



Moodle Technical User Manual

Technical Moodle User Manual for the
EU4ALL components



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Abstract	This document provides an overview of the user's perspective in using the Moodle prototype developed by IPL.			
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List of abbreviations

EU4ALL European Unified Approach for Accessible Lifelong Learning

LMS Learning Management System

IPL *Instituto Politécnico de Leiria* (Polytechnic Institute of Leiria)

UM User Model

CP Content Personalization

MR Metadata Repository

PHP PHP Hypertext Preprocessor

LAMP – Linux Apache MySQL PHP

VLE – Virtual Learning Environment

1 Introduction

The aim of this document is to describe the IPL Moodle implementation of the EU4ALL framework from the user perspective and it will focus on the administrator, teacher (or tutor) and student (or learner) views of the system and how to use them.

2 Moodle VLE actions

This chapter will demonstrate some of the actions available to the Moodle VLE users when using the EU4ALL Moodle components:

- View and edit EU4ALL user accessibility preferences
- Insert and manage adapted resources (or adaptations)
- Presentation of digital content (or resources) that are suited to a specific EU4ALL user profile
- View EU4ALL specific capabilities for an user or role
- Edit EU4ALL Moodle plugin settings

There are a number of additional actions that could be considered, but are currently ruled out of the scope of this document. These include:

- Adding new user accounts to the Moodle system
- Adding a new course to the system
- Adding resources to a course
- Authentication on the Moodle VLE
- Installation of the EU4ALL Moodle components

