In the United Kingdom, the 2002 National Adult Learning Survey found that only 31 per cent of interviewees aged 60-69 and 12 per cent of over-70s had used ICT at some point in their lives, compared with between 74 per cent and 81 per cent of under-50s. However, this does not mean that older people have no interest in IT. Rather, it reflects the fact that, in common with other low-income groups, many of them cannot afford the purchase of state-of-the-art computers and modems, let alone bear the cost of phone bills, broadband connections and monthly charges for Internet use. Whilst increasing accessibility to computers are beginning to offset this, it is not yet clear what factors would motivate an older person to take on the challenge of engaging with IT in these ways. Fear of failure in learning how to use a computer is thought to hold many older people back. However, it has been shown that older people tend to enrol for computer classes in larger numbers than other age-groups, and the success of the computer-training organisation Hairnet, which specialises in working with people over 50, suggest that many more people are interested in becoming 'silver surfers' than is immediately apparent.

There is increasing evidence that almost all those who 'give it a go' find that IT and use of the internet in particular, has a positive impact on their lives. A recent survey found that whilst men aged 55 plus are more likely to use the internet for pursuing hobbies and finding information, women in this age-group use it more as an alternative to the telephone for exchange of information and chatting with friends both here and abroad, as well as keeping up with the activities of members of their family. Some older people also use IT for managing their finances. Older IT enthusiasts are those most likely to own a mobile phone and to use text messaging as a method of communication.

Implications for practice. In spite of visible enthusiasm for learning about, and using IT among some older people, there is still considerable work to be done in providing affordable access for everyone and for ensuring that older purchasers of computers are well informed about the most appropriate hardware and software for their personal situations, as well as the costs of being on-line and of maintenance and upgrading. Another priority is the development of training materials that are user friendly and take into account possible age-related impairments such as loss of visual acuity, mobility problems and stiffness, especially in the fingers, as well as allowing learners to work at their own pace but with sympathetic and timely support. Guidelines in community languages are also important to ensure that ethnic minority elders are not excluded.

SLIDE Mature learners only want to learn with older people

The evidence. Older learners can be found across the range of post-16 provision, and many prefer to learn in the company of people of all ages. Some enjoy taking part in a whole range of different learning activities so that in the course of a typical week, they may attend mixed-age courses and activities specifically targeted at older people, as well as engage in informal learning with friends and relatives or through the media. There are some situations where older people prefer to learn in the company of other older people. A major example is the University of the Third Age (U3A), where participants share their experience by becoming teachers, group convenors or committee members as well as learners. Many older people prefer this kind of purposeful learning that both acknowledges and builds upon their experience and offers them the opportunity to try out teaching or leadership roles in the company of their peers. Learning in the company of other like-minded older people can be particularly beneficial to individuals, especially older women, who may lack confidence in their abilities especially if they are returning to learning after a long break; or for those (of either sex) who feel isolated and lonely perhaps following bereavement. Older people are obviously more likely to be found learning with their peers when there are specific activities targeted at them such as an exercise class; a discussion group examining ways of maintaining healthy lifestyles in retirement, or activities that aim to develop confidence and skills by giving them a voice in local community affairs or offering them the chance to take part in the

planning and organisation of a cultural exchange with counterparts in a different country. However, evidence shows that up to 25 per cent of those in 'mainstream' adult and community learning provision are over the age of 60, showing that studying with other age-groups is not an issue for many older adults.

Implications for practice. Whilst there are instances where learning with other older people may be appropriate or be preferred by older learners themselves, it should not be assumed that this is automatically the case. Older people have been shown to benefit from learning alongside younger people in a range of circumstances including degree level study and adult education classes in a range of subjects, as volunteers, and through offering their experience to other generations, whether through reminiscence or as mentors or researchers. Developing programmes solely for older people has proved useful in attracting those not normally engaged in education activities.

==========

121-130 (10 MINUTES): CONCLUSION

Tutor to recapitulate the key points and issues raised during the training session.

==========

7. *CURRICULUM PACK II*

SUPPORTING MATURE LEARNERS: WHAT EVERY TRAINER NEEDS TO KNOW

TRAINING THE TRAINERS OF MATURE LEARNERS Session 2 SUPPORTING MATURE LEARNERS: WHAT EVERY TRAINER NEEDS TO KNOW	
Time (130 minutes)	**Description**
0-15 (15 minutes)	**Ice-Breaker exercise** *In pairs, small groups or within the whole group, the tutor is to ask the participants to write down what their expectations are of the two day workshop. In pairs or small groups, allow some time to discuss responses.*
16-35 (20 minutes)	**From pedagogy to andragogy** *Tutor explains how learning is a lifelong activity and mature learners are not so distinctive to merit a special methodology of learning. Yet, it remains mature learners inhabit a physical, psychic, and social realm that is - to some extent - different from that experienced by younger and middle aged adults.*
36-55 (20 minutes)	**Age-related changes** *A discussion of myths and stereotypes commonly associated with later life.*
56-65 (10 minutes)	**Coffee/tea break**
66-80 (15 minutes)	**Barriers to learning** *A discussion of the barriers and difficulties that mature and older learners face in contract to younger peers.*
81-100 (20 minutes)	**Principles of mature learning** *The tutor presents the key principles of mature and older learning in comparison to younger learning patterns*
101-120 (20 minutes)	**The learning environment** *The tutor discusses issues relating to the motivation and class-room environment that function to increase the participation of mature and older persons in ICT learning*
121-130 (10 minutes)	**Conclusion** *Tutor to recapitulate the key points and issues raised during the training session*

Preamble

Learning is a lifelong activity and older adults are not so distinctive to merit a special methodology of learning. Yet, it remains that older adults inhabit a physical, psychic, and social realm that is to some extent different from that experienced by middle aged adults. The term 'geragogy' achieved prominence in the United States and Britain after appearing in Lebel's (1978) article in *Lifelong learning: The adult years* which argued that older adults were sufficiently different to warrant a separate educational theory. Some years later, Yeo (1982) advanced the term 'eldergogy' without, unfortunately, developing any educational theory. Further attempts expanding the notion of geragogy emerged in John's *Teaching and loving the elderly* (1983) and *Geragogy: A theory for teaching the elderly* (1988 : 13) which argued that "geragogy deals with unique instructional considerations that related to teaching the elderly". John's approach, however, is distinctly a 'top-bottom' one where teachers who are responsible to meet older adults' need for stimulation. Teachers, for instance, are expected to assign homework that - amongst other tasks - requested learners to measure pens and pill bottles, and name body parts. This actually serves to infantilise older persons.

This does not, however, that the concept of geragogy is to be completely thrown out of the window. Rather than perceiving pedagogy and andragogy, as well as geragogy for that matter, as oppositional epistemologies, it is more valid to conceive the learning styles and patterns of different cohorts as lying on some continuum. In other words, instead of deeming pedagogy, andragogy, and geragogy as a means of learning for children, adults, and older persons respectively, it is best to conceive them as interrelated and overlapping fields, as a set of assumptions and guidelines about human learning in different phases of the life course. Peterson (1983 : 149) is right when stating that "although some would argue that older people are so distinctive that a special methodology should be created for them...it is neither practice nor necessary to separate older adults too completely from middle-aged learners". Although later life arises as a social-cultural construction rather than as a universal and natural process, so that the logic for creating a category of people and calling it the 'elderly', the 'old' or the 'aged' is fallible, one must not overlook that older persons experience situational circumstances that are different to those inhabited by younger peers. Keeping in mind the psychological, socio-economic, and bodily transformations that characterise later life already alluded to in previous chapters, it would be naive to assume that facilitators should prepare their teaching materials without taking consideration of the ages of learners. In sum, one should not expect from geragogy some comprehensive educational theory for older adult learners, but only an awareness of and sensitivity towards gerontological issues that will surely aid facilitators of older adult learners to plan and execute more efficient learning experiences.

==========

0 - 15 (15 MINUTES): ICE-BREAKER EXERCISE

In pairs, small groups or within the whole group, the tutor is to ask the participants to write down what their expectations are of the two day workshop. In pairs or small groups, allow some time to discuss responses. Then share expectations in plenary and write up answers on a flip chart. Emphasise there are no right or wrong answers during the whole workshop, only individual perspectives. Then explain to participants which of their expectations are likely to be fulfilled during the workshop and which expectations might not be realistic. Write the expectations that were collected on a flip chart so that they are clearly visible throughout the workshop and check regularly that you are on track meeting these. Reassure everyone that sharing personal information at the workshop is optional. Discussion is to be encouraged. According to the amount of time available, the objectives of your workshop and the number and structure of your participants, it might also be useful to give some input on ageing and learning.

==========

16 - 35 (20 MINUTES): FROM PEDAGOGY TO ANDRAGOGY

Tutor explains how learning is a lifelong activity and mature learners are not so distinctive to merit a special methodology of learning. Yet, it remains mature learners inhabit a physical, psychic, and social realm that is - to some extent - different from that experienced by younger and middle aged adults. The learning/teaching styles pertaining to childhood and teenagehood are referred to as 'pedagogy', and therefore, contrasted from 'andragogy' which refers to 'the art and science of helping adults learn'. On one hand, pedagogy focuses on subject matter to be learned by individuals (especially children) who had no previous knowledge, and hence, had to be instructed and motivated by external influences. On the other hand, much of adults most joyful and personally meaningful learning is undertaken with no specific goal in mind unrelated to life tasks.

