



# Promotion of physical activity for people in third age

## Trainer's handbook (PR2)

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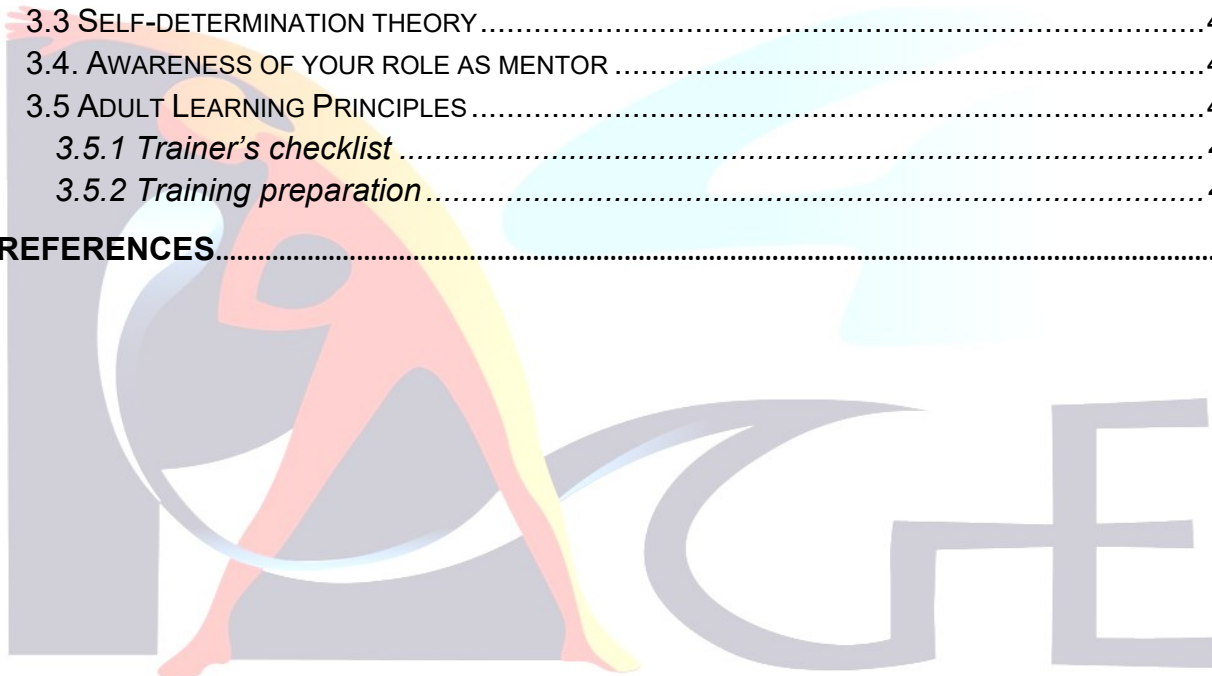


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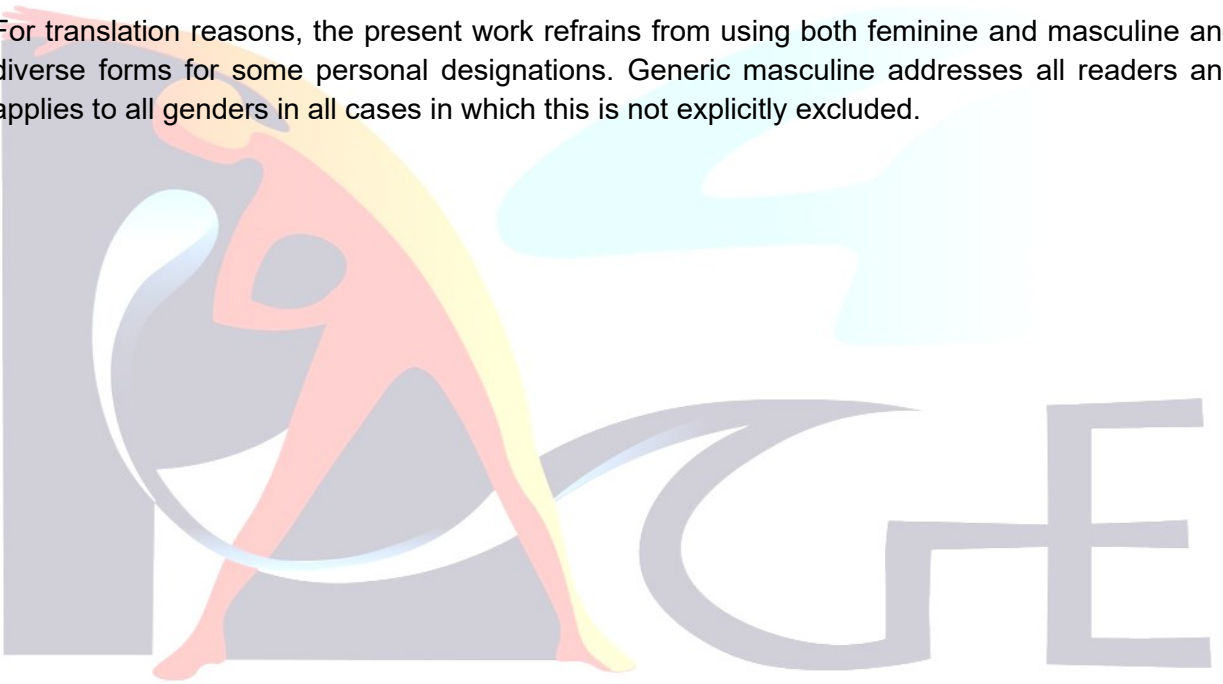
**List of abbreviations**

PA	Physical Activity
VET	Vocational and Educational Training



## Gender note

For translation reasons, the present work refrains from using both feminine and masculine and diverse forms for some personal designations. Generic masculine addresses all readers and applies to all genders in all cases in which this is not explicitly excluded.



# 1 Introduction

PA4AGE is a KA220-ADU – Cooperation partnerships in adult education, Erasmus+<sup>1</sup> project with the participation of five partners:

**UM Westfälische Wilhelms-Universität Münster**<sup>2</sup> (Coordinator) from Munster – Germany, is participating with its Institute of Sport and Exercise Sciences (IfS), (part of Department 07 – Psychology and Sports Sciences).

**FRODIZO**<sup>3</sup> from Patras – Greece, is a nongovernmental, nonprofit organization for the provision of mental, psychological and physical support to older and disabled people in order for them to retain their maximum level of autonomy and well-being.

**ISRAA**<sup>4</sup> from Treviso – Italy, is an Italian public senior care provider based in Treviso. 700 employees: 70 nurses, 350 carers, 15 psychologists, 17 physical rehabilitation trainers, 12 GPs, 21 care managers.

**PIKEI**<sup>5</sup> from Patras – Greece, is a software company actively located in Patras, Greece. The company is active in cutting edge ICT technologies including IoT, cloud services and blockchain-enabled applications.

**EGRAPA**<sup>6</sup> from Cologne – Germany, was born from the premise that the field of "Physical Activity and health for the older generation" is an interdisciplinary field of study which involves professionals and researchers from very diverse areas.

PA4AGE<sup>7</sup> has as general objective the promotion of physical activity, as one of the most important components in the notion of active ageing, aiming to change older people's mindset, by encouraging their participation to physical activity at any form and intensity, and under any physical condition, for improving their quality of life in physical, mental and social terms. The project's specific objective is the education and training of adults from various professional profiles, having relation to promotion of active ageing or social and health care of older people, to act as promoters of physical activity to people in third age.

To achieve these objectives, PA4AGE focuses on the development of interactive and low-threshold training material for:

- Providing adult learners with new skills and new interventions in a sector that presents many opportunities and is progressing rapidly due to demographic ageing.
- Changing the mind set of older people regarding the benefits and necessity of being engaged into physical activity sessions, through the emphasis on positive physical activity behaviors and through decomposing barriers and negative attitudes about physical activity.
- Battling still existing misconceptions about ageing, focusing on biological decline and by overlooking actions that promote a better quality of life.

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<sup>1</sup> <https://erasmus-plus.ec.europa.eu/>

<sup>2</sup> <https://www.uni-muenster.de/en/>

<sup>3</sup> <https://frodizo.gr/en/home/>

<sup>4</sup> <https://www.israa.it/hh/index.php>

<sup>5</sup> <https://pikei.io/>

<sup>6</sup> <https://www.egrapa.org/>

<sup>7</sup> <https://pa4age-project.eu>



- Using physical activity as a social cohesion tool, which can be used by any individual, regardless of physical abilities, personal needs, resources and shortcomings.

## 1.1 The scope of this handbook

The main purpose of this handbook is twofold:

- On the one side to familiarize trainers and instructors in adult education institutions around physical activity in third age, to the PA4AGE platform and its different applications, and provide them specific information on how to use the platform at the most efficient way, (for example how to deliver the training content).

Trainers learn the principles of adult education and how to use them. They learn how to create a positive and productive learning environment for training adults, how to organize the training sessions, monitor the progress, establish and keep communication with learners, give constructive feedback, and identify potential challenges to delivering effective training.

- On the other side to provide the opportunity to various potential facilitators and mediators (physical educators in gyms or other community or private facilities, coaches in clubs having older adults sections, social and health care workers, practitioners, formal and informal caregivers) to use the platform in their spare time in order to learn and use basic principles and methods for raising the awareness and educating older people about components and applications of physical activity in third age.

In general, the development of the PA4AGE platform considered the different needs of the project's target groups:

### 1. Direct target group:

Adults from various professional profiles (direct target group) around the promotion of active ageing for older people as it is:

- (i) Physical educators working in gyms, active ageing organizations, physical activity clubs;
- (ii) Other social and health care related professionals (clinicians, social workers, physiotherapists, nurses);
- (iii) Physical activity, culture organization members;
- (iv) Tourism and recreational organizations and facilities - Adult and VET providers.

### 2. Indirect target group:

People in third age and their caregivers, providing a user friendly, not demanding in terms of prior knowledge deposit, adjustable and low-threshold training content.

Furthermore, the training platform is presented through a multimodal approach, since the needs and requirements of older people are totally versatile and depend on numerous individual, social and environmental factors.

All information and training guidance provided in this handbook, for both adult trainers and caregivers, is accompanied by the explanations of basic didactic principles for more effective and customized delivery of the training content.

## 1.2 The role of the PA4AGE on-line platform

Erasmus plus projects, as one of their priorities, favor and encourage the delivery of training material through open e-learning platforms. The benefits are obvious since – as in PA4AGE – educational issues refer to wide audiences from different countries, who despite belonging to certain target groups, have different requirements and needs.

### 1. Flexibility

Online training courses can be taken at any time convenient for the learner. The only requirement is an internet connection. This flexibility is very important especially for PA4AGE target groups who usually are people aggravated with their caregiving tasks and with little free time.

### 2. Accessibility

Avoiding transportation to and from the classroom is beneficial in terms of time, tiredness and expenses. Furthermore, the training material itself is getting much more accessible through downloadable online notes, online interaction, training videos that can be replayed, and assessments/quizzes that can be taken anytime during the course helping participants to learn better and faster.

### 3. Communication

Participating in online courses gives the opportunity to learners to interact with different people that have the same interests or the same learning goals exchanging questions, doubts, and ideas.

### 4. Support

Online course trainers can be emailed and interacted with when students have any questions, so in many cases the solution to a possible question or trouble may come much faster than in the traditional face to face courses.

### 5. Online access

Online assessments give the luxury to evaluate their understanding of a given subject without the pressure of taking an actual exam. Some assessments can also be retaken and reconsidered if students are not satisfied with their scores.

Nevertheless, it is vital for the projects and for the instructors to preserve the biggest possible and most efficient interaction between the mentors-trainers and the learners.

Any form of interaction within the e-learning platform (learners interacting with the content, learners interacting with the instructor, and learners interacting with each other), require the support and surveillance of the instructor.

### 1.3 Technical and functional specifications of the platform

The e-learning platform is public and can be found at the web address <https://moodle.pa4age-project.eu>.