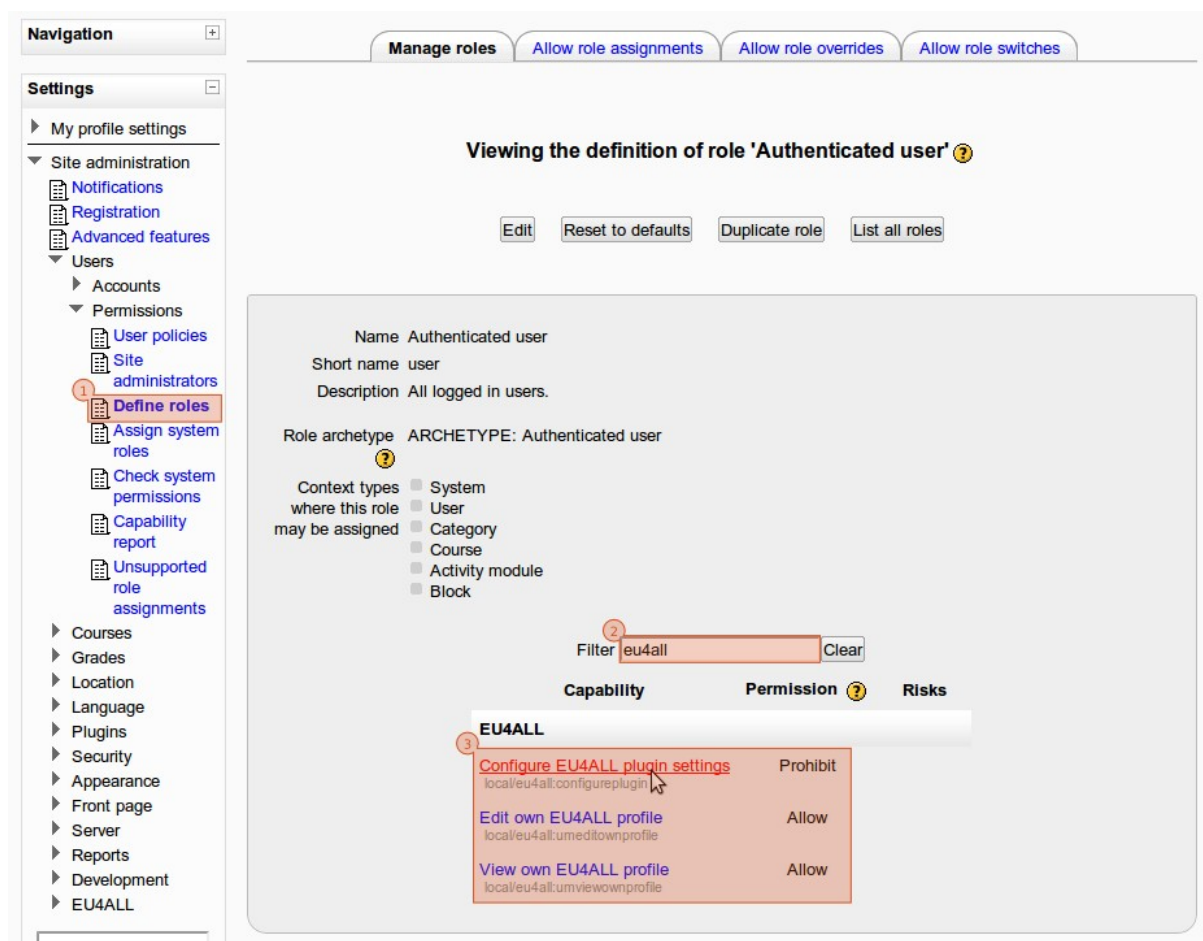
2.1 Administrator actions

2.1.1 View EU4ALL accessibility preferences capabilities

The Moodle system administrators can allow or prohibit the editing or the viewing of the EU4ALL accessibility preferences by the users with a specific role on the VLE.

1. As a Moodle system administrator go to the Site administration->Users->Permissions->Define roles option on the "Settings" block (1).
2. Click on the Role name and filter the capabilities using the eu4all keyword (2)
3. The EU4ALL Moodle capabilities should appear (3)

By default all the authenticated users can view and update their own profile ("View own EU4ALL profile" and "Edit own EU4ALL profile" capabilities) as can be seen on the figure 1.



Navigation

Settings

- My profile settings
- Site administration
 - Notifications
 - Registration
 - Advanced features
 - Users
 - Accounts
 - Permissions
 - User policies
 - Site administrators
 - Define roles**
 - Assign system roles
 - Check system permissions
 - Capability report
 - Unsupported role assignments
 - Courses
 - Grades
 - Location
 - Language
 - Plugins
 - Security
 - Appearance
 - Front page
 - Server
 - Reports
 - Development
 - EU4ALL

Manage roles | Allow role assignments | Allow role overrides | Allow role switches

Viewing the definition of role 'Authenticated user' ?

Edit | Reset to defaults | Duplicate role | List all roles

Name: Authenticated user
Short name: user
Description: All logged in users.

Role archetype: ARCHETYPE: Authenticated user

Context types where this role may be assigned:

- ☐ System
- ☐ User
- ☐ Category
- ☐ Course
- ☐ Activity module
- ☐ Block

Filter: eu4all | Clear

Capability	Permission ?	Risks
EU4ALL		
Configure EU4ALL plugin settings local/eu4all:configureplugin	Prohibit	
Edit own EU4ALL profile local/eu4all:umeditownprofile	Allow	
View own EU4ALL profile local/eu4all:umviewownprofile	Allow	

Figure 1: EU4ALL Moodle role capabilities for the 'authenticated user'

The capability "Configure EU4ALL plugin settings" defines who can configure the EU4ALL plugin settings and it is only allowed to system administrators by default.

2.1.2 View EU4ALL content adaptations capabilities

The Moodle system administrators can control which user roles are allowed to see the resources alternatives. By default only teachers (editing teachers) or “above” can see and manage the content alternatives from a specific resource.

To see which roles have this capability an administrator can search for `format/adaptable` on page “Capability report” on the menu option Site administration->Users->Permissions->Capability report to get a report from the “`format/adaptable:viewadaptables`” capability as presented on the figure 2.

Home ► Site administration ► Users ► Permissions ► Capability report

Blocks editing on

Navigation

Settings

- My profile settings
- Site administration
 - Notifications
 - Registration
 - Advanced features
 - Users
 - Accounts
 - Permissions
 - User policies
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 - Reports
 - Development
 - EU4ALL

Search

Report settings

This report shows, for a particular capability, what permission that capability has in the definition of every role (or a selection of roles), and everywhere in the site where that capability is overridden.

Capability:

Search:

Roles:

Report for capability 'View adaptable associated resources'