Slide Virtues of learner: Dependence vs Self-directing & independence
Slide Experience: Of little value vs A rich experience to use as a resource
Slide Readiness: People learn what society expects vs people learn what they need to know
Slide Orientation: Acquisition of subject matter vs Learning based on experienced
Slide Motivation: External factors versus Internal factors

Topics and issues for discussion of the above slides are found in pages 11-14

==========

36 - 55 (20 MINUTES): AGE-RELATED CHANGES

Attention should be given to the following age-related changes and events that impact the learning experience of older adults:

Slide **Physical, psychological, and socio-cultural changes**.

The onset, course, and sequence of the ageing process are determined by the older adult's genetic and environmental factors. Degenerative changes can include visual, tactile, hearing loss, declining spatial orientation, diminished work rate, mobility and motor coordination. The psychological aspect is related to the person's capacity to adapt. Changes may occur in perception and memory, thinking, learning, and problem-solving; mood and attitude; self-concept, and personality. This life stage is characterized by losses, such as the loss of former roles and status, loss of spouse, a decline in economic security and loss of familiar surroundings. Safety and security needs are of primary concern particularly in a crisis situation. These events may result in poor self-esteem and lack of self-satisfaction. Although loss of self esteem may occur, it does not mean that they are unable or not ready to learn. The older adult will seek out situations that help them strive for independence, one that teaches self-management skills. Social acceptance is closely related to dealing with society's notions about being old, which forces them to face detrimental changes in their roles with family and the community. The older adult may have a sense of isolation and frustration, occurring around the period of retirement.

Slide **Short-term memory loss.**

Older people, in general, perform less well than youth in short-term memory. Older adults have a harder time acquiring and retrieving information and they experience difficulties in organizing new material and in processing it. The greatest problems with memory for older learners occur with meaningless learning, complex learning, and the learning of new things that require reassessment of old learning. There is a reduction in "explicit memory" that involves the intention to remember, and the subsequent ability to recall something specific on demand. Many older people fear this type of memory loss (e.g. racking the brain for a name that they should remember) as the first sign of cognitive decline. It is, however, common to many older adults as a normal part of ageing. While such short-term memory lapses can be frustrating, they need not interfere with learning if memory aids or memory training is used to compensate.

Slide **Visual changes**.

Many older adults experience some age-related vision loss. Vision generally declines from the age of 18 to 40. After 40, there is a sharp decline for the next 15 years, but after age 55, the decline in vision occurs at a slower rate. Light sensitivity and problems with depth or colour perception may be caused by cataracts (an opacity of the crystalline lens of the eye) or glaucoma (internal eye damage due to prolonged elevation of intraocular pressure). The lens of the eye become denser, more yellow and less elastic affecting older adults' ability to read fine print and see colours at the blue-green end of the spectrum. Older adults may exhibit behaviours such as squinting, relying on touch, being withdrawn or reluctant to communicate. The capacity of the pupil to adjust to changes in light is also reduced making older adults more sensitive to glare and sudden changes in levels of brightness.

Slide **Hearing changes**.

High-frequency sound is often difficult for the older adult to hear, especially when background noise interferes. There is a decline in auditory acuity with age. This age-related hearing loss is usually greater for men than for women. By the 80's, two-thirds of older adults will have some degree of hearing loss. Behaviours you need to pay attention to may be: (a) leaning closer to the speaker; (b) cupping their ear; (c) positioning their head so that the good ear is near the speaker,; (d) asking for things to be repeated; (e) answering questions inappropriately; (f) having blank looks, inattentiveness, and (g) having a shorter attention span. Ensuring that a hearing device is present and in good working order is necessary before teaching can begin.

Slide **Information processing**.

As the brain ages, the rate at which it receives and processes information slows. Links in the brain circuitry get broken requiring neurological "detours" that add to processing time. Such slowing can affect the speed of learning. It takes longer to absorb pertinent facts. Decisions often have to be made from newly acquired truths, so older adults have to be given time to understand the facts, and to process the meaning to their daily life.

Slide **Energy levels**.

An older adult's energy and stamina might be undermined by chronic diseases, such as congestive heart failure or arthritis. The more medications a person takes the greater the likelihood of drug toxicity and interactions that can affect energy and performance, both mental and physical.

Slide **External factors**.

Background noise or confusion can be distracting to older adults who are less able to handle multiple stimuli and must concentrate on learning tasks. For this reason, distracting stimuli in the learning environment should be eliminated or kept to a minimum.

==========

56 - 65 (10 MINUTES): COFFEE/TEA BREAK

==========

66 - 80 (15 MINUTES) BARRIERS TO LEARNING

Slide **Personal circumstances**

- Family and caring responsibilities – some older people are carers for their partner while others may have child-care responsibilities as grandparents and this may make attendance at courses difficult.

- Health and disability issues – some older people's disabilities, which may relate to physical or mental health, can prevent them from attending and participating in courses.

- Costs - some older people have limited incomes and cannot afford the costs of courses or of travelling to them.

- Fears about personal safety – some older people may feel unsafe when travelling to take part in courses.

Slide **Personal experiences**

- Bad experiences with education – some older people do not want to go back to learning because they suffered bad experiences with education when they were younger.

- Low self-confidence about learning – some older people do not feel confident about taking part in courses.

- Type of learning does not appeal – the types of courses that are available (e.g. accredited courses) may not be the sort that the older person wants or the style of teaching (e.g. discussions) may not be that with which the older person feels comfortable.

- Attitudes towards learning – some older people think that learning is for younger people – this may be affected by images in the media.

Slide Organisational issues

- Lack of transport – public transport may not be available at the right times or places to enable older people to travel to their courses.

- Access difficulties – some courses are held in venues where access is difficult for older people

- Course requirements – some courses may have particular requirements (e.g. use of computers, access to websites at home) that preclude an older person's participation.

- Switch to vocational courses – in many EU countries governments have placed increased emphasis on courses that lead to vocational qualifications and have removed funding for general adult education and learning for pleasure.

==========

81 - 100 (20 MINUTES): PRINCIPLES OF MATURE LEARNING

Principle 1: Learning is enhanced when it is applicable to real life contexts.

Adults prefer learning situations that allow choice and self-direction. Teaching should be targeted to what the learner needs and wants to know. They want to be able to apply whatever knowledge they gain today to living more effectively tomorrow. Being performance-centred in their orientation to learning, their learning activities should be organized around competency development. Allow for as much choice as possible in making decisions during the learning experience. Ask what they already know about the topic, and then create a mechanism for mutual planning to help adults diagnose their needs, for example, the objectives and learning activities can be designed specifically to suit their needs. Share your agenda and assumptions. They will learn more than if they are passive recipients of "canned" educational content.

Principle 2: Learning depends upon past and current experience. Capitalise on experience.

An older person has accumulated a reservoir of life experiences and an increasingly rich resource for learning. They attach more meaning to learning they gained from experience than those they acquire passively. Knowledge they acquired through previous and current work-related activities, family responsibilities, and their previous education must be clearly connected to what they are learning. The primary teaching strategy should be experiential, such as hands-on activities, self-report diary, problem-solving cases, discussion, etc. Because their knowledge is a resource for you, integrate new ideas with their existing knowledge, validating and affirming their knowledge, contributions, and successes.

Principle 3 Mature learners prefer learning that is problem-centred and readiness to learn must exist before effective teaching can be done.

Older adults become ready to learn something when they experience a need to know in order to cope more satisfyingly with read-life tasks and problems. They seek practical results from learning. Some of the social and developmental tasks in later adulthood include: adjusting to decreasing physical strength and health, adjusting to retirement and reduced income, adjusting to the death of a spouse and other family members, establishing affiliation with one's age group, establishing satisfactory physical living arrangements, or relocation. Life events should be acknowledged. A teacher enhances the older adult's problem-solving activities through the use of teaching strategies such as case studies, problem-solving groups especially with those who are facing similar life events. They want to immediately apply new information or skills to current problems of situations.

Principle 4 Adults are people whose style and pace of learning has probably changed. Senior adults learn through their physical senses about the world around us.

Most adults prefer teaching methods other than the lecture format. Eighty three percent (83 per cent) of the adult population are primarily visual learners; only 11 per cent learn primarily by listening. This is one of the reasons why retention from lectures is so poor. Still other adults learn by doing something immediately with new knowledge (kinetic learners). Educational programming, therefore, should incorporate a variety of teaching methods, alternating passive and active methods. Use small group problem solving and discussion, auditory, visual, tactile and participatory teaching methods. Reaction time and speed of learning may be slow, but the ability to learn is not impaired by age. As a general rule, introduce a different activity every 20 minutes. Examples of activities are: case vignettes, role-play, games, demonstration, simulation, audiovisuals, small group discussion, ice-breakers, and self-assessment instruments.

Principle 5 Senior adults better retain what they have learned when learning is exciting, lively, and informal.

Adults will be more likely to contribute and become active participants in the learning process if the learning environment is informal. Room arrangement, the use of ice-breakers to break down barriers between learners, and small group activities will encourage open communications and the risk taking that is necessary for shedding old ideas and habits, and acquiring new ones.

Principle 6 Adults want guidance, not grades

Confronted with tests, grades, and other devices for evaluation, adults draw back from the whole experience. Guided evaluation of one's own performance measured against one's own goals is effective.