The platform was developed based on the free and open-source learning management system Moodle<sup>8</sup> (version 4.0.1), which is written in PHP and is distributed under the GNU General Public License<sup>9</sup>. The platform follows a plain, friendly and easy-to-use design with eye-relaxing colours.

The e-learning platform is compatible with the most used – popular browsers, like Chrome<sup>10</sup>, Firefox<sup>11</sup>, Microsoft Edge<sup>12</sup>, and Safari<sup>13</sup>. The e-learning platform works in Windows<sup>14</sup>, Linux<sup>15</sup>, and iOS<sup>16</sup> software environments. The user is advised to use the latest (updated) version of the browser and software environment so for the most comfortable experience of the Moodle platform.

The e-learning platform is open to anyone to use under the CC BY-NC-SA 4.0 license<sup>17</sup>. However, account creation – user registration is necessary in case the user desires to keep history track of the learning effort. In that case, if the user completes successfully the course, a certification of attendance is provided, which premises an adequate success rate of the Quiz Sections and the Interactive Tasks. A non-registered user has access to the entire course content, except the Quiz Sections and the Interactive Tasks.

More details, other information and functional specifications of the platform are described in the next Sections.

#### 1.3.1 Course time length and characteristics

The overall time length of the course is estimated to be six (6) hours. The time length and other characteristics of each section are presented in Table 1.

The course is offered in four languages, English, German, Italian, and Greek (see Sections 1.3.4-5 for more information on this topic). The default language of the platform is English.

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<sup>8</sup> <https://moodle.com/>

<sup>9</sup> <https://moodle.org/>

<sup>10</sup> <https://www.google.com/chrome/>

<sup>11</sup> <https://www.mozilla.org/en-US/firefox/>

<sup>12</sup> <https://www.microsoft.com/en-us/edge/>

<sup>13</sup> <https://www.apple.com/safari/>

<sup>14</sup> <https://www.microsoft.com/en-us/windows>

<sup>15</sup> <https://www.linux.org/>

<sup>16</sup> <https://www.apple.com/ios/>

<sup>17</sup> <https://creativecommons.org/licenses/by-nc-sa/4.0/>

**Table 1** Time length and specific characteristics (additional material/links/etc., assessment content, optoacoustic material) of each section.

Section name	Time length (hours)	Additional material, links etc.	Assessment content	Optoacoustic material
A. General framework for the promotion of physical activity in older age	01:50	X	X	–
B. Basic concepts of physical activity and motivation	01:00	X	X	–
C. How to change behavior and start be active	00:45	–	X	X
D. Recommendations and guidelines for exercise and physical activity	00:55	X	X	X
E. Interactive part	01:20	–	X	–
F. Appendix	00:10	–	–	–

### 1.3.2 Moodle account details: How to create account

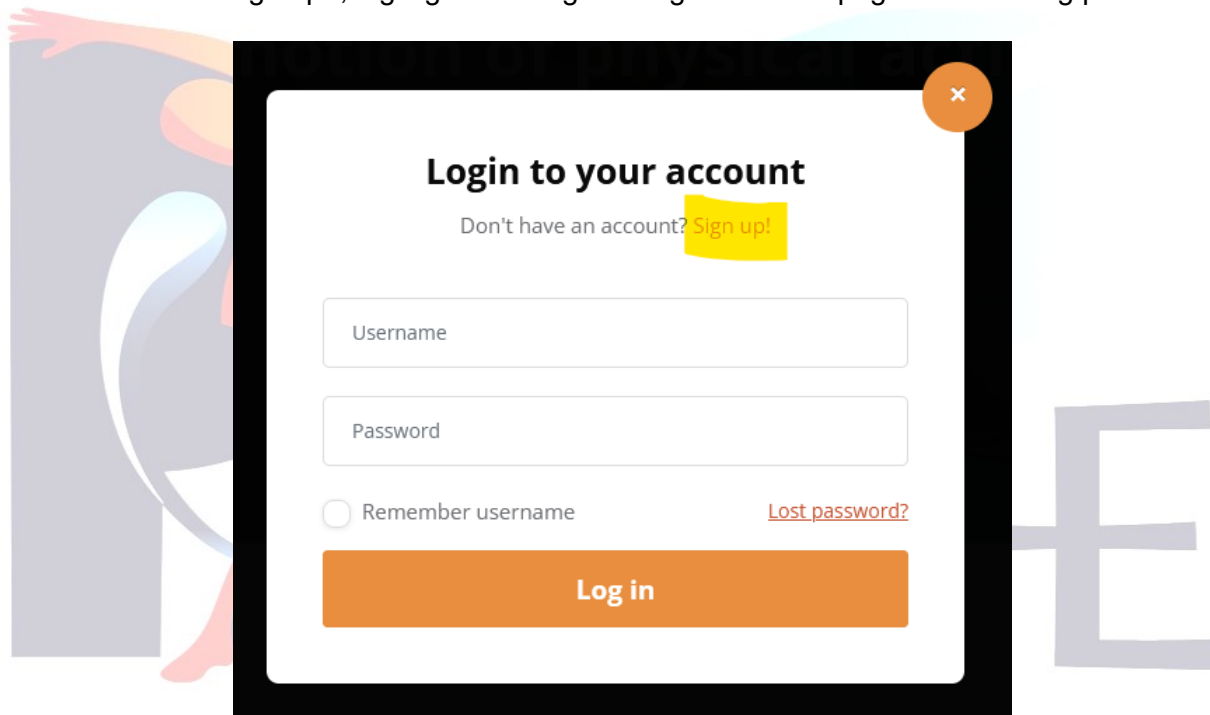
#### *How to create account*

For creating an account, the user has to visit the platform website <https://moodle.pa4age-project.eu>, and clicks on the upper-left side of the webpage named “Login/Register”, highlighted in Figure 1.



**Figure 1** Initial page of e-learning platform. The Login/Register 'button' is highlighted with yellow colour.

The user then is transferred to the 'Login/Sign up' window. For creating an account (signing up) the user selects "Sign up!", highlighted in Figure 2



**Figure 2** The Login/Sign up window. The Sign up 'button' is highlighted with yellow colour.

The user then is transferred to the 'New account' window (Figure 3). For creating a new account (signing up) the user should fill in all the following fields – proceed to the following steps:

- Username\*: The user types here a username that would like to use on the platform.
- Password\*: The user enters here a password for the account under creation. The password should be strong enough for security reasons. As described in the window, the password must have at least eight (8) characters, at least one (1) digit(s), at least one (1) lower case letter(s), at least one (1) upper case letter(s), at least one (1) special character(s) such as \*, -, or #. The lower- and upper-case letters must be latin characters.

- Email address\*: The user types here an email address of its own that would like to use on the platform.
- Email (again)\*: The user re-types here the email address of its own provided in the previous field. If the two email addresses provided are different, then the account creation cannot be completed, and an error message might show up.
- First name\*: The user types here the first name.
- Surname\*: The user enters here the surname.
- City/town: The user enters here the city or town of residence.
- Country: The user enters here the country of residence.
- Security question\*: The user clicks on the square on the left side of the phrase “I’m not a robot” and follows the instructions provided in English on the screen. The procedure here is the typical reCAPTCHA<sup>18</sup> procedure often used to protect the websites from fraud and abuse.
- Understand and agree on the site policy\*: The user is asked here to verify that understands and agrees on the site policy. For reading the site policy the user clicks on the “Link to site policy agreement” text, which will open the site policy<sup>19</sup> in a new tab of the browser.

All fields mentioned above with \* (or marked with ! in Figure 3) are necessary for the new account creation.


After filling in at least all the necessary fields the user must click on the “Create my new account” button.

The user is directed then to the confirmation page, while an email should have been received in the email address that has been used for the new account creation (Figure 4). The user should also check the “Trash/Bin” folder of the email address used for the new account creation as the email provider might include the received email in this folder and not in the “Inbox” one.

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<sup>18</sup> <https://www.google.com/recaptcha/about/>

<sup>19</sup> <https://pa4age-project.eu/en/platform/consent.html>



## New account

Have an account? [Login](#)

Username !

The password must have at least 8 characters, at least 1 digit(s), at least 1 lower case letter(s), at least 1 upper case letter(s), at least 1 special character(s) such as as \*, -, or #

Password !

Email address !

Email (again) !

First name !


Surname !

City/town

Country

Security question ?

I'm not a robot
 


  
reCAPTCHA  
Privacy - Terms

**Site policy agreement**

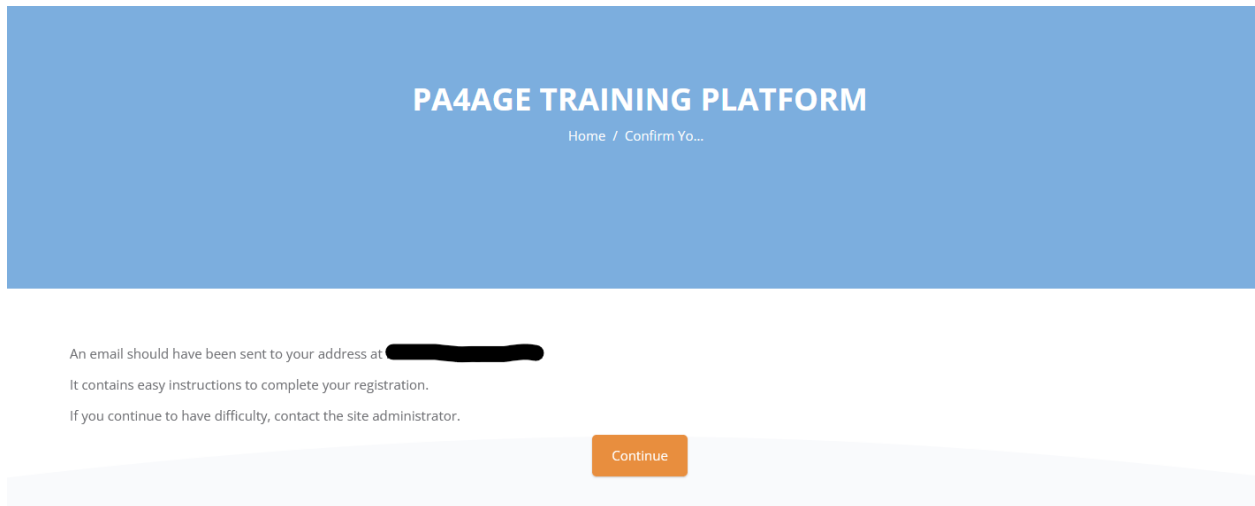
[Link to site policy agreement](#)

I understand and agree !

---

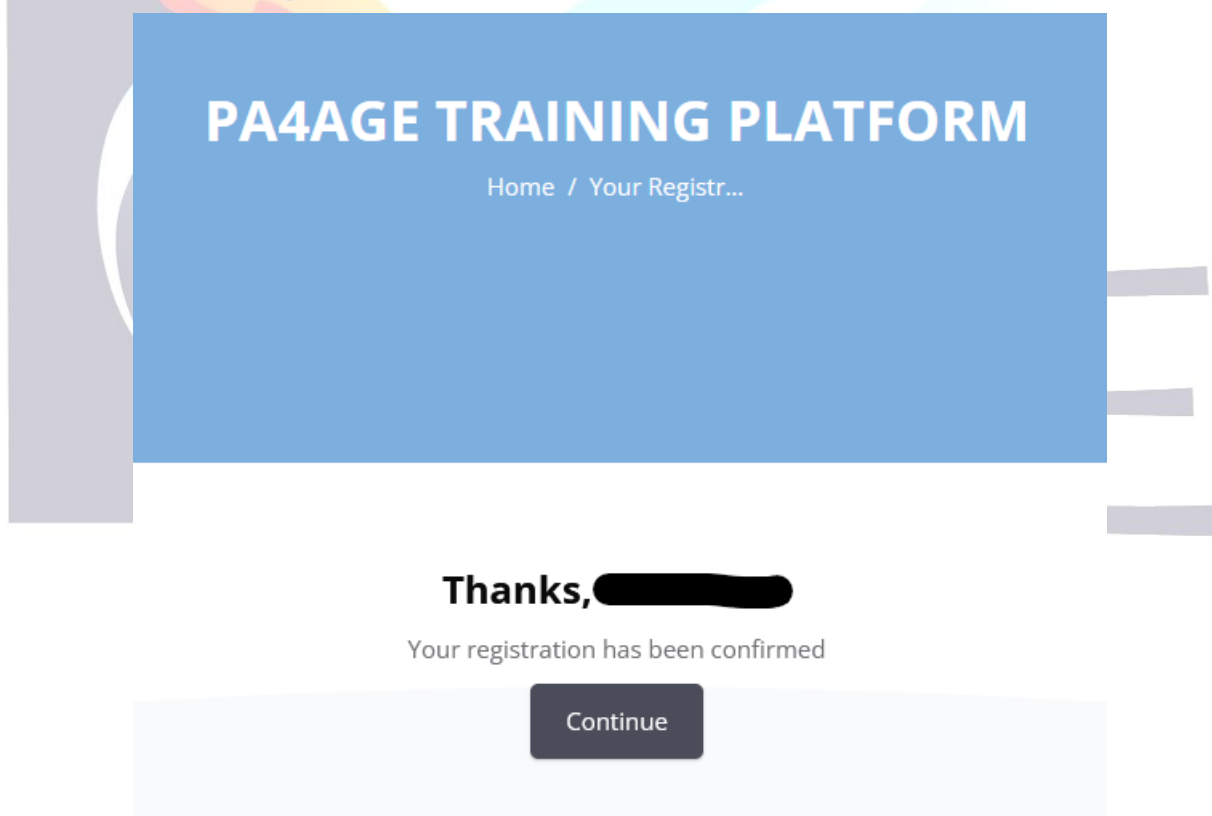
There are required fields in this form marked !.