==========

101-121 (20 MINUTES): THE LEARNING ENVIRONMENT (SLIDES)

Part 1 of 2 Geragogical issues

Motivation. Older adults returning to the classroom generally face a challenge to their independence and control since individuals grow to be independent in life, but as adults return to the classroom, they may fall back on the educational experience of their youth. This is especially true for older learners holding a working class background. Their educational inexperience tends to engender them with feelings of nervousness and trepidation, as they tend to be unsure of what they are doing and afraid of not being able to relate well with more well-read peers. Hence, facilitators must work to help older adults foster the control that they may be consciously or unconsciously lacking through continuous encouragement to take responsibility for their learning by choosing those methods and resources by which they want to learn. A useful strategy here is to emphasise the importance of personal goal setting at the beginning of the course schedule and encourage it through activities such as making a personal statement of what the learners want to achieve by the end of the course. Hence, older learners are empowered in both the setting of learning goals and evaluation. Wlodkowski (1999) reports that older adults thrive in learning experiences embedded in respectful relationships. A positive rapport between teacher and learner provides a feeling of social inclusion that generates much motivation and enthusiasm, and consequently, a sense of community. One strategy for this is to allow for personal introductions with the instructor emphasising his/her interest towards the students, as first and foremost, people. Following Wlodkowski (ibid.), facilitators can therefore motivate older learners by (i) establishing a

culture of inclusion where learners respect and connect with each other, (ii) developing a positive attitude by asking learners what they want to learn to promote interest in subsequent sessions, (iii) enhancing meaning by requesting learners to form questions and ideas related to the subject under focus, and (iv), engendering competence by asking learners to complete self-assessments about their learning experience.

Part 2 of 2 Ergonomic issues

The classroom environment. For older adult learning to be effective, the learning experience must take advantage of the extensive experience of older learners. Facilitators are encouraged to draw on the life experiences of the learners in a variety of effective ways: by allowing to share examples of their experiences with the class, and encouraging them to think about how those examples relate to class information. Course material that is presented in a way that reflects the 'real world', rather than some abstract component, is very popular with older learners (Peterson, 1983). Here, it is important for facilitators to synchronise themselves with the life course experience of learners to ensure that they use examples that are meaningful to people born before World War II, and who lived their teenage and early adult years in the early fifties and sixties respectively. The challenge is to resist treating older adults from different cohorts and generations as a homogeneous group. At the same time, facilitators must ensure that older learners do not suffer from credential pressures and realise that many prefer slower paced learning. Being born even half a decade apart may result in substantially diverse psychological, cultural and economic pathways. If circumstances permit, older learners should be allowed to opt for self-paced instruction so that they are provided with the time they need to comprehend the sessions' material. Keeping in mind that older adults tend to suffer from visual problems, as well as general health issues, researchers have found that older learners often develop a preference for auditory learning. This implies that whilst in earlier years older adults may have preferred to see or read information to understand it, with ageing their preference may change to hearing the information or listening to accounts that they find interesting. However, since a class generally includes older learners with different bodily challenges it is best to present the material in various methods. For example, providing handouts but in the process ensuring that the material written on them is read out loud.

- Eliminate background noise and distractions.

- Be aware of poor lighting. Choose a room with natural lighting. Have your audience face away from the light and glare of a bright window, or adjust shades or curtains as the intensity of natural light changes throughout the day.

- Use high levels of illumination or provide intense lighting for small group tasks.
- Space tables and chairs far enough apart to minimize the background noise of others talking nearby.

- Use chairs that are comfortable and level, neither too low nor too deep for those older adults who have problems with arthritis or difficulty rising from a sitting position.

- Position those with hearing loss near sound absorbing materials like heavy drapes and away from large hard wall surfaces that create sound "glare".

- Schedule your learning program for a high-energy time of day. The worst time slot for education is right after lunch.

==========

121-130 (10 MINUTES): CONCLUSION

Tutor to recapitulate the key points and issues raised during the training session.

==========

8. *CURRICULUM PACK III*

TEACHING ICT SKILLS TO MATURE LEARNERS

TRAINING THE TRAINERS OF MATURE LEARNERS Session 3 TEACHING ICT SKILLS TO MATURE LEARNERS	
Time (130 minutes)	**Description**
0-15 (15 minutes)	**Ice-Breaker exercise** *Tutor will ask for three volunteers to open the training session and recount any notable experience on teaching/learning issues they had with older adult learners. Encourage the group to discuss and comment on each experience, and act as a catalyst so that links are made with previous and the current session topics.*
16-35 (20 minutes)	**The digital divide & benefits of ICT learning** *Tutor highlights how persons who have low levels of education, income poor, and older, tend to experience digital exclusion. There are various benefits to aiding older and mature learners to become e-literate and competent in surfing the internet.*
36-55 (20 minutes)	**Teaching ICT to mature learners** *The class will discuss how it is best to teach ICT skills to mature/older learners. The class will also dedicate some time to discuss the gender digital divide in later life.*
56-65 (10 minutes)	**Coffee/tea break**
66-85 (20 minutes)	**Presentation skills** *Tutors will - together with the learners - discuss the most effective presentation skills for teaching mature and older persons.*
85-105 (20 minutes)	**Visual and audio aids** *Tutors will - together with the learners - discuss the most effective visual and audio aids for teaching mature and older persons.*
106-120 (15 minutes)	**Effective educational materials** *Tutor will highlight how learners retain approximately 20% of what they read. This warrants facilitators to provide the audience with handouts that generally result in greater learning retention.*
121-130 (10 minutes)	**Conclusion** *Tutor to recapitulate the key points and issues raised during the training session*

Preamble

Here, it is interesting to highlight the professional figure of the 'educator' who works with different age groups, but works more and more within the context of mature learners, due to the increase of this generational group. Such educators address non-formal education (out of the school context) in the fields of adult education (including the elderly), social integration of the disabled and people with a disability, as well as educational action. The main professional activities in the field of mature learners, deal with literacy, basic education, remedial education, vocational training programmes, continuous training and problems of the elderly in a socio-educational context, as well as in the cultural and welfare context.

In the case of mature learners, the professional profile of the 'educator' is oriented towards the field of 'socio-cultural recreation'. One of the key functions of socio-cultural motivation consists in the mature learners becoming the agents and protagonists of their own development. What is of particular importance is that these professionals generate processes of participation creating spaces for communication between groups and individuals (one of the biggest problems facing the elderly is related to loneliness, lack of communication, etc.) in order to stimulate the different elderly groups and to facilitate processes of *social development* (responding to their needs in their space, time and specific situations, and *cultural development* (building their own collective identity, generating and taking part in different projects and cultural activities).

As a result of these characteristics, socio-cultural recreation programmes must be very different and must be adapted to the situation of the older population and its respective requirements. Generally speaking, the main goals are to:

- offer older adults the possibility of personal achievement, context awareness, and participation in community life;
- obtain greater integration in society, to be heard, valued and their opinions respected
- encourage education and *lifelong learning*;
- offer the possibility to enjoy culture;
- establish the 'channels' for knowledge to be shared in a flexible, enriching and entertaining way;
- develop critical thinking activities through reflection and debate groups
- be open to other age groups; and
- take part and create the attitudes and the means to be able to fully enjoy life;

==========

0 - 15 (15 MINUTES): ICE-BREAKER EXERCISE

Tutor will ask for three volunteers to open the training session and recount any notable experience on teaching/learning issues they had with older adult learners. Encourage the group to discuss and comment on each experience, and act as a catalyst so that links are made with previous and the current session topics.

==========

16 - 35 (20 MINUTES): THE DIGITAL DIVIDE AND BENEFITS OF ICT LEARNING TO MATURE AND OLDER PERSONS

go through and elaborate on the information present in chapter 4

==========

36 - 55 (20 MINUTES): TEACHING ICT TO MATURE AND OLDER PERSONS

go through and elaborate on the information present in chapter 5

==========

55 - 65 (10 MINUTES): COFFEE/TEA BREAK

==========

66 - 85 (20 MINUTES): PRESENTATION SKILLS

Tutors will go over the below information, which focuses on good practice in teaching mature learners, with the aid of the slides.

General remarks (SLIDE)

- Take time upfront to establish audience rapport. If you speak to your audience individually before the presentation, you might find out their concerns and potential questions which can be addressed in the presentation. *It would however, be inappropriate to*

single out the individual(s) involved. Show respect.

- ❖ Always speak to the patient or audience and identify yourself when entering the room. It may be necessary to touch the learners so he or she is aware of your presence before you attempt to speak.
- ❖ Position yourself close to your audience during interactions. Get your audience's attention before beginning to speak. Position yourself so you can be seen by all. During individual interactions, keep yourself positioned on the same level as the patient and not very far away from the learners to allow for lip reading and gestures to be noted.

- ❖ Expect to take more time in teaching older adults, so you will not be frustrated if the pace is slower.

Pitch (SLIDES)

Trainers of mature learners are advised to use other forms of sensory stimulation such as touch, sound, smell. Substitute or reduce reading demands by using tapes, CDs, models, etc. Things to keep in mind:

- ❖ Have light on your face and stay out of the shadows to be seen clearly.

- ❖ Ask periodically if your audience can hear you. ***A word of caution: Remember that older learners may be embarrassed to admit their difficulty in hearing and feel less confident***. A decline in their self-confidence can be a barrier before you can even begin. If you use a microphone, check to make sure the amplification is neither too loud nor too soft. Ensure that a hearing device is present and in good working order before you teach.