**Figure 3** The New account window. All fields marked with ! are necessary for the new account creation.



**Figure 4** The intermediate window for the new account creation.

The received email subject is “PA4AGE training platform: account confirmation” and includes a web address – link that should be clicked to finish the new account creation (Figure 5). By clicking on “Continue” button the user is transferred to the initial page of the e-learning platform.



**Figure 5** The window of the confirmed registration – new account creation.

This time, however, the user is logged-in and can start navigating and/or using the platform (see also Section 1.3.3 Moodle account details: How to login/logout).



### 1.3.3 Moodle account details: How to login/logout

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#### How to login

---

To login to the e-learning platform the user has to visit the platform website <https://moodle.pa4age-project.eu>, and clicks on the upper-left side of the webpage named “Login/Register”, highlighted in Figure 1 Initial page of e-learning platform. The user then is transferred to the ‘Login/Sign up” window. For logging in the user types in the window fields (Figure 2 The Login/Sign up window. The Sign up ‘button’ is highlighted with yellow colour.) the username and the password used for the new account creation – registration procedure (see Section

1.3.2 Moodle account details: How to create account) and clicks on the “Log in” button (Figure 1 Initial page of e-learning platform). Then the user is transferred to the initial page of the e-learning platform and can start navigating and/or using it.

When the user is logged in, then at the upper-right side of the webpage appear five (5) icons (Figure 6) (see Section 1.3.3 Moodle account details: How to login/logout for more information).



**Figure 6** The icons that appear on the upper-right side of the webpage of the e-learning platform when the user is logged in.

*Note: For the platform usage policy, on which the user should agree, you can visit Section 1.3.7 Moodle platform usage policy.*

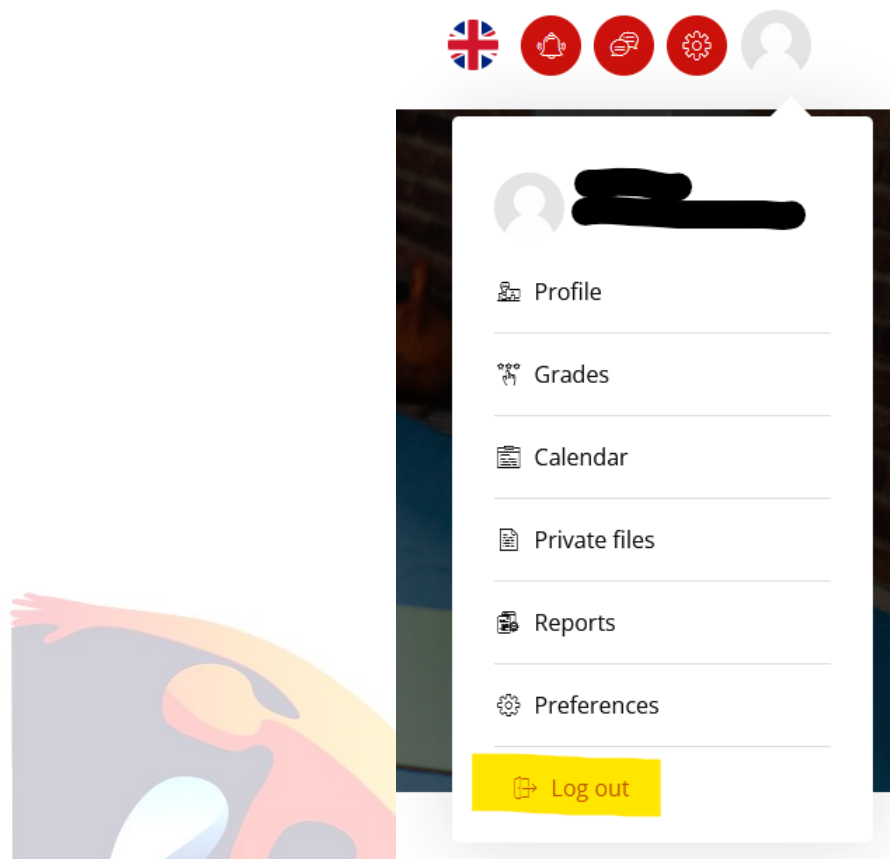
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#### How to logout

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To logout from the e-learning platform the user visits the upper-right side of the webpage and selects the last icon of the five that appear there (the one at the right side) (Figure 6 The icons that appear on the upper-right side of the webpage of the e-learning platform when the user is logged in.) (see also Section 1.3.4 Moodle account details for more information).

A new drop-down menu appears then and the user selects the last option included in this menu, the Log out ‘button’, highlighted in Figure 7.



**Figure 7** The menu that shows up when the user icon is selected. The Log out 'button' is highlighted with yellow colour.

#### 1.3.4 Moodle account details: Registered user profile, preferences etc.

A registered user can inspect and edit the profile details and the preferences settings by selecting the corresponding 'buttons' displayed in the user icon drop-down menu (Figure 7).

The progress of a registered user can be tracked by clicking on the My Courses 'button' on the top left of the page (Figure 8) or by selecting the 'buttons' with related description displayed in the user icon drop-down menu (Figure 7).

A registered user can also choose the language of the platform (default language: English) by clicking on the flag, located at the right corner of the platform, when logged in (Figure 6 and Figure 7). Although this feature is not offered to a non-registered user, the platform is designed so to provide the course content in the corresponding language when the user (registered or not) selects the course version offered in a language other than English, that is German, Italian or Greek.



**Figure 8** The menu on top left side of the platform, when a registered user has logged in.

### 1.3.5 Moodle navigation details: How to navigate

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*Choose the course language version*

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The navigation inside the course is possible via multiple options (see also Section 1.3.6 Moodle navigation details: Other functionalities).

#### Option 1

The user can choose the course version in one of the offered languages, English, German, Italian, and Greek, by clicking the corresponding 'blue button' at the middle of the initial page of the platform (Figure 9). Then the user is transferred to the initial page of the course version in the selected language.



**Figure 9** The menu with the course version in the four supported languages, English, German, Italian, and Greek.

#### Option 2

The user can click on the Courses 'button' on the top left side of the page -this is possible irrespective of the internal page of the platform that the user is currently viewing- (Figure 1). In that, the user is transferred to a page where the versions of the course together with the course description appear in the offered languages, English, German, Italian, and Greek (Figure 10). Icons that include language flags are also displayed on the left side of each course language course version to facilitate the user.

For visiting the course version in the desired language, the user can click on the corresponding icon or on the title of the course displayed in the four supported languages, English, German, Italian, and Greek, or can select the desired version in the highlighted area in Figure 10.



### Interactive Learning Environment

**PA4Age-project** aims to the promotion of physical activity, as one of the most important components in the notion of active ageing, aiming to change older people's mindset by encouraging their participation to physical activity in any form and intensity, and under any physical condition, to improve their quality of life in physical, mental and social terms.

To achieve this objective the project aims to the education and training of:

1. Direct target group: Adults from various professional profiles, having relation to promotion of active ageing or social and health care of older people, to act as promoters of physical activity to older people population as it is:

- (i) Physical educators working in gyms, active ageing organizations, physical activity clubs
- (ii) Other social and health care related professionals (clinicians, social workers, physiotherapists, nurses)
- (iii) Physical activity, culture organization members – tourism and recreational organizations and facilities
- (iv) Adult and VET educators

2. Indirect target group: People in third age and their caregivers (irrelevantly of their health status and level of autonomy), that need to know more about including physical activity, into their daily routine, or need a motivation to abandon their passive or sedentary lifestyles.

6 Courses



### Interaktive Lernumgebung

Das **PA4Age-Projekt** hat sich zum Ziel gesetzt, die körperliche Aktivität als eine der wichtigsten Komponenten des Konzepts des aktiven Alterns zu fördern. Es zielt darauf ab, die Einstellung älterer Menschen zu ändern, indem es sie zur Teilnahme an körperlicher Aktivität in jeder Form und Intensität und unter jeder körperlichen Bedingung ermutigt, um ihre Lebensqualität in körperlicher, geistiger und sozialer Hinsicht zu verbessern. Um dieses Ziel zu erreichen, beabsichtigt das Projekt die Ausbildung und Schulung von:

1. Einer direkten Zielgruppe: Erwachsene aus verschiedenen Berufsprofilen, die mit der Förderung des aktiven Alterns oder der Sozial- und Gesundheitsfürsorge für ältere Menschen zu tun haben und als Unterstützer für körperliche Aktivität in der älteren Bevölkerung fungieren:

- (i) Sportfachkräfte, die in Fitnessstudios, Organisationen im Bereich des aktiven Alterns und in Sportvereinen arbeiten
- (ii) Fachleute aus dem Sozial- und Gesundheitswesen (z.B. Sozialarbeiter, Physiotherapeuten, Krankenschwestern)
- (iii) Mitglieder von Bewegungs- und Kulturorganisationen sowie Tourismus- und Freizeitverbänden und -einrichtungen
- (iv) Pädagogen in der Erwachsenen- und Berufsbildung

2. Einer indirekten Zielgruppe: Menschen im dritten Lebensalter (unabhängig von ihrem Gesundheitszustand und ihrem Grad an Selbstständigkeit) und ihre Betreuer, die mehr darüber erfahren möchten, wie sie körperliche Aktivität in ihren Tagesablauf integrieren können oder die motiviert werden sollen, ihren passiven oder sitzenden Lebensstil zu verändern.

6 Courses



### Area Interattiva di Apprendimento

Il **progetto-PA4Age** mira alla promozione dell'attività fisica, come una delle componenti più importanti del concetto di invecchiamento attivo, con l'obiettivo di cambiare l'atteggiamento delle persone anziane incoraggiando la loro partecipazione all'attività fisica in qualsiasi forma e intensità, e in qualsiasi condizione fisica, per migliorare la loro qualità di vita in termini fisici, mentali e sociali.

Per raggiungere questo obiettivo il progetto mira all'educazione e alla formazione di:

1. Gruppo target diretto: vari profili professionali, in relazione alla promozione dell'invecchiamento attivo o all'assistenza sociale e sanitaria degli anziani, per agire come promotori dell'attività fisica presso la popolazione anziana:

- (i) Educatori dell'attività motoria che lavorano in palestre, organizzazioni per l'invecchiamento attivo, club di attività motoria
- (ii) Altri professionisti dell'assistenza sociale e sanitaria (medici, assistenti sociali, fisioterapisti, infermieri)
- (iii) Membri di organizzazioni di attività fisica - organizzazioni e strutture turistiche e ricreative
- (iv) Trainer e professionisti della cura psico-fisica dell'anziano

2. Gruppo target indiretto: Persone anziane e coloro che se ne prendono cura (indipendentemente dal loro stato di salute e dal livello di autonomia), che hanno bisogno di saperne di più sull'inclusione dell'attività fisica nella loro routine quotidiana, o che hanno bisogno di una motivazione per abbandonare il loro stile di vita passivo o sedentario.

6 Courses



### Διαδραστικό Μαθησιακό Περιβάλλον

Το **PA4Age-έργο** στοχεύει στην προώθηση της φυσικής δραστηριότητας, ως ένα από τα πιο σημαντικά στοιχεία της έννοιας της ενεργούς γήρανσης, με στόχο να αλλάξει τη νοοτροπία των ηλικιωμένων ενθαρρύνοντας τη συμμετοχή τους στη σωματική δραστηριότητα σε οποιαδήποτε μορφή και ένταση, και υπό οποιαδήποτε φυσική κατάσταση ώστε να βελτιώσουν την ποιότητα ζωής τους από σωματική, ψυχική και κοινωνική άποψη.

Για την επίτευξη αυτού του στόχου το έργο στοχεύει στην εκπαίδευση και κατάρτιση των ακόλουθων ομάδων:

1. Άμεση ομάδα στόχος: Ενήλικες από διάφορα επαγγελματικά προφίλ, που σχετίζονται με την προώθηση της ενεργού γήρανσης ή την κοινωνική και υγειονομική περιβαλψη των ηλικιωμένων, με σκοπό να ενεργούν ως υποκινητές της φυσικής δραστηριότητας στον πληθυσμό των ηλικιωμένων, όπως:

- (i) Παιδαγωγοί φυσικής αγωγής που εργάζονται σε γυμναστήρια, οργανώσεις ενεργού γήρανσης, σωματεία φυσικής δραστηριότητας
- (ii) Άλλοι επαγγελματίες που σχετίζονται με την κοινωνική και υγειονομική περιβαλψη (ιατροί, κοινωνικοί λειτουργοί, φυσιοθεραπευτές, νοσηλεύτες)
- (iii) Μέλη οργανισμών σχετικών με τη φυσική δραστηριότητα, τον πολιτισμό - τουριστικοί και ψυχαγωγικοί οργανισμοί και εγκαταστάσεις
- (iv) Εκπαιδευτές ενηλίκων και κατάρτισης επαγγελματιών

2. Έμμεση ομάδα στόχος: Άτομα στην τρίτη ηλικία και οι φροντιστές τους (ανεξάρτητα από την κατάσταση της υγείας τους και το επίπεδο αυτονομίας τους), που πρέπει να γνωρίζουν περισσότερα σχετικά με τη συμπεριληψη της φυσικής δραστηριότητας στην καθημερινή τους ρουτίνα ή χρειάζονται κίνητρο για να εγκαταλείψουν τον παθητικό ή καθιστικό τρόπο ζωής τους.

6 Courses

**Figure 10** The page that displays the course versions together with the course description in the supported languages, English, German, Italian, and Greek. The icons on the left side include also language flags for more clearness. The highlighted area indicates another area where the course language selection is possible.

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## How to navigate inside the selected course version – language

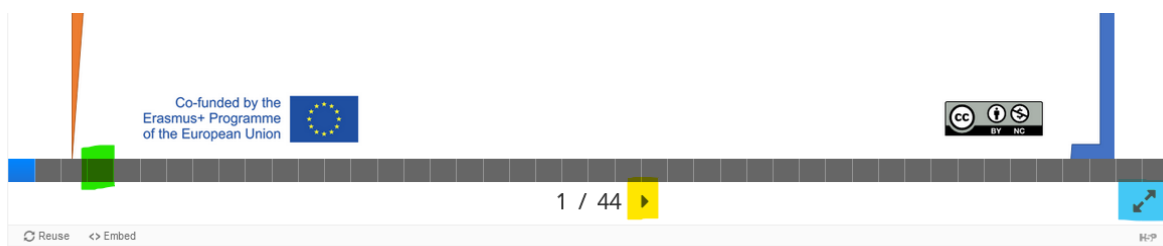
---

The navigation inside the selected course version – language is easy and smooth.

### How to change slides – “full screen” mode

For moving to the next slide inside a specific lesson the user can use the black arrow below the slides (Figure 11). By selecting a specific ‘black box’ below the user can move to any of the lesson’s slides (Figure 11).

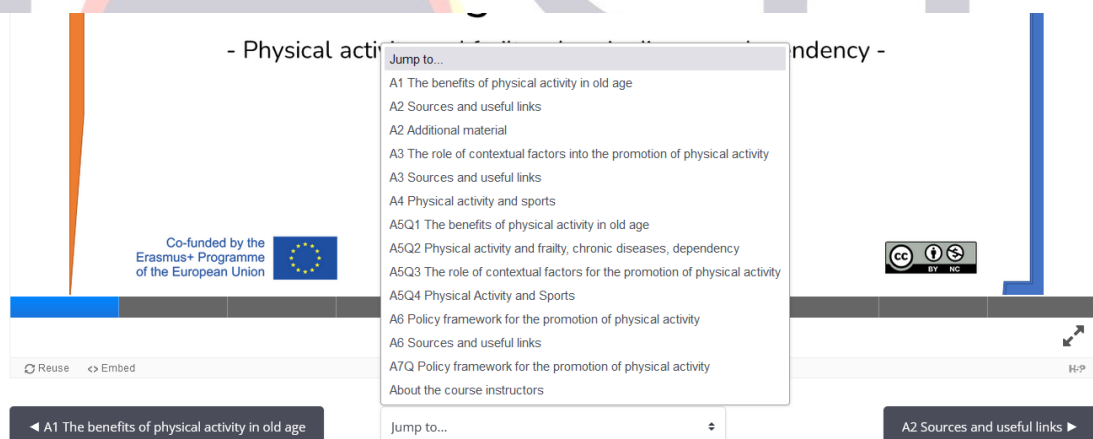
The user can go to the “full screen” mode by clicking on the two diagonal arrows at the bottom right of the slides (Figure 11).



**Figure 11** The menu offered below the slides of each lesson. Highlighted in yellow: go to the next slide; Highlighted in green: go to any of the included slides; Highlighted in cyan: go to “full screen” mode.

### How to move other lessons/parts available in the selected course Section – Lecture

The user can navigate inside the selected course Section – Lecture via the Jump to ‘button’ available below the content currently viewing, e.g., slides, additional material, quiz, etc. (Figure 12). For moving to the next or the previous content of the currently viewing one the user can use the dark grey boxes with related arrows on the right and the left side of the Jump to ‘button’ (Figure 12). The drop-up/down menu of the Jump to ‘button’ and the dark grey box(es) display also the titles of the available content.









**Figure 12** The menu offered below the content currently viewing (slides, additional material, quiz, etc.). The Jump to ‘button’ and the dark grey box(es) allow for navigation to other lessons/parts available inside the selected course Section.

## How to move other Section – Lecture of the selected course version – language

The user can move to any other Section – Lecture of the selected course version – language by clicking on the desired Section – Lecture ‘boxes’ (Figure 13). The Section – Lecture ‘boxes’ can be found below any lesson/part currently viewing.

### PA4Age Interactive Learning Environment: Available Lectures

 <p><b>A</b> General framework for the promotion of physical activity in older age ☆☆☆☆☆ (0) 12 8 <b>FREE</b></p>	 <p><b>B</b> Basic concepts of physical activity and motivation ★★★★★ (1) 5 7 <b>FREE</b></p>	 <p><b>C</b> How to change behaviour and start be active ★★★★★ (1) 5 6 <b>FREE</b></p>
 <p><b>D</b> Recommendations and guidelines for exercise and physical activity ★★★★★ (1) 4 6 <b>FREE</b></p>	 <p><b>E</b> Interactive ★★★★★ (1) 9 6 <b>FREE</b></p>	 <p><b>F</b> Appendix ★★★★☆☆ (2) 7 2 <b>FREE</b></p>

**Figure 13** The Section – Lecture ‘boxes’, available below any lesson/part currently viewing, offer navigation to the Sections – Lectures of the selected course version – language.

## How to navigate inside the Quiz Section(s) – Interactive Parts

### Why to “Enrol” in a Section – Lecture?

As described in the beginning of Section 1.3, the Quiz Section(s) – Interactive Part(s) are available only for registered users. When a registered user “Enrols” in one of the six Sections – Lectures of the selected course version – language, then the user can access the Quiz Section(s) – Interactive Parts included in the Section – Lecture enrolled. The Sections – Lectures containing Quiz Section(s) – Interactive Parts are explained in Table 1 (Section 01.3.1 Course time length and characteristics).

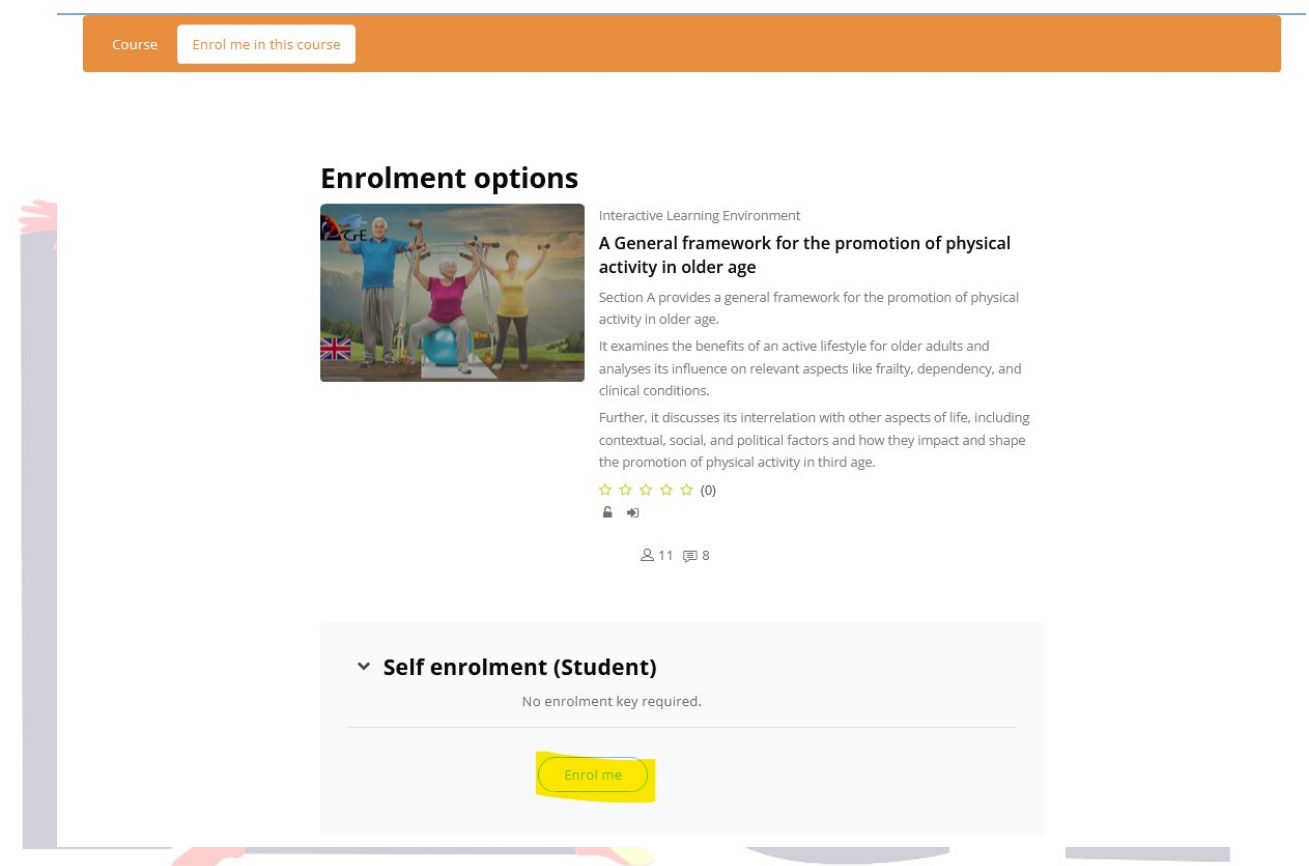
### How to “Enrol” in a Section – Lecture

Enrolment in course is offered via the following options: by clicking on the Enrol me in this course ‘button’ found either on the top left or right of the viewing Section – Lecture (Figure 14). The last one (the top right) is visible after clicking on the gear-like ‘button’ (Figure 14).