- ❖ Speak slowly and distinctly. Use clear tones in a low-frequency range, that is speak deeper, not louder. Do not hide your mouth, eat, or chew while speaking to the older adult. Avoid dropping your voice at the end of each sentence. Furthermore, use shorter sentences and repeat or rephrase important areas of instruction. If necessary, write or draw the information.

- ❖ KISS (Keep it Simple Speaker). Concentrate on the NEED TO KNOW and NICE TO KNOW information. Cover only three major points per session. Support these main points with a handout and a visual that outlines these point and guides note taking.

- ❖ Repeat, Repeat, Repeat. Like the rest of us, the more often we repeat an act, the more quickly we develop a habit. A skill develops more rapidly as an individual practices that skill. The repetition of mental and physical activities forms a habit, and the habit becomes so much a part of a person that we perform the skill with ease and assurance.

- State your most important learning points at the beginning and end of a teaching session. Repeating a concept in different ways and through different sensory channels is extremely useful in helping improve the older adult's memory and learning.

- Arrange information sequentially in a logical progression of learning, from simple or familiar to complex or unfamiliar tasks / information. Do not change the topic abruptly.

- Use familiar terms. Avoid complex medical terms, jargon, and acronyms. Use gestures or objects to clarify what you are saying. Maintain a reservoir of synonyms as repetition is a critical element to teaching older adults, who need multiple opportunities to hear, read, and write the information in the learning process.

- Use anecdotes or examples, relevant to learners' experience or use learners' examples to illustrate your points.

- Stop periodically to ask for questions and/or feedback to check on understanding.

- Use a conversational, interactive style. Get out from behind the lectern. Circulate around the room but always face the learners.

==========

86 - 105 (20 MINUTES): VISUALS AND AUDIO AIDS (SLIDES)

- Since most adults are primarily visual learners, adding visual elements in the classroom like audiovisuals, flip charts, and handouts is key. The adage "a picture is worth a thousand words" is certainly true within a learning context for older adults. Memory involves the formation of mental images and people think in pictures, not in words.

- A visual aid should be easily seen. We've all been in a presentation where the presenter has apologized for poor slides or overheads. If your audience cannot see or read it, why use it? This is even more important if the audience consists of adults with visual loss.

- Have a magnifying glass or a small flashlight available for use, if needed.

- A visual aid helps the learner to "see" the point you are making. Your visual, therefore, should relate to your key points, showing something of importance such as a key word, thought, or better yet, a picture, cartoon, or video clip. Do not cram too much information into one visual.

- Overheads and slides can be used in any size room since image size can be adjusted by the placement of equipment and adjusting the focus. Use tinted transparencies for overheads because it is easier on the eyes. For slides, yellow lettering on blue background is the most readable. Rather than turning the lights off, use colors with sharp contrast.

- If you use audiovisual equipment, make sure you continue to face your audience. Do not face the screen. Remember, seeing your face will enhance understanding.

- Flip charts and videos should only be used with small groups. For flip charts, use simple block lettering. Thick letters are easier to read. Materials are easier to read when upper and lower case letters are used. *Avoid decorator letter styles, thin condensed letters, calligraphy, or script*.

- Black lettering on white background offers the greatest contrast and visibility. Highlighting with neon markers can indicate important pertinent facts.

- The normal rule of thumb is 5 X 5: no more than 5 lines or five words per line should be used on any visual. For older adults, since the lettering must be bigger, 3 X 3 may be preferable.

- If there is any way to convey your message with a picture, do it. People retain the ability to recognize complex pictures even as they age. One only has to experience the visual icons on Times Square to remember the message and buy their products. If you use pictures, be careful to select those that are clear, age-appropriate, non-ageist, and accurately represent older people, not their stereotypes. *Proceed with caution when using charts with rows and columns, because the interpretation of the chart involved a different cognitive skill that declines with age.*

- Provide your audience with handouts of a packet they can keep, along with copies of your visuals and audiovisuals to follow along. Do not frustrate older learners by expecting them to take copious notes or remember your key points.
- Make learning fun and interactive. Do not do all the talking.

==========

106 - 120 (15 MINUTES): EFFECTIVE EDUCATIONAL MATERIALS (SLIDES)

Learners retain approximately 20 per cent of what they read. Providing the audience with handouts they can refer to later results in greater learning retention. Reading materials must be reader-friendly to older eyes. Tutors have to keep these design issues in mind when planning educational activities for mature and older adults:

- Use dark print on light backgrounds. Black on white matte, non-glossy paper is best. The greater the colour contrast, the easier it will be for older eyes to read.

- When using colours, use autumn colours like brown, orange, and yellow. Avoid violets, blues, and greens, which are more difficult for mature eyes to see.

- Use plain, clear typeface that is at least 12- to 14-point type size.

- Combine upper and lower case. Avoid all capital letter, italicized and other ornamental print.
- Limit the amount of information you provide. The more you give older adults to read, the less likely they are to read it. Use bullets and boxes to highlight key information. Use ample spacing and white space to further heighten the readability of the text. Keep the text short.

- Use familiar organizational formats. Standard paragraphs with headings work well.

- In referring to older learners, use terms such as older adults or senior adults. Avoid negative terms that suggest that older persons are afflicted, victims of, or suffering from a chronic illness.

==========

121 - 130 (10 MINUTES): CONCLUSION

Tutor to recapitulate the key points and issues raised during the training session

==========

9. CHECKLIST FOR EDUCATORS/TUTORS/FACILITATORS

_____	1.	Did you assess learners' needs to determine learning objective?
_____	2.	Does your educational design reflect "need to know" rather than "nice to know" material?
_____	3.	Have you adapted your materials and approach to address the memory, visual and hearing changes, information processing changes, and external factors that influence learning?
_____	4.	Is your design problem-centred rather than subject-centred?
_____	5.	Does your design allow for and expect learners to take an active role in their own learning?
_____	6.	Have you addressed all three domains of learning (cognitive, affective, and practical) as they apply to your topic?
_____	7.	Does your design employ a variety of educational techniques besides lecture?
_____	8.	Are you materials at the 5th to 8th grade reading level?
_____	9.	Have you made it easier for learners to learn by providing handouts that summarize your learning points or guide note taking?
_____	10.	Are all your visuals visible and readable by an older adult population?
_____	11.	Have you considered how to make the learning climate informal, respectful, and collaborative?
_____	12.	Have you considered the need to involve family/informal caregivers in the learning process?
_____	13.	Have you made learning fun?

10. EVALUATION SHEET

	strongly agree	agree	unsure	disagree	Strongly disagree
Organisation of workshop					
I found the information received before the workshop.					
The aim and objectives of the workshops were clear.					
The content of the workshop met my initial expectations.					
The workshop was of help in strengthening the skills relevant to training others.					
There was a link between the different sessions.					
I would recommend these sessions to other trainers.					
The sessions were well organised.					
The duration and timing of the different parts of the workshop were adequate.					
Delivery of sessions					
The material covered was adequate.					
Sessions were understandable and stimulating.					
The delivery of the sessions was intellectually challenging.					
Tutor/s encouraged student participation.					
The sessions were delivered through the use of appropriate media.					
Tutor/s appeared to be knowledgeable about the subject.					
Tutor/s was/were well prepared.					
Tutor/s was/were constantly punctual.					
Tutor/s was/were available to help us with any difficulties.					
The lecture room provided was suitable.					

Additional Comments _____

_____

_____

_____

11. REFERENCES

Ardelt, M. (2000). Intellectual versus wisdom-related knowledge: The case for a different kind of learning in the later years of life. *Educational Gerontology*, 26(8), 771-789.

Findsen, B., AND Formosa, M. (2011). *Lifelong learning in later life*: *A handbook on older adult learning*. Amsterdam: Sense.

John, M.T. (1983). *Teaching and loving the elderly*. Springfiel, IL: Charles C. Thomas.

John, M.T. (1988). *Geragogy: A theory for teaching the elderly*. Binghampton, NY: The Haworth Press.

Knowles, M. (1984). *Andragogy in action*. San Francisco: Jossey-Bass.

Lebel, J. (1978). Beyond Andragogy to geragogy. *Lifelong learning: The adult years*, 1(9), 16-8.

National Office of Statistics, (2011). *Demographic review 2010*. Malta: National Office of Statistics.

National Statistics Office (2007) *Census of population and housing: Population*. Malta: National Statistics Office.

National Statistics Office (2011). *ICT usage by enterprises and households*. Malta: National Office of Statistics.

Ng, C. (2008) Motivation among older adults in learning computer technologies: A grounded model. Educational Gerontology. 34, 1: 1-14

Palmore, E., (1988). *The facts on Aging Quiz*. New York : Springer Publishing Co.

Peterson, D.A. (1983). *Facilitating education for older learners*. San Francisco: Jossey-Bass.

United Nations, (2012). *World population prospects: The 2010 revision, Volume II: Demographic profiles*. http://esa.un.org/unpd/wpp/Documentation/pdf/WPP2010_Volume-II_Demographic-Profiles.pdf

Weiss, R.S., & Bass, S.A. (2002). Introduction. In R.S. Weiss and S.A. Bass (eds.), *Challenges of the third age: Meaning and purpose in later life* (pp. 3–12). New York: Oxford University Press.