**Figure 14** The “Enrol me in this course” options offered in the Sections – Lectures of a selected course version – language.

By clicking on one of these buttons the user is transferred to a new window, where is asked to confirm the enrolment in the selected Section – Lecture by selecting the Enrol me ‘button’ (Figure 15).



**Figure 15** The “Self enrolment” window. For confirming the enrolment, the user clicks on the box highlighted in yellow.

### How the Quiz Sections – Interactive Parts work

A Quiz Section – Interactive Part may include more than one question – task, which are displayed after selecting the desired Quiz Section – Interactive Part (Figure 16). When the user selects one of the available answers, it is possible to change the answer by using the Clear my choice ‘button’ (Figure 17). After answering the included question(s) or completing the available task(s), the user selects the Finish attempt ‘button’ found below and at the right side of the last question – task (Figure 16) to continue to the submission of the answer(s).

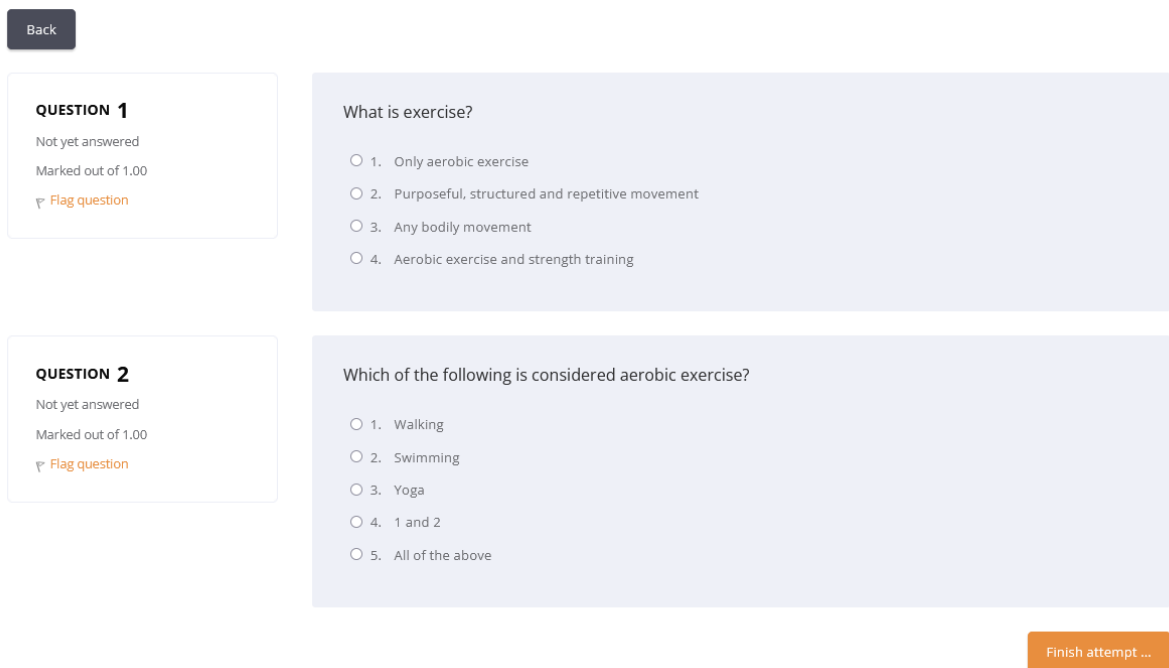


Figure 16 Example of Quiz Section that includes two questions.

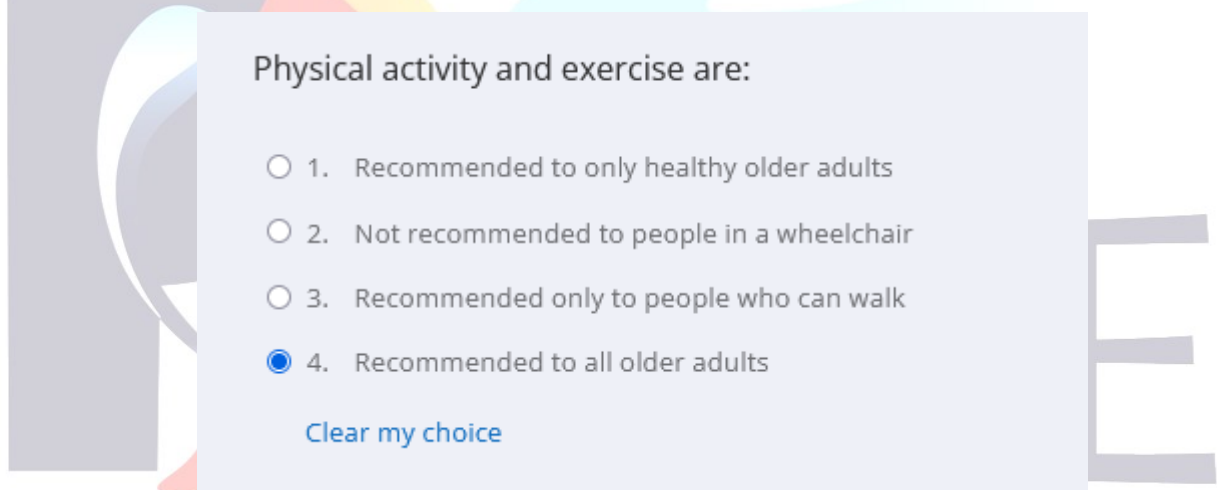
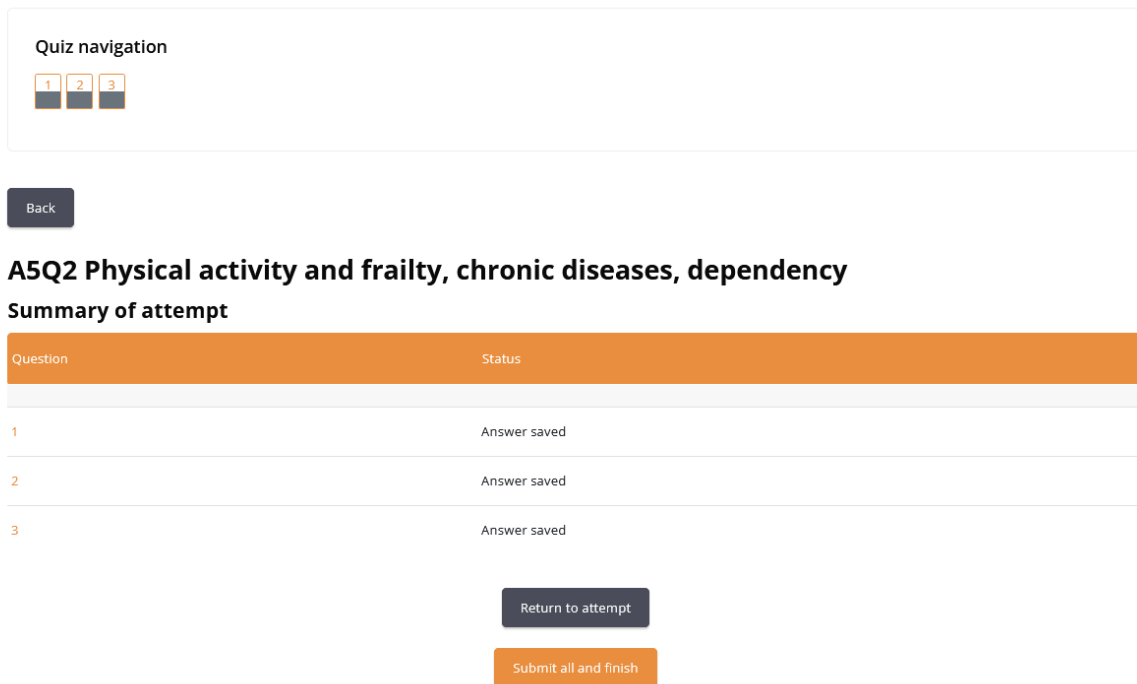


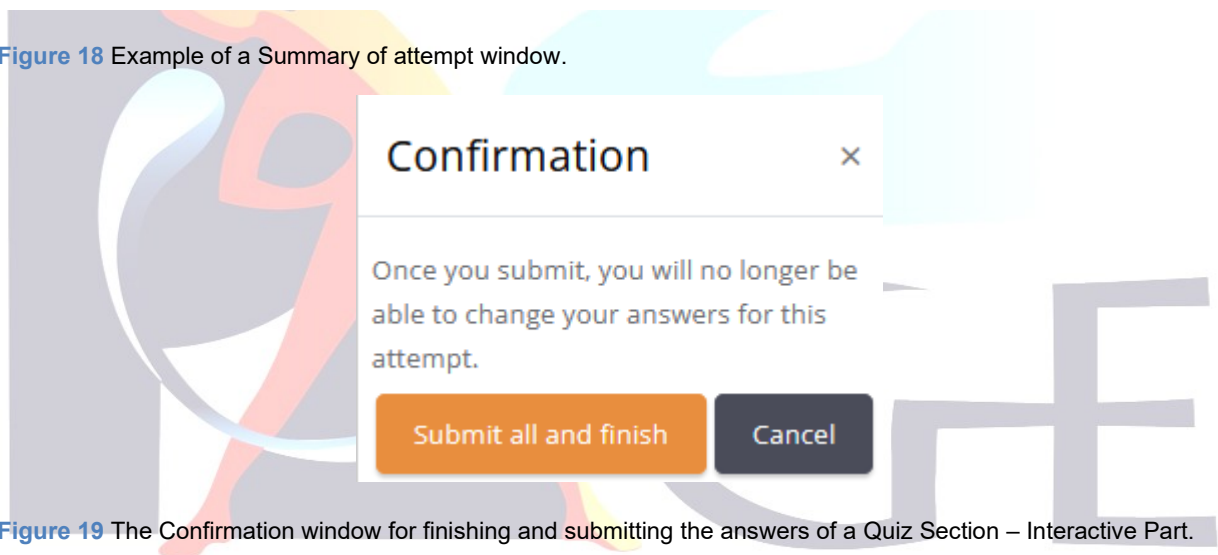
Figure 17 The Clear my choice 'button' is displayed after the selection of an answer.

After finishing the attempt, the user is transferred to a window that summarizes the attempts of the specific Quiz Section – Interactive Part (Figure 18). If the user desires to change an answer or has forgotten to answer a question – complete a task, then can go back either by the Back 'button' or by the Return to attempt 'button', found on the top left or below the Summary of attempt window (Figure 18). The user can easily return to a specific question – task by using the Quiz navigation menu, available above, on the top left side of the Summary of attempt window (Figure 18). The user can submit the answer(s) by clicking the last button located below Summary of attempt window, the one named "Submit and finish" (Figure 18). The user submits the answer(s) by selecting the Submit all and finish 'button' in the Confirmation window (Figure 19).





**Figure 18** Example of a Summary of attempt window.



**Figure 19** The Confirmation window for finishing and submitting the answers of a Quiz Section – Interactive Part.

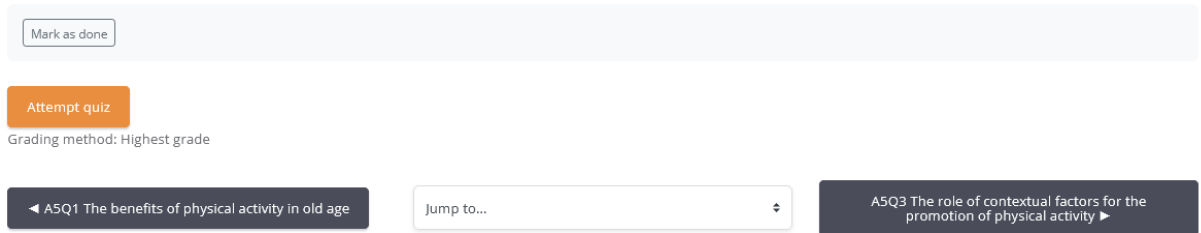
The above procedure allows the user to check multiple times the answers before submitting them. Additionally, protects the users from not finishing an attempt accidentally when e.g., one or more questions – tasks have not been answered – completed.