Wlodkowski, R.J. (1999). *Enhancing adult motivation to learn* (2nd ed.). San Francisco: Jossey-Bass.

APPENDIX A

TRUE OR FALSE EXCERCISE

TRUE OR FALSE EXCERCISE

Adapted from Palmore (1988)	**Veru jew Falz** **True or False**
Il-maġġoranza tax-xjuħ (minn 65 'il fuq) huma senili (għandhom memorja difettuża, jew huma diżorjentati, inkella dementi). **The majority of old people (age 65+) are senile (have defective memory, are disoriented, or demented).**	
Il-ħames sensi (il-vista, is-smigħ, it-togħma, il-ħass, u x-xamm) kollha għandhom ħabta jmajnaw fix-xjuħija. **The five senses (sight, hearing, taste, touch, and smell) all tend to weaken in old age.**	
Il-maġġoranza tax-xjuħ m'għandhom l-ebda interess f'relazzjonijiet sesswali u lanqas m' għandhom kapaċità għalihom. **The majority of old people have no interest in, nor capacity for, sexual relations.**	
Il-kapaċità vitali tal-pulmun għandha ħabta tmajna fix-xjuħija. **Lung vital capacity tends to decline in old age.**	
Il-maġġoranza tax-xjuħ il-biċċa l-kbira taż-żmien iħossuhom imdejqin. **The majority of old people feel miserable most of the time.**	
Is-saħħa fiżika għandha ħabta tmajna fix-xjuħija. **Physical strength tends to decline in old age.**	
Iktar minn xiħ minn kull għaxra qed jgħixu f'istituzzjonijiet fuq medda twila ta' żmien (bħalma huma nursing homes, sptarijiet mentali, djar tax-xjuħ, eċċ.). **More than one tenth of the aged are living in long-stay institutions (such as nursing homes, mental hospitals, homes for the aged, etc.).**	
Sewwieqa xjuħ ikollhom inqas aċċidenti għal kull sewwieq minn dawk li għandhom inqas minn 65. **Aged drivers have fewer accidents per driver than those under age 65.**	
Ħaddiema aktar avvanzati fl-età fil-biċċa l-kbira ma jistgħux jaħdmu b'mod effettiv daqs ħaddiema iżgħar. **Older workers usually cannot work as effectively as younger peers.**	
'Il fuq minn tliet kwarti tax-xjuħ huma f'saħħithom biżżejjed biex iwettqu l-attivitajiet ta' kuljum tagħhom mingħajr għajnuna. **Over three fourths of the aged are healthy enough to carry out their normal activities without help.**	

	Veru jew Falz True or False
Il-maġġoranza tax-xjuħ mhumiex kapaċi jadattaw għall-bidla. **The majority of old people are unable to adapt to change.**	
Ix-xjuħ jieħdu aktar żmien biex jitgħallmu xi ħaġa ġdida. **Old people usually take longer to learn something new.**	
L-irtirar minn fuq il-post tax-xogħol huwa ħazin ghas-saħħa. **Retirement is detrimental to an individual's health.**	
Ix-xjuħ jirreaġixxu aktar bil-mod miż-żgħażagħ. **Older people tend to react slower than younger people.**	
Inġenerali, ix-xjuħ għandhom ħabta li jkunu prattikament simili. **In general, old people tend to be pretty much alike.**	
Ix-xjuħ tista' tiġi mqabbla mat-tfulija. **Old age can be often characterized as a second childhood.**	
Il-maġġoranza tax-xjuħ huma soċjalmenti iżolati. **The majority of old people are socially isolated.**	
L-uġigħ huwa naturali fix-xjuħija. **Pain is a natural part of the ageing process.**	
Ix-xjuħ qed jisfaw abbandunati mit-tfal tagħhom. **Most older adults are rejected by their children.**	
Il-maġġoranza tax-xjuħ għandhom introjtu li huwa inqas mil-livell tal-faqar. **The majority of old people have incomes below the poverty line.**	
Ix-xjuħ huma ġeneralment inkwetati fuq il-mewt. **Most older adults tend to be preoccupied with death.**	
Ix-xjuħ għandhom tendenza li jsiru aktar reliġjużi iktar ma jixjieħu. **Old people tend to become more religious as they age.**	
Il-maġġoranza tax-xjuħ rari jkunu rritati jew rrabjati. **The majority of old people are seldom irritated or angry.**	

APPENDIX B

CURRICULUM PACK I

SUPPORTING AND MENTORING MATURE LEARNERS

CURRICULUM PACK I

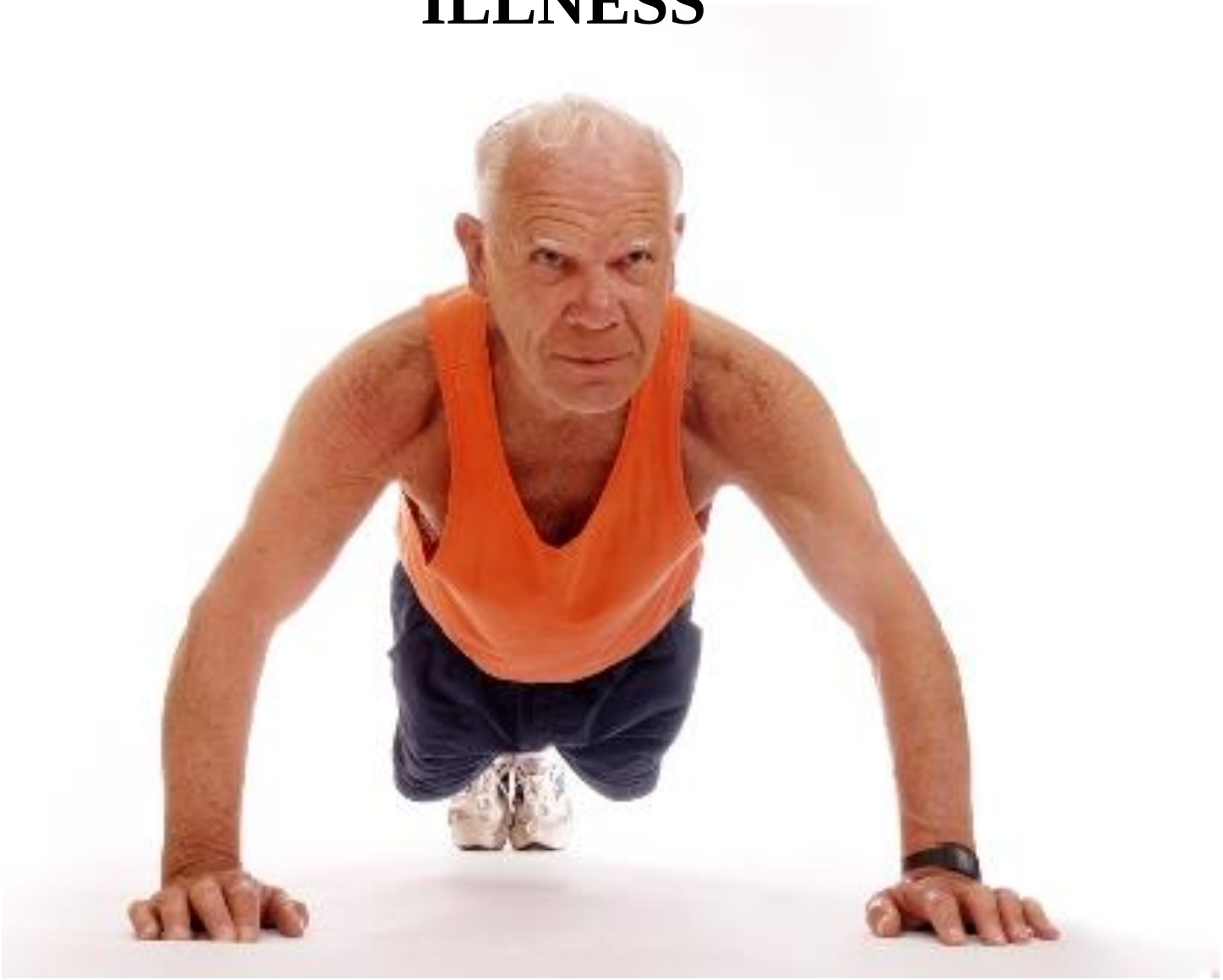
OVERCOMING STEREOTYPES: THE TRUTH ABOUT MATURE LEARNING

OVERVIEW

- **ICE-BREAKER (15 minutes)**
- **TRUE OR FALSE EXCERCISE (30 minutes)**
- **STEREOTYPES ON LATER LIFE (30 minutes)**
- **COFFEE BREAK (10 minutes)**
- **INTELLECTUAL ABILITIES (20 minutes)**
- **MYTHS IN MATURE LEARNING (20 Minutes)**
- **CONCLUSION (10 minutes)**