In case the user hasn't finished a specific Quiz Section – Interactive Part, then the user can continue the previous attempt (Figure 20).

The user is also allowed to re-attempt a specific Quiz Section – Interactive Part (Figure 21).



**Figure 20** The (registered) user is allowed to continue a previous attempt, when this has not been finished so far.

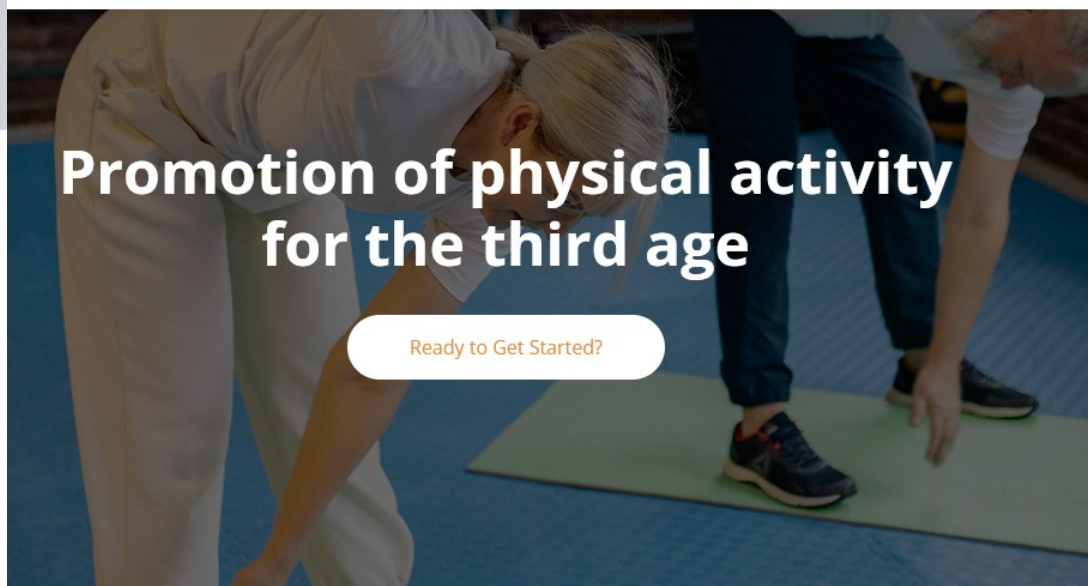


**Figure 21** The (registered) user can go for a re-attempt to a Quiz Section – Interactive Part.

### 1.3.6 Moodle navigation details: Other functionalities

#### The Get Started 'button'

If the user clicks on the Get Started 'button' (Figure 22), available on the initial platform, the user is transferred to a page where the versions of the course together with the course description appear in the offered languages, English, German, Italian, and Greek (Figure 10) (see details in Section 1.3.5 Moodle navigation details: How to navigate).



**Figure 22** The Get Started 'button' displayed on the initial platform page.

## The PA4AGE logo

By clicking on the PA4AGE logo, displayed always on the top-left side of the platform (Figure 1), the user is transferred to the initial page of the platform.

## The page path display

The user can also navigate inside a course version – language by clicking on a specific part of the page path, available on the top of the currently viewing page. This option is offered when the user is already viewing/navigating in any of the pages of a specific course version – language (Figure 23).



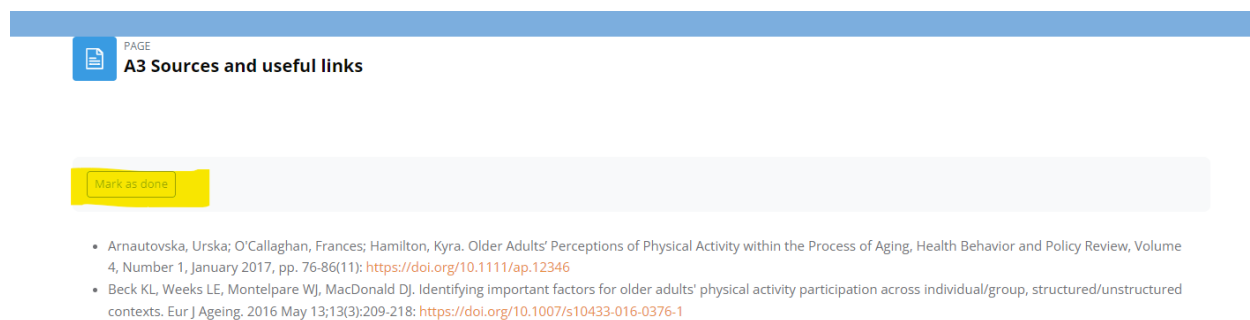
**Figure 23** The path of a currently viewing page of a specific course version – language.

## The gear-like ‘button’

The user can also navigate inside the Section(s) – Lecture(s) of a course version – language by clicking on the gear-like ‘button’ found on the top-right side, when the user is logged in (Figure 6).

## Progress monitoring

The user can “Mark as done” each course/material/etc. already finished using the corresponding ‘button’, found at the top left side of the viewing content (Figure 24). This allows for a reliable tracking of the user’s progress (see also Section 1.3.4 Moodle account details: Registered user profile, preferences etc.).



**Figure 24** The Mark as done ‘button’, highlighted in yellow colour.

### 1.3.7 Moodle platform usage policy

The “Site policy agreement” shows up in the following cases:

- when the user accesses the platform for the first time,
- when the user accesses the platform from a browser not used before,
- if the webpage’s ‘cookies’ have expired or should be renewed (this depends on the browser and the user’s settings on the browser used).

The user should read the instructions provided in the “Site policy agreement” window and agree on the policy to proceed to the platform’s use (Figure 25). If the user agrees on the policy, then is transferred to the initial page of the platform.

## PA4AGE learning platform

### (1) Introduction

Before you start, we would like to point out that the use of the PA4AGE learning platform is completely **voluntary**. The learning platform gives only **recommendations** regarding a regular physical activity behavior. Please note that this is **not a therapeutic intervention**.

### (2) Please pay attention to our safety tips:

- If you feel unsafe or have specific health conditions, discuss your physical activity plan with your general practitioner.
- Start your exercise program slowly with low-intensity exercises.
- Warm up before exercising and cool down afterward.
- Pay attention to your surroundings when exercising outdoors.
- Drink water before, during, and after your workout session.
- Wear appropriate fitness clothes and shoes for your activity.

Please confirm that you have read the (1) **introduction** and the (2) **safety tips**.

**If YES:** You will be redirected to the Home page and you may start studying the material of the platform.

**If NO:** You will be redirected to the Home page and you cannot proceed further in the educational material.

**Confirm**

You must agree to this policy to continue using this site. Do you agree?

Figure 25 The PA4AGE user policy – “Site policy agreement” window.

## 1.4 The role and skills of the instructor

In general, online teaching requires educators to combine different roles, sometimes in a bigger scale than when in a physical classroom. Main aspects that an instructor should keep in mind when in online training are:

**Pedagogical.** The pedagogical role is about encouragement, direction and guidance of the learners taking into consideration their individual ability and needs to follow the course and get the most out of it.

**Social.** Social aspect refers to the ability of the mentor even through an online environment to create a friendly atmosphere that promotes learning and sharing. Just like your physical classroom, you want your online class to be a positive and welcoming environment.

**Technical.** The technical aspect refers to the successful online interaction with the learners, the monitoring of their progress, the use of the platform's interactive parts and the response to any of their needs.

Important training principles in online training are:

### **Guide the student**

Facilitator - instructor in online learning has to make sure that he is present from the beginning to the end, starting from making clear the whole process, ranging from how to use and access the tools, to how to organize themselves in order to successfully complete the evaluation of the course. Moderator is also in charge of organizing the agenda, sharing knowledge, creating a stimulating environment for student participation, monitoring, answering questions and evaluating.

### **Facilitate learning**

Another key role of an instructor in an e-learning platform is to know how to transfer his/her knowledge and experience through the online format. Furthermore, instructors should take advantage of existing tools to make courses more dynamic, by encouraging the use of different resources and activities: reading, audiovisuals, gamification or other practical exercises that help to maintain interest and encourage self-learning.

### **Motivate**

For effective teaching, you should reinforce the emotional part of learning so that learners **remain interested** and have a good attitude towards learning from the beginning to the end of the course. Especially for the PA4AGE's target groups:

1. For direct target group members, the essence is to provide useful interactive content that can ideally be combined with certain aspects from the professional background of the instructors allowing them to raise the awareness and the interest of possible learners.
2. For informal caregivers to provide them easy to access training material so to be able to use it successfully under the specific circumstances they face, related with the physical and mental condition of their beneficiary. PA4AGE platform takes into consideration as

well, the limited time caregivers have, and the fact that often they are under physical and mental stress, so they need comprehensive and bite size information.

3. For older people who often put other priorities, some of them might have computer anxiety and others are not keen in using online tools.

To do this, it is recommended, as a role of education, for example, that you provide your learners with clear course objectives and a timetable with deadlines.

Don't forget to also provide them with feedback that will serve as both learning and support, which will help them to feel guided during the learning process on their own, something that often causes **some learners to drop out** of the course. It is also important to respect their learning speed so that they can experience one of the main benefits of online training: flexibility.

### **Communicate**

Communicating is the key for the effectiveness of teaching. As an instructor, even at the beginning of the course, you should generate a direct discussion with your students to solve their doubts or provide feedback in a friendly and trusting environment. The most common options are tools such as chatting or videoconferencing for individual tutorials.

### **Moderate**

Moderation is mainly about fostering open discussion and exchange of opinions. Learners should feel free to ask any question and participate in a conversation. Just as it is necessary to encourage participation, for the instructor it is also necessary to moderate all those discussions that are generated in **group debates and forums** and to take advantage of collaborative learning among students.

It is crucial for the moderator to show respect and non-judgmental listening, so that everyone can feel free to express their opinion. Also to introduce new concepts, encourage discussion and give feedback on interventions to reinforce participation.

### **Evaluate**

Correcting and providing feedback according to the activity carried out by the learners is essential for their motivation and is a way of confirming whether the knowledge has been mastered correctly.

### **Most relevant skills needed**

As the demands in the field of e-learning are growing, the rising number of participants in e-learning modules in Europe is continually expanding. The new era of e-learning education opens up a new problem space for researchers in order to redefine the educational needs that arise in this sector. The demands for e-learning facilitation are:

#### **Digital media competence & Technical skills:**

- Familiarity with online equipment
- Socio-communicative skills:

- Understanding principles of online communication
- Application of e-facilitation methods

**Digital pedagogical competence:**

- Managerial/planning skills:
  - Ability to plan facilitation throughout the course
  - Ability to monitor student work in terms of time
- Pedagogical and methodological skills:
  - Instructional skills
  - Support self-directed learning
  - Create motivation & collaboration
  - Steer/cope with group dynamics
  - Evaluate learning process



## 2. Outline of the PA4AGE e-learning platform and training content

The course is divided into six (6) Sections – Lectures, which are described in detail in this Section.

### 2.1 Section A. General framework for the promotion of physical activity in older age

Section A provides a general framework for the promotion of physical activity in older age. It examines the benefits of an active lifestyle for older adults and analyses its influence on relevant aspects like frailty, dependency, and clinical conditions. Further, it discusses its interrelation with other aspects of life, including contextual, social, and political factors and how they impact and shape the promotion of physical activity in third age.

#### A1 The benefits of physical activity in old age

**OBJECTIVES:** To comprehend the benefits from the different types of physical activity and raise awareness on their role for the avoidance of sedentarism and for an (as much as possible) autonomous and independent living for older people.

#### A2 Physical activity and frailty, chronic diseases, dependency

**OBJECTIVES:** To give a basic outline of the benefits and limitations and of the types of physical activity that can be used in frailty and chronic diseases.

#### A3 The role of contextual factors into the promotion of physical activity

**OBJECTIVES:** To make a basic description of the general ecosystem around physical activity promotion and to categorize the different factors in relation to their impact on physical activity promotion. The aim is to help older people and their caregivers to make decisions on how to include, in the best possible way, PA in their lifestyle.

#### A4 Physical activity and sports

**OBJECTIVES:** In this module it is described the impetus sports may give to the promotion of physical activity and certain case studies are explored as examples.

#### A5 Practical section

**OBJECTIVES:** Quizzes for testing the knowledge of learners on the training material.



## **A6 Policy framework for the promotion of physical activity**

**OBJECTIVES:** The analysis of the policy framework and important strategical points that define the roadmap upon which different stakeholders need to follow for successfully promoting physical activity into their own frameworks.

## **2.2 Section B. Basic concepts of physical activity and motivation**

Section B provides an insight into the basic principles of physical activity and its impact on autonomous and healthy ageing. It displays different types and aspects of physical activity and their significance for developing or maintaining an active lifestyle. In addition, it examines the impact of various personal factors such as motivation and self-perception that facilitate or impede engagement in physical activity and provides mechanisms to overcome possible barriers.

### **B1 How physical activity can promote autonomy, ageing well and healthy ageing in third age**

**OBJECTIVES:** In this module it is analyzed the role of physical activity for third age, in terms of independence and avoidance of sedentarism, as well as the basic principles for the introduction of physical activity in older adults' lifestyle.

### **B2 Types of physical activity**

**OBJECTIVES:** In this module the four main types of physical activity are detailed, and certain examples corresponding to each physical activity type are given.

### **B3 Attitudes of older people towards physical activity**

**OBJECTIVES:** In this module we examine the notion and the role of personal attitude towards physical activity, the main determinants of behavior, and the two prominent theories for the promotion of physical activity.

### **B4 Practical section**

**OBJECTIVES:** Quizzes for testing the knowledge of learners on the training material.

### **B5 The role of motivation in the promotion of physical activity**

**OBJECTIVES:** In this module we explore the notion of motivation which is the cornerstone of PA4AGE training content. The different factors and strategies are detailed. Furthermore, this module refers to the most important motivation tips and how they can be customized to different lifestyles.

## 2.3 Section C. How to change behavior and start be active

This section examines the basic theory, principles and stages of behavior change models and strategies. It introduces different approaches to behavior change as well as the processes and mechanisms that shape behavior. Further, this section identifies and elaborates on useful techniques and interventions that can be applied when helping older adults engage in a more active lifestyle.

### C1 Behavior change intervention theory and models

**OBJECTIVES:** In this module we analyze the different behavior change theory and models. It gives a special focus on the cycle of change and its different stages, as well as on the different kind of strategies a professional can adopt. Finally, the module displays basic principles of communication for the facilitation of behavior change.

### C2 How to plan changes

**OBJECTIVES:** In this module it is elaborated the framework upon which changes can be materialized successfully in the interaction of caregiver and care receiver.

### C3 Behavior change intervention

**OBJECTIVES:** In this module the different stages of behavior change interventions get into focus. Furthermore, this module refers to the specific skills required for the successful implementation of the behavior change.

### C4 Back casting exercises and examples

**OBJECTIVES:** Description of the back casting model for behavior change.

### C5 Practical section

**OBJECTIVES:** Quizzes for testing the knowledge of learners on the training material.

## 2.4 Section D. Recommendations and guidelines for exercise and physical activity

The course offers practical recommendations for helping older adults engage in physical activity, including components of exercise and related guidelines. It provides suggestions on how to plan exercises for older adults and analyses the preconditions and requirements for older adults to be physically active in a safe and customized way. It further elaborates on the implementation of technology during physical activity.

### **D1 Exercise components and related guidelines**

OBJECTIVES: In this module we outline the different exercise components, and we introduce the official guidelines for exercise in old age to serve as a guide for those interested in getting engaged in some kind or form of physical activity.

### **D2 Planning exercises for older adults**

OBJECTIVES: In this module, the concept and the main rules for exercising are shown. In addition, the main series of videos with exercises with plenty of different exercises for the main body parts, are attached.

### **D3 Preparing the right conditions for older people to exercise in a safe and customized way**

OBJECTIVES: It is important for both the instructors and older adults participating in a physical activity session to get adequately prepared for it. This module describes the steps that should be taken and the basic recommendations before, during and after the physical activity sessions.

### **D4 Practical section**

OBJECTIVES: Quizzes for testing the knowledge of learners on the training material.

### **D5 Using technology in physical activity**

OBJECTIVES: To analyze the role of technology for the promotion of physical activity in third age.

## **2.5 Section E. Interactive part**

Section E offers interactive material, covering the provided content from Sections A – D. This includes practical exercise videos and cross-section tasks that may be used for self-evaluation.

### **E1 Lower body exercises sitting**

OBJECTIVES: To provide practical exercises for the lower body when sitting.

### **E2 Balance & Coordination in sitting, spotting required**

OBJECTIVES: To provide practical exercises for balance and coordination when sitting. For this set of exercises spotting is required.

### **E3 Upper body exercises**

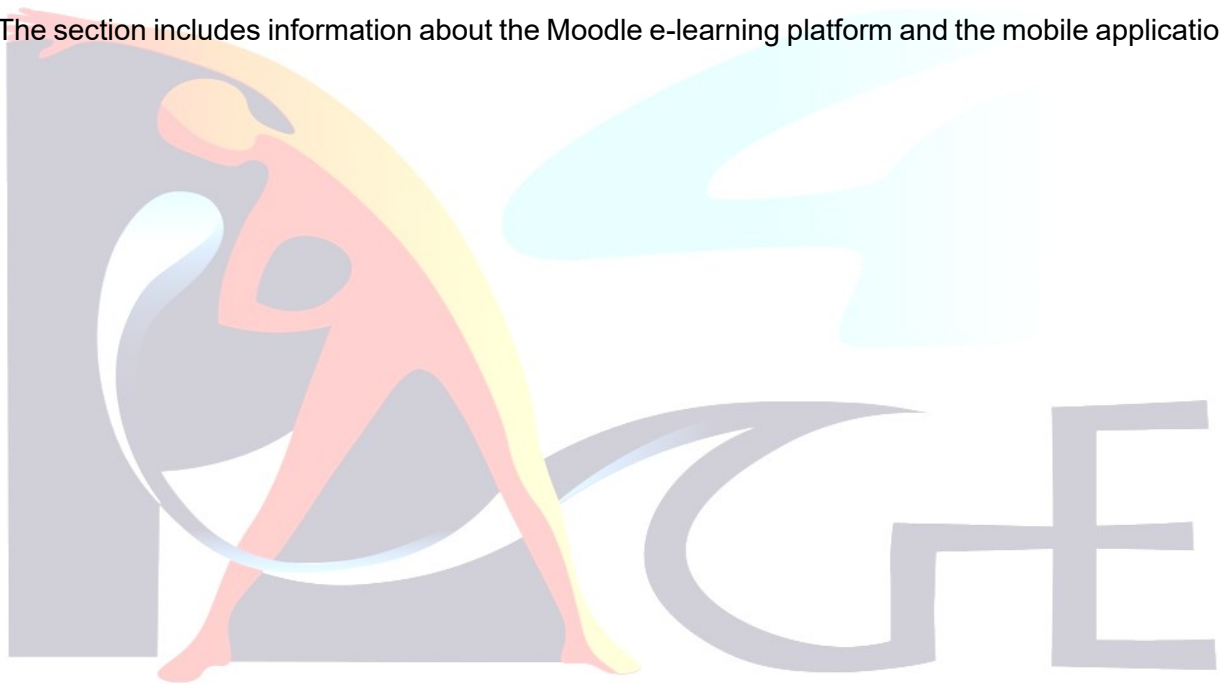
OBJECTIVES: To provide practical exercises for the upper body.

### **E4 Cross-section interactive task**

OBJECTIVES: The aim of E4 task is to give the opportunity to the learners to apply the gained so far knowledge into specific case studies given to them. Learners should rely on their own crisis, in order to respond to the specific questions for each case study, and also to make a preliminary plan of a basic exercising program for each of the case studies.

## **2.6 Section F. Appendix**

The section includes information about the Moodle e-learning platform and the mobile application.



### **3. Didactic approach**

#### **1. Providing information in a practical and concrete manner**

Taking under consideration the learning needs of the project's target groups, information and training material provided into PA4AGE e-learning platform, introduces learners to all basic notions and applications of physical activity, so for them to be capable of understanding and using them. This knowledge is presented in concrete sections accompanied by visual elements and interactive games or tests.

#### **2. Customization and individualization of the teaching approach**

PA4AGE's target groups form two heterogenous groups with different needs dictated by the physical and mental conditions of the beneficiaries (and of the caregivers) and possible chronic disease management. Exactly for this reason, e-learning comes to alleviate any such burdens, minimizing the time and distances, and lessening primary care interventions as much as possible.

#### **3. Being aware of the inhibiting and encouraging factors that influence the learning process**

For all instructors, it is important to be aware of all the main inhibiting and encouraging effects that can influence the learning process. Learning blockades, defensive reactions, social and individual prejudices, all these factors might eventually lead to mental and physical immobility and a reduced likelihood of leading a self-effective life (premature loss of self-competence).

#### **4. The role of motivation**

Based on the Social cognitive theory (SCT), an individual's motivation to engage in physical exercise may be influenced positively or negatively by internal factors (intrinsic motivation, e.g. knowledge of exercise benefits) and by external factors (extrinsic motivation e.g., support of others).

SCT is a behavior theory of human motivation and action. It is an offshoot of the social learning theory proposed by Bandura to explain the various internal and external processes (cognitive, vicarious, self-reflective and self-regulatory) that come into play in human psychosocial functioning. Social cognitive theory posits that motivation for behavior change is the result of dynamic and reciprocal interactions among individual, environmental, and behavioral influences.

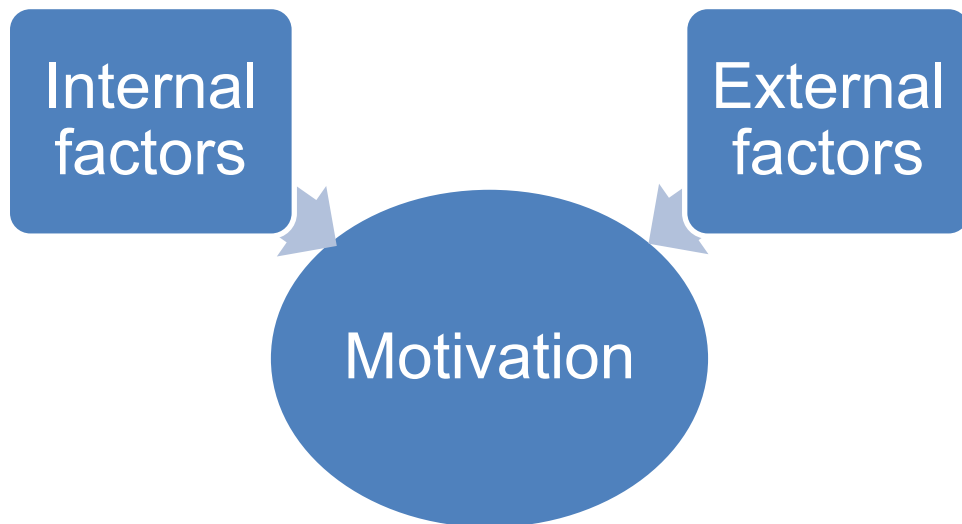


Figure 26 Motivation factors.

### 3.1. Didactic principles

#### Authenticity

Make reference to the concrete everyday experiences of your counterpart; this makes the learning situation "authentic" and particularly meaningful.

#### Interest

The way you design the learning situation should be exciting, i.e. arouse curiosity and tempt people to try things out and explore. Interest arises when there is an opportunity to gain direct and self-directed experience.