STEREOTYPES ON LATER LIFE

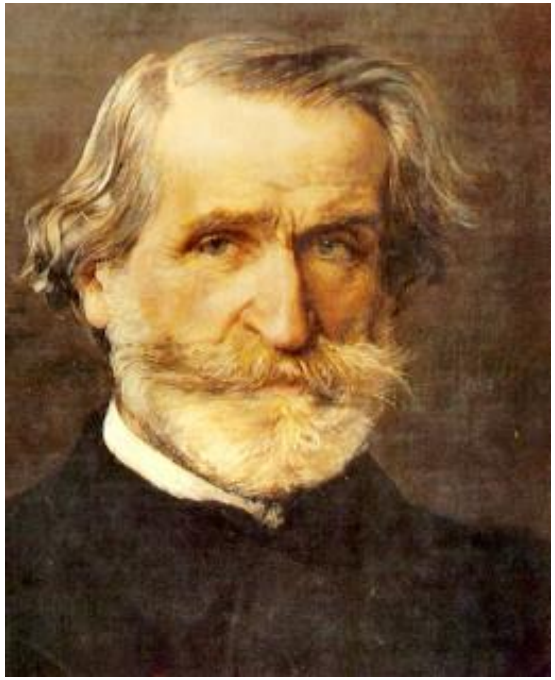
ILLNESS



IMPOTENCY

UGLINESS

MENTAL DECLINE



GUISEPPE VERDI

PABLO PICASSO

MENTAL ILLNESS

USELESSNESS

OLDER WORKERS, OLDER VOLUNTEERS, FAMILY CARE

ISOLATION

POVERTY

DEPRESSION

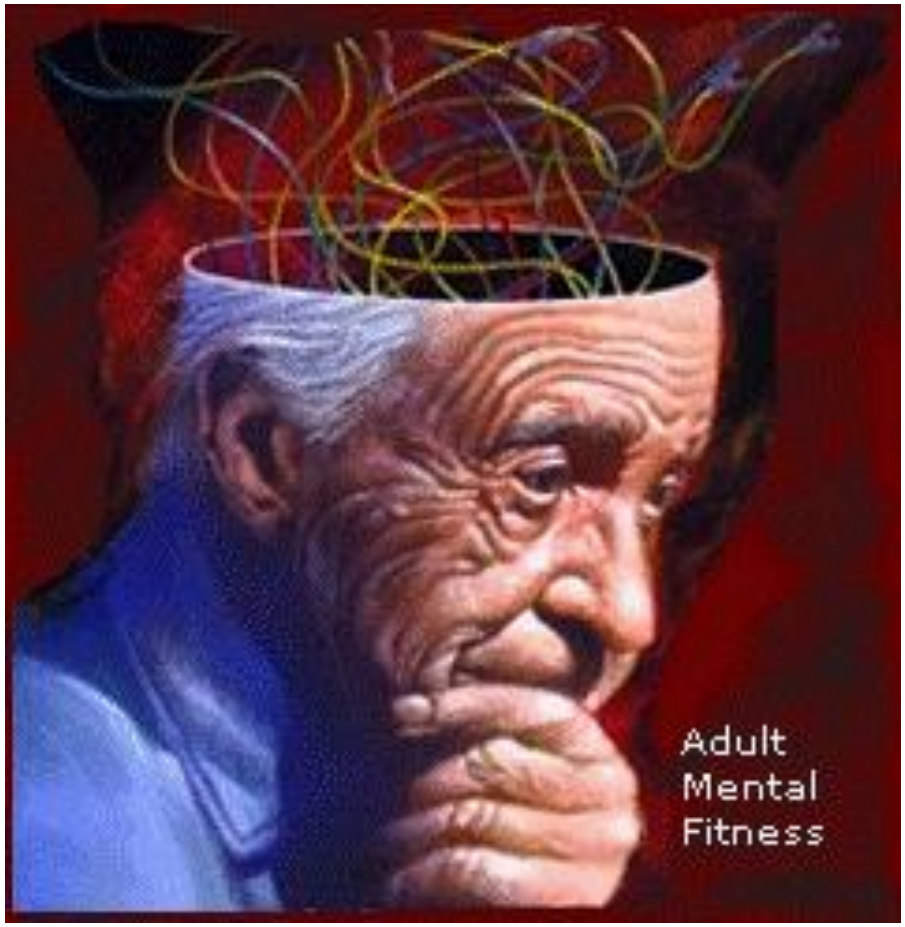
POLITICAL POWER

COFFEE/TEA BREAK

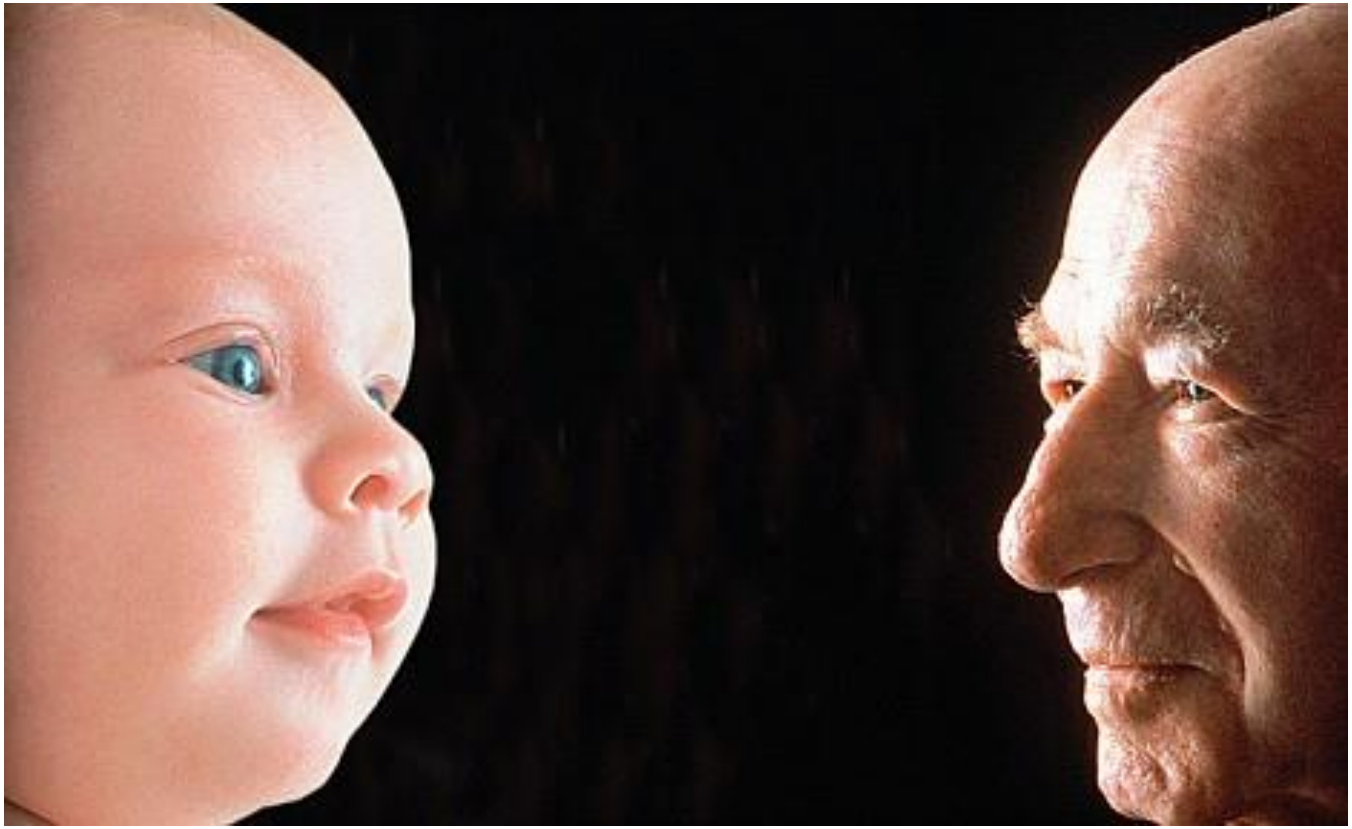
ENJOY!

INTELLECTUAL ABILITIES

MATURE LEARNERS HAVE LESS BRAIN CAPACITY



MATURE LEARNERS' BRAIN CAPACITY IS DIMINISHED



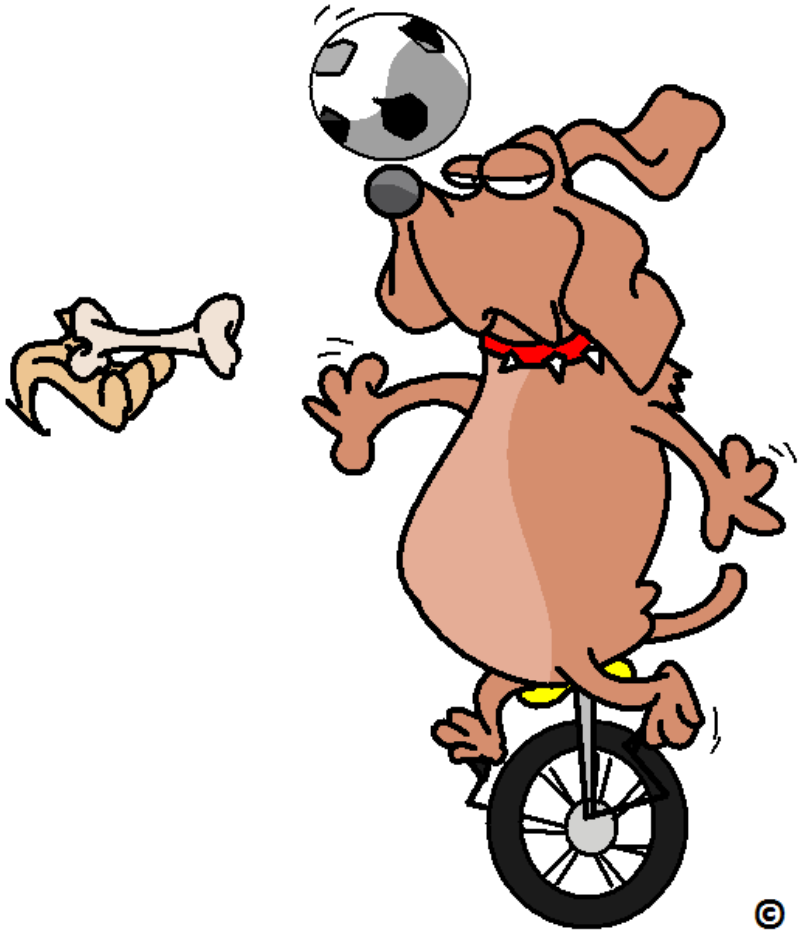
MATURE LEARNERS ARE TOO SLOW TO LEARN ANYTHING NEW

MATURE LEARNERS FORGET THINGS

MYTHS IN MATURE LEARNING

OLDER PERSONS ARE NOT INTERESTED IN LEARNING

MATURE LEARNERS ARE NOT INTERESTED IN LEARNING ANYTHING NEW



MATURE LEARNERS ARE NOT INTERESTED IN ICT

MATURE LEARNERS ONLY WANT TO LEARN WITH OLDER PEOPLE

CONCLUSION

APPENDIX C

CURRICULIM PACK II

SUPPORTING AND MENTORING MATURE LEARNERS

CURRICULUM PACK II

WHAT EVERY TRAINER NEEDS TO KNOW

OVERVIEW

- **ICE-BREAKER (15 minutes)**
- **FROM PEDAGOGY TO ANDRAGOGY (20 minutes)**
- **AGE-RELATED CHANGES (20 minutes)**
- **COFFEE/TEA BREAK (10 minutes)**
- **BARRIERS TO LEARNING (20 minutes)**
- **PRINCIPLES OF MATURE LEARNING (20 minutes)**
- **THE LEARNING ENVIRONMENT (20 minutes)**
- **CONCLUSION (10 minutes)**

FROM PEDAGOGY TO ANDRAGOGY

Virtues of learner

Dependence

vs

Self-directing

Experience

Of little value

vs

A resource to learning

Readiness

People learn what society expects

vs

People learn what they need to know

Orientation

Acquisition of subject matter

vs

Learning based on experiences

Motivation

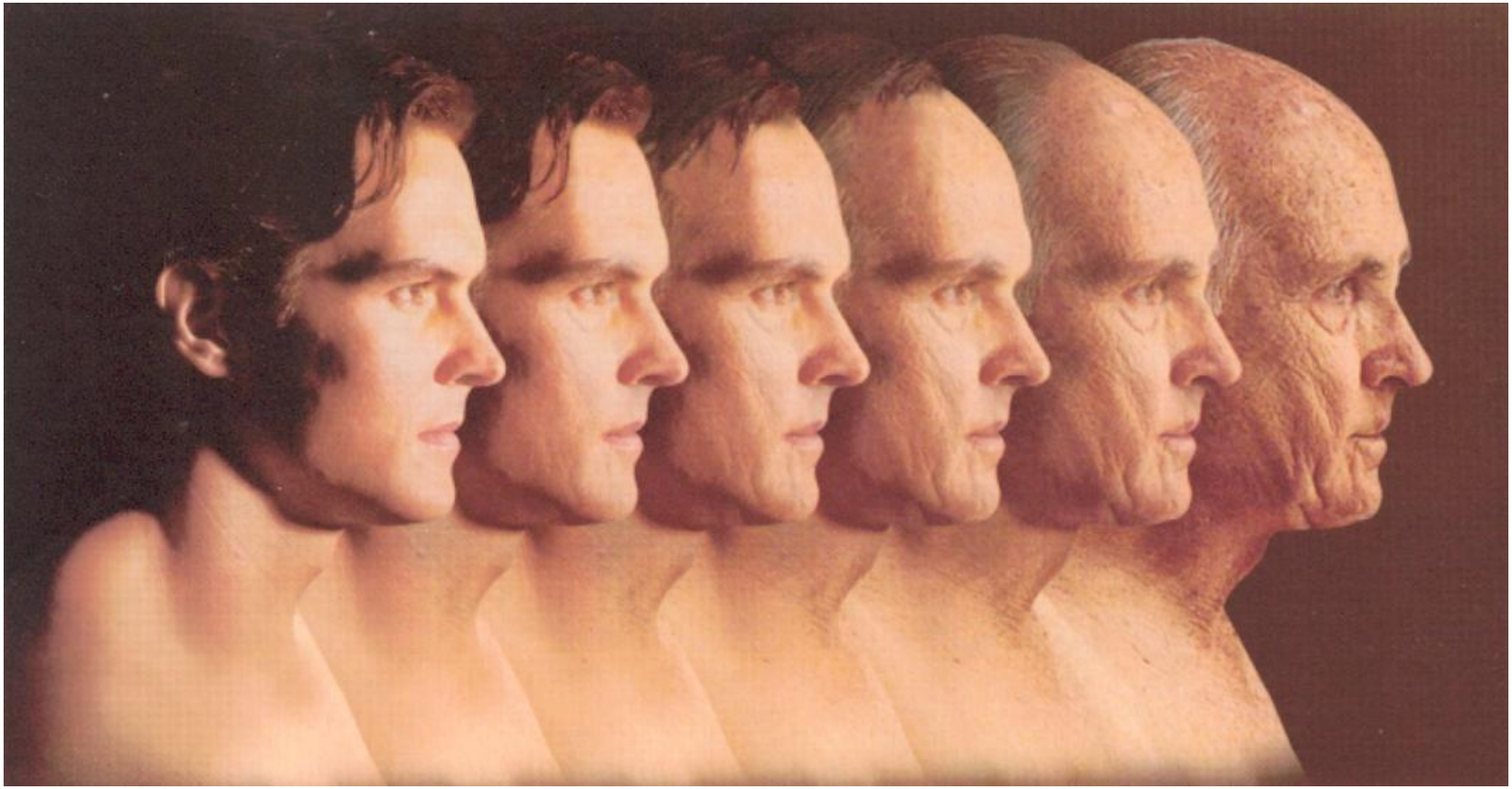
External factors

vs

Internal factors

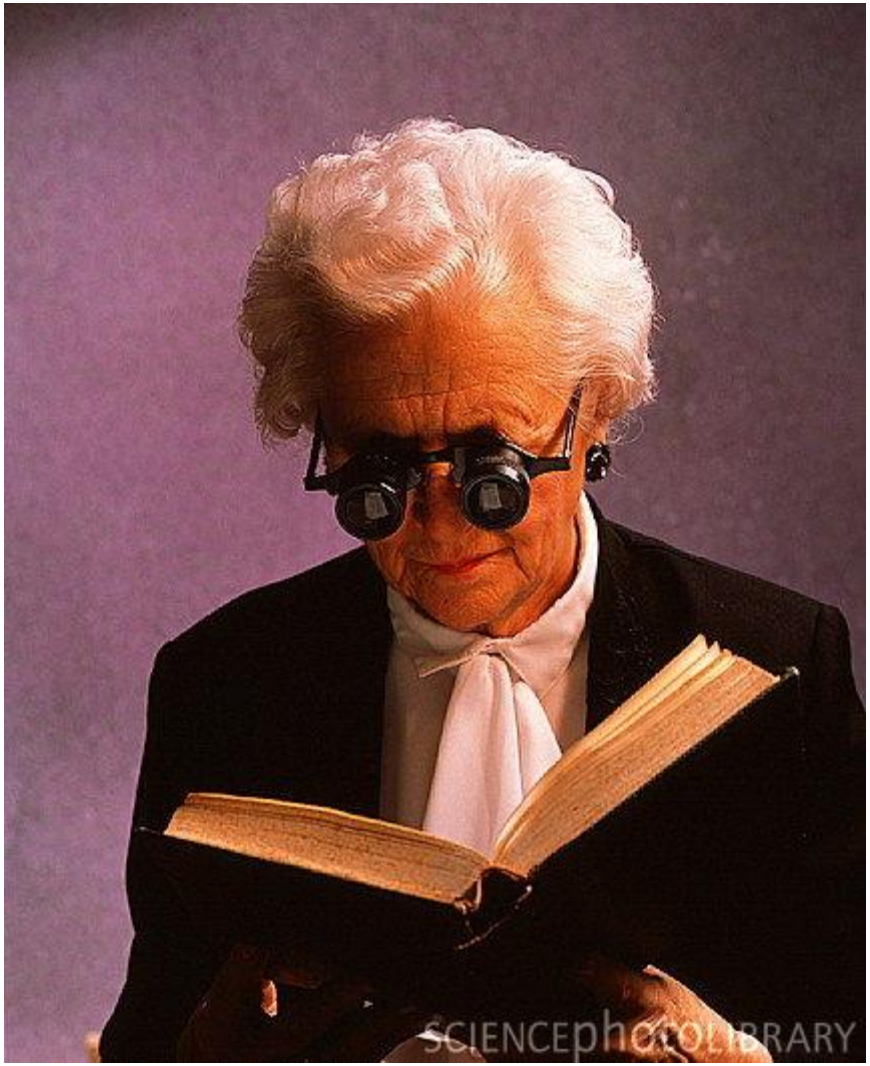
AGE RELATED CHANGES

PHYSICAL, PSYCHOLOGICAL AND SOCIO-CULTURAL CHANGES



SHORT-MEMORY LOSS

VISUAL CHANGES



HEARING CHANGES

TRANSCENDENCE NEEDS

ENERGY LEVELS

EXTERNAL FACTORS

COFFEE/TEA BREAK

ENJOY!