#### Multi-perspectivity

In contrast to textbook situations, everyday situations are complex. What seniors need for sustainable learning is flexible and not rigid knowledge. It is important:

- to focus on different perspectives on a problem and
- to allow for different application situations.
- to use of different coding (language, pictures, videos) helps to remember what has been learnt.

#### Situated and inert knowledge

If you teach knowledge without a context of use, you create "inert knowledge". The learner cannot link the content to his concrete situation and thus cannot apply it to his own concerns.

#### Self-direction

Every person has developed their own "learning rhythm" over the course of life. Allow the freedom to choose their own learning path and preferences. At the same time, you can offer structure by describing/agreeing on the learning goal and possible intermediate goals as precisely as possible.

### **Self-efficacy**

We are often tempted to guide the learner as closely as possible to the (supposed) goal. In the best case, this initially reduces the risk of failure. However, it has a major disadvantage: if it works, the seniors cannot attribute success to themselves (which would increase their self-efficacy). Further learning thus becomes less likely.

### **Cooperation**

Learning together with others satisfies the need for social inclusion in many people. It also contributes to multi-perspectivity through the different opinions and experiences of the participants. Consider whether and how it is possible for you to facilitate shared learning experiences (digital or on-site) for seniors.

### **Learning with all senses**

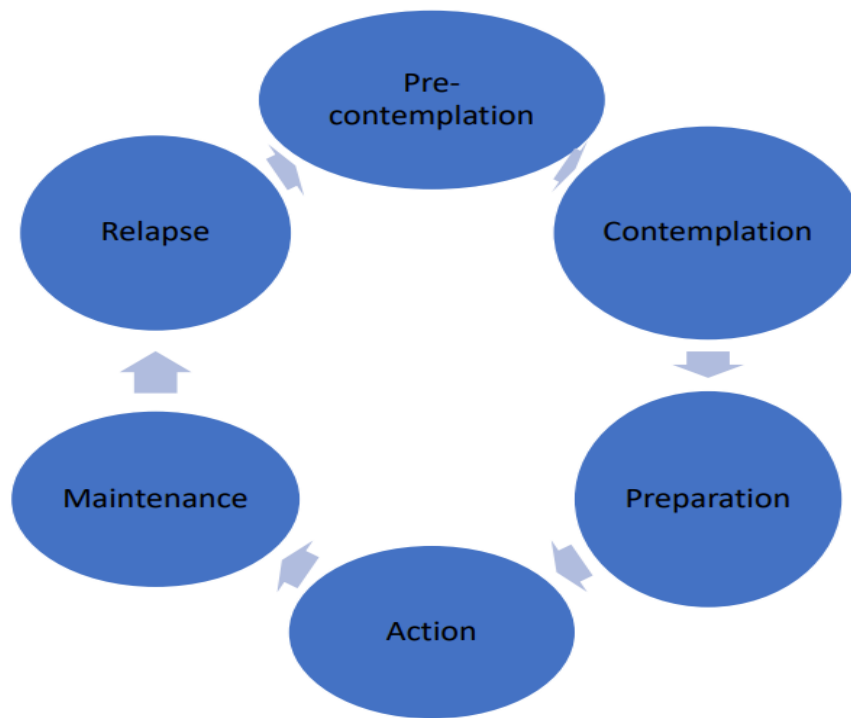
Use different senses to create interesting and learner-friendly diversity:

- Take in information: offer the same learning content with text, spoken word, pictures, videos, sketches.
- Process information: memorise something linguistically, memorise an inner image, find your own words.
- Reproduce information: explain what has been learned to others, visualise it, apply it to concrete problems.

## **3.2 The cycle of change - supporting behavior change**

### **In general:**

- Prochaska e Di Clemente, 1989
- Model of change based on stages
- Movement between stages is fluid and can occur in more or less time
- Intentions and actions should be determined by the motivational stage of the individual



**Figure 27** The cycle of change by Prochaska e Di Clemente, 1989.

### **Stage 1 Pre-contemplation**

- Is the stage at which there is no intention to change behavior in the foreseeable future.
- Many individuals in this stage are unaware or under-aware of their problems.
- Some people call this phase “denial.”

### **Stage 2 Contemplation**

- Individuals are ambivalent about change.
- They are aware of the negative consequences of unhealthy behaviour and might consider change.
- There is no commitment to take action to change.
- At this stage they feel stuck.

### **Stage 3 Preparation**

- People at this stage intend to act and may have already had previous failed attempts at change.
- They may have already taken their first steps and 'tasted the ground'.



- They may already have an initial plan.

### Stage 4 Action

- Individuals at this stage are **actively changing** their behaviour or environment in a positive way to solve the problem.
- The change has typically been taking place for **less than six months**.

### Stage 5 Maintenance

- The individual works in a **proactively** to prevent relapse.
- Change is **continuous**.

### Stage 6 Relapse

- The person **stops and/or reduces** the frequency of the **motor activity** they had started.

## 3.3 Self-determination theory

Self-determination refers to a person's ability to make choices and be in control of his/her's own life.

The basic assumption is that people are motivated to grow and change by three 3 basic needs that all people have in common. If these are fulfilled, intrinsic motivation arises, i.e. the activity itself is already perceived as fulfilling.

**Autonomy:** People need to feel in control of their own behaviors and goals. This sense of being able to take direct action that will result in real change plays a major part in helping people feel self-determined.

**Competence:** People need to gain mastery of tasks and learn different skills. When people feel that they have the skills needed for success, they are more likely to take actions that will help them achieve their goals.

**Connection or relatedness:** People need to experience a sense of belonging and attachment to other people.

Self-determination theory suggests that people can become self-determined when their needs for competence, connection, and autonomy are fulfilled, and is an important concept in psychology since it plays a role in psychological health and well-being.

Self-determination theory makes two key assumptions:

The need for growth drives behavior. The first assumption of self-determination theory is that people are actively directed toward growth. Gaining mastery over challenges and taking in new experiences are essential for developing a cohesive sense of self.

Autonomous motivation is important. While people are often motivated to act by external rewards such as money, prizes, and acclaim (known as extrinsic motivation), self-determination theory focuses primarily on internal sources of motivation such as a need to gain knowledge or independence (intrinsic motivation).

### 3.4. Awareness of your role as mentor

In concrete terms, you should be able to answer the following questions at the end of this learning unit:

- What are my own roles and attitudes?
- What are the special features of adult education?
- What needs to be considered for the specific learning group of older people?
- Which didactic key concepts can help me in my work?
- Where can I find these didactic concepts on the PA4AGE learning platform?
- What can I do concretely to facilitate learning and promote desired behavioural changes?

### 3.5 Adult Learning Principles

This training is based on important adult learning principles, including:

- Respect – Adult students must feel respected and feel like equals.
- Affirmation – Adult students need to receive praise, even for small attempts.
- Experience – Adult students learn best by drawing on their own knowledge and experience.
- Relevance – Learning must meet the real-life needs of adults for their work, families, etc.
- Dialogue – Teaching and learning must go both ways, so that the students enter into a dialogue with the teacher.
- Engagement – Adult students must engage with the material through dialogue, discussion, and learning from peers.
- Immediacy – Adult students must be able to apply their new knowledge immediately.
- 20-40-80 Rule – Adult students typically remember 20% of what they hear, 40% of what they hear and see, and 80% of what they hear, see, and do.
- Thinking, feeling, and acting – Learning is more effective when it involves thinking, feeling (emotions), and also acting (doing).

- Safety and comfort – Adult students need to feel safe and comfortable in order to participate and learn. They need to know that their ideas and contributions will not be ridiculed or belittled.

### 3.5.1 Trainer's checklist

- Uphold the principles of adult learning.
- Be respectful.
- Treat everyone equally.
- Listen and observe.
- Maintain good eye contact.
- Use open and friendly body language.
- Be flexible and adjust training activities and approaches as needed.
- Be patient, open, and approachable.
- Encourage participation from all participants.
- Give participants time to respond to questions.
- When participants ask questions, take them seriously and respond promptly.
- Give participants constructive, positive feedback.
- Be aware of participants' interest, energy, and level of understanding.
- Be honest. If you do not know the answer to a question, say so. Then tell the participant where she/he can get the information or find the information after the training and give it to the participant later.
- Be aware of participants' literacy levels and adjust activities accordingly.
- Thank participants for their participation and effort.

### 3.5.2 Training preparation

#### Before the training

- Identify when the training will take place.
- Identify where training will take place, and reserve and prepare the space.
- Identify participants, inform them, and arrange for transportation, food, and lodging as needed.
- Read all training materials thoroughly so that you are very familiar with training content and activities. If you have questions about the training content, get them answered.
- Complete all preparation for training activities (making photocopies, contacting guest speakers, gathering supplies for demonstrations, etc.).

- Gather all supplies needed for the training (flip chart paper, tape, markers, supplies needed for demonstrations, AV equipment, etc.).
- If you are working with another facilitator, decide ahead of time who will handle which parts of the training, and divide up the work accordingly.

### **At the start of the training**

- Make sure that all training materials are ready, and that chairs and tables are arranged.
- Welcome participants as they arrive for the training.
- Welcome the whole group formally when everyone has arrived.
- Review the location of bathrooms, water, the Anonymous Question Box, and other logistics.
- Ask participants to introduce themselves.
- Use an icebreaker to put participants at ease.
- Brainstorm and establish ground rules for the training.
- Review the training objectives and agenda.
- Ask participants to name their hopes and expectations for the training.
- Assign specific participants to help you with timekeeping, energizers, flip charts, etc.
- Give participants the Pre-Test, collect the tests, and correct them during a break.

### **Throughout the training**

- Uphold the principles of adult learning.
- Keep track of time and pace activities accordingly.
- Provide drinks and food.
- If the room is becoming hot or uncomfortable, arrange for fans, open windows, etc.
- Write neatly and large enough so that everyone can see. ... Position visuals so that everyone can see them.
- Explain instructions clearly and repeat instructions as needed.
- Use energizers and breaks to raise participants' energy levels.
- Summarize the main points at the end of each activity.
- Acknowledge and thank participants for their ideas and contributions.

### **At the end of the training**

- Thank participants for their participation and effort.
- End with a final energizer and applause.

- Give participants the Post-Test. Then give participants their corrected Pre-Tests and ask them to compare results. Collect and save all Pre- and Post-Tests.
- Leave at least 15–20 minutes at the end for participants to evaluate the training.
- Make sure that participants have all the training materials to take home.

### **After the training**

- Make notes of what worked well during the training, what did not work well, and what should be revised for future trainings.
- Make notes of challenges or problems that arose during the training that need to be addressed.
- Review and record Pre- and Post-Test results and use them to update future trainings as needed.



## References

- [1] Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hall.
- [2] C. Karachristos, T. Kouvara, T. Orphanoudakis, E. Stavropoulos, Z. Batsi, M. Chronopoulou<sup>2</sup>, (2020), Defining e-learning facilitation – The Greek case study, Proceedings of 13th annual International Conference of Education, ICERI 2020 9<sup>th</sup>–10<sup>th</sup> November 2020. <https://doi.org/10.21125/iceri.2020.1353>
- [3] Charles Duhigg (2012), *The Power of Habit: Why We Do What We Do in Life and Business*, 1<sup>st</sup> ed., Random House
- [4] Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227-268. [https://doi.org/10.1207/S15327965PLI1104\\_01](https://doi.org/10.1207/S15327965PLI1104_01)
- [5] Dennen, V.P., Jones, M.K. (2023). The Role of the Online Instructor. In: Zawacki-Richter, O., Jung, I. (eds) *Handbook of Open, Distance and Digital Education*. Springer, Singapore. [https://doi.org/10.1007/978-981-19-2080-6\\_62](https://doi.org/10.1007/978-981-19-2080-6_62)
- [6] González Hernández, (2021). Didactic principles: A proposal from the theory of subjectivity. *Culture & Psychology*, 27(4), 632-644. <https://doi.org/10.1177/1354067X20984355>
- [7] Kristi DePaul, (2021), What Does It Really Take to Build a New Habit? *Harvard business review* - <https://hbr.org/2021/02/what-does-it-really-take-to-build-a-new-habit>
- [8] Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68-78. <https://doi.org/10.1037/0003-066X.55.1.68>