BARRIERS TO LEARNING

PERSONAL CIRCUMSTANCES

PERSONAL EXPERIENCES

ORGANISATIONAL ISSUES

PRINCIPLES OF MATURE LEARNING

Learning is enhanced when it is applicable to real life contexts.

Learning depends upon past and current experience.

Mature learners prefer learning that is problem-centred; a readiness to learn must exist before effective teaching can be done.

Adults are people whose style and pace of learning has probably changed. Senior adults learn through their physical senses about the world around us.

Senior adults better retain what they have learned when learning is exciting, lively, and informal.

Adults want guidance, not grades.

THE LEARNING ENVIRONMENT

MOTIVATION

TEACHING STRATEGIES

ERGONOMIC ISSUES

- **Eliminate background noise and distractions.**
- **Be aware of poor lighting. Choose a room with natural lighting. Have your audience face away from the light and glare of a bright window, or adjust curtains.**
- **Use high levels of illumination or provide intense lighting for small group tasks.**

- **Use high levels of illumination or provide intense lighting for small group tasks.**
- **Space tables and chairs far enough apart to minimize the background noise of others talking nearby.**
- **Use chairs that are comfortable, neither too low nor too deep for those older adults who have problems with arthritis or difficulty rising from a sitting position.**

- **Position those with hearing loss near sound absorbing materials like heavy drapes and away from large hard wall surfaces that create sound “glare”.**

- **Schedule your learning program for a high-energy time of day. The worst time slot for education is right after lunch.**

CONCLUSION

APPENDIX D

CURRICULIM PACK III

SUPPORTING AND MENTORING MATURE LEARNERS

CURRICULUM PACK III

TEACHING ICT TO MATURE LEARNERS

OVERVIEW

- **ICE-BREAKER (15 minutes)**
- **THE DIGITAL DIVIDE AND BENEFITS OF ICT LEARNING (20 minutes)**
- **TEACHING ICT TO MATURE LEARNERS (20 minutes)**
- **COFFEE/TEA BREAK (10 minutes)**
- **PRESENTATION SKILLS (20 minutes)**
- **VISUAL AND AUDIO AIDS (20 minutes)**
- **EFFECTIVE EDUCATIONAL MATERIALS (15 minutes)**
- **CONCLUSION (10 minutes)**

THE DIGITAL DIVIDE & BENEFITS OF ICT LEARNING

DIGITAL DIVIDE

The digital divide refers to any inequalities between groups, broadly construed, in terms of access to, use of, or knowledge of ICT.

Research suggests a multitude of variables for the digital divide, but mainly:

- **education**
- **income**
- **age**
- **ethnic origin**
- **location, and**
- **gender.**

This means that prototypical ‘victims’ to the digital divide can be foremost characterized as poorer, less educated, and older.

TEACHING ICT TO MATURE LEARNERS

TWO PRACTICAL OBSTACLES

The mouse

Interface between computer and user

ICT tends to be a novel ‘toy’, so tutors must expect that mature/older learners to be:

- **relatively slow**
- **wanting to write all steps down on a notebook**

What we take for-granted represents a mountain of obstacles for most mature/older learners

PEER SUPPORT

Peer support in learning is a well-established general principle, and it is particularly important for mature and older participants learning about computing.

PAIRING

BUDDIES

SPECIFIC STRATEGIES

- **Specific supports for mature and older learners in the early stage of computer courses are important. Otherwise, the dropping rate is high.**
- **Mature and older learners-only classes and peer instructors tend to be most beneficial.**
- **Providing writing materials for taking notes and laminated index cards containing basic computer skills are excellent ideas.**
- **It would be better for mature and older adults to have more time or self-paced practice to master content.**

TEN KEY LEARNING PREFERENCES

- **Mature and older learners are more likely to undertake short non-award vocational courses as their goal is to gain skills rather than qualifications.**
- **Mature and older learners increasingly turn to community training providers for vocational and personal training.**
- **Mature and older learners prefer learning in an informal learning environment, in small classes or groups**
- **Mature and older learners need slower paced, low intensity training and often prefer self-paced learning**

- **Mature and older learners take increasing responsibility for their training and learning.**
- **Mature and older learners are often independent learners - self-directed and with a clear idea of their goals.**
- **Mature and older learners highly value peer support, mentoring and tutoring.**
- **Mature and older learners value and respond to supportive and responsive teachers, tutors and volunteers.**
- **Mature and older learners want clear and explicit instructions, with clear print and web-based resources.**
- **Mature and older learners generally feel more comfortable learning with a similar aged cohort.**

THE GENDER DIVIDE

GENERALLY, OLDER WOMEN:

- **are more rigid, less flexible when facing technological problems because they do not have full control of the machine, the movements of which are obscure;**

- **need a trainer that guides them while men throw themselves into technology with an experimental active attitude; as women fear it, they need a mediated approach;**

GENERALLY, OLDER WOMEN:

- **have a reverent attitude towards the computer, they experiment less as they are afraid of making mistakes, or breaking it;**
- **approach ICT in a systemic manner, trough the trainer and the handbook; it is precise and methodical, aimed at getting instrumental results: they are not interested on how a computer works and how it is made but what they can do, what they can 'build' with it.**

COFFEE/TEA BREAK

ENJOY!

PRESENTATION SKILLS

GENERAL REMARKS

- **Take time upfront to establish audience rapport.**
- **Always speak to the audience and identify yourself when entering the room.**
- **Position yourself close to your audience during interactions.**
- **Expect to take more time in teaching older adults, so you will not be frustrated if the pace is slower.**

PITCH

- Have light on your face and stay out of the shadows to be seen clearly.

- Ask periodically if your audience can hear you. ***A word of caution: Remember that older learners may be embarrassed to admit their difficulty in hearing and feel less confident***.

- Speak slowly and distinctly. Use clear tones in a low-frequency range, that is speak deeper, not louder.

PITCH

- **KISS (Keep it Simple Speaker). Cover only three major points per session.**
- **Repeat, Repeat, Repeat.**
- **State your most important learning points at the beginning and end of a teaching session. Repeating a concept in different ways and through different sensory channels is extremely useful in helping improve the older adult's memory and learning.**

PITCH

- **Arrange information sequentially in a logical progression of learning, from simple or familiar to complex or unfamiliar tasks / information. Do not change the topic abruptly.**

- **Use familiar terms. Avoid complex medical terms, jargon, and acronyms. Use gestures or objects to clarify what you are saying.**

- **Use anecdotes or examples, relevant to learners or use learners' examples to illustrate your points.**

PITCH

- **Stop periodically to ask for questions and/or feedback to check on understanding.**

- **Use a conversational, interactive style. Get out from behind the lectern. Circulate around the room but always face the learners.**

VISUAL AND AUDIO AIDES

- **Since most adults are primarily visual learners, adding visual elements in the classroom like audiovisuals, flip charts, and handouts is key.**

- **A visual aid should be easily seen. We've all been in a presentation where the presenter has apologized for poor slides or overheads. If your audience cannot see or read it, why use it?**

- **Have a magnifying glass or a small flashlight available for use, if needed.**
- **A visual aid helps the learner to “see” the point you are making. Your visual, therefore, should relate to your key points.**
- **Overheads and slides can be used in any sized room since image size can be adjusted by the placement of equipment and adjusting focus.**

- **If you use audiovisual equipment, make sure you continue to face your audience. Do not face the screen. Remember, seeing your face will enhance understanding.**

- **Flip charts and videos should only be used with small groups. For flip charts, use simple block lettering. Thick letters are easier to read.**

- **Black lettering on white background offers the greatest contrast and visibility.**
- **The normal rule of thumb is 5 X 5: no more than 5 lines/words per line should be used.**
- **If there is any way to convey your message with a picture, do it. People retain the ability to recognize complex pictures even as they age.**

- **Provide your audience with handouts of a packet they can keep, along with copies of your visuals and audiovisuals to follow along. Do not frustrate older learners by expecting them to take copious notes or remember your key points.**

- **Make learning fun and interactive. Do not do all the talking.**

EFFECTIVE EDUCATIONAL MATERIALS

- **Use dark print on light backgrounds. Black on white matte, non-glossy paper is best. The greater the colour contrast, the easier it will be for older eyes to read.**
- **When using colours, use autumn colours like brown, orange, and yellow. Avoid violets, blues, and greens, which are more difficult for mature eyes to see.**
- **Use plain, clear typeface that is at least 12- to 14-point type size.**
- **Combine upper and lower case. Avoid all capital letter, italicized and other ornamental print.**

- **Limit the amount of information you provide. The more you give older adults to read, the less likely they are to read it. Use bullets and boxes to highlight key information.**

- **Use familiar organizational formats. Standard paragraphs with headings work well.**

- **In referring to older learners, use terms such as older adults or senior adults. Avoid negative terms that suggest that older persons are afflicted, victims of, or suffering from a chronic illness.**

CONCLUSION