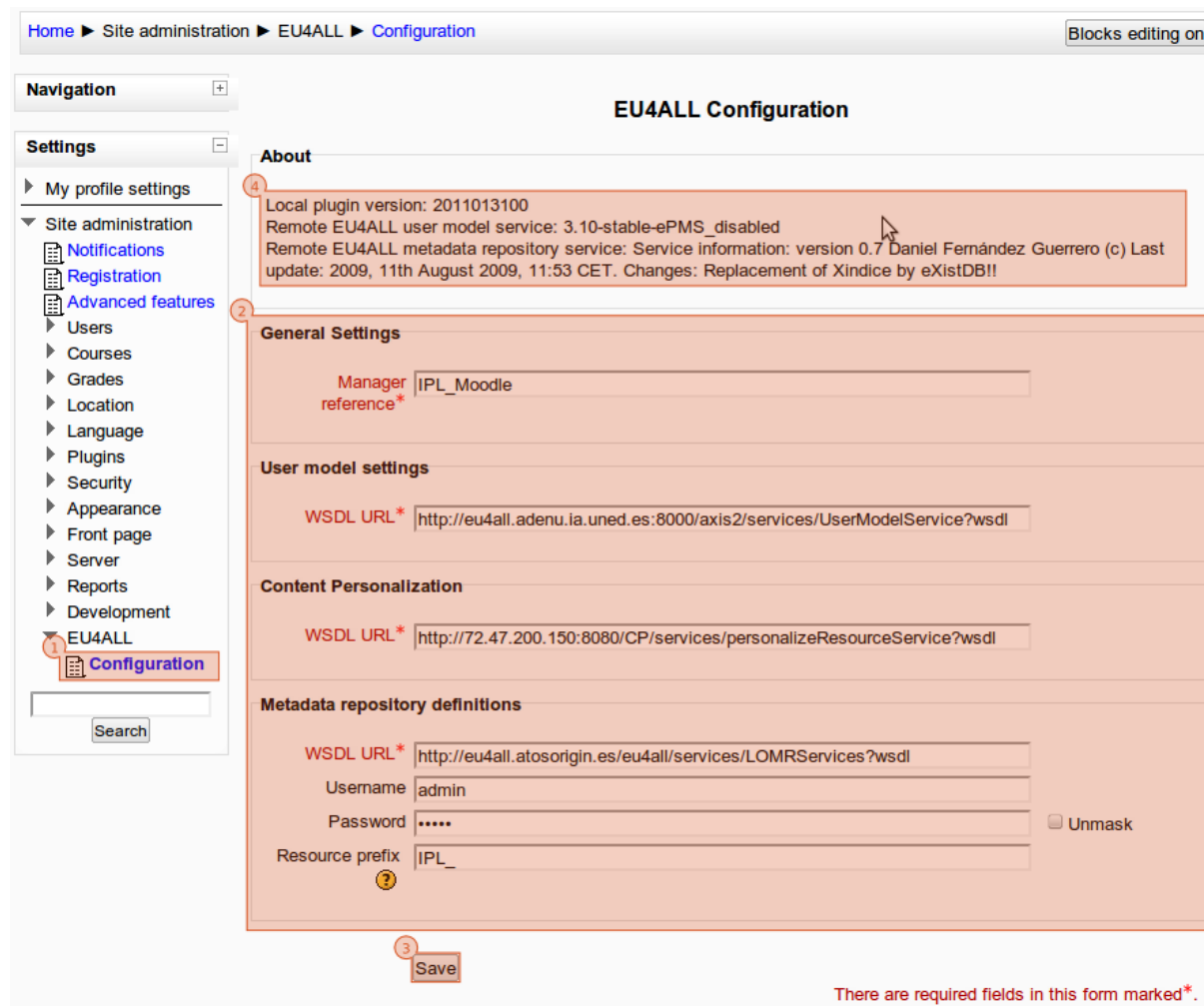
System

Manager	Allow
Course creator	Allow
Teacher	Allow
Non-editing teacher	Prohibit
Student	Prohibit
Guest	Prohibit
Authenticated user	Prohibit
Authenticated user on frontpage	Prohibit

Figure 2: EU4ALL format capabilities

2.1.3 Edit EU4ALL plugin settings

The Moodle VLE administrators or the users with a role with the capability "Configure EU4ALL plugin settings" (as seen on the section 2.1.1) are allowed to configure the EU4ALL Moodle plugin (figure 3).



Home ► Site administration ► EU4ALL ► Configuration

Navigation

Settings

My profile settings

Site administration

Notifications

Registration

Advanced features

Users

Courses

Grades

Location

Language

Plugins

Security

Appearance

Front page

Server

Reports

Development

EU4ALL

Configuration

Search

EU4ALL Configuration

About

Local plugin version: 2011013100
 Remote EU4ALL user model service: 3.10-stable-ePMS_disabled
 Remote EU4ALL metadata repository service: Service information: version 0.7 Daniel Fernández Guerrero (c) Last update: 2009, 11th August 2009, 11:53 CET. Changes: Replacement of Xindice by eXistDB!!

General Settings

Manager reference*

User model settings

WSDL URL*

Content Personalization

WSDL URL*

Metadata repository definitions

WSDL URL*

Username

Password ☐ Unmask

Resource prefix ?

Save

There are required fields in this form marked*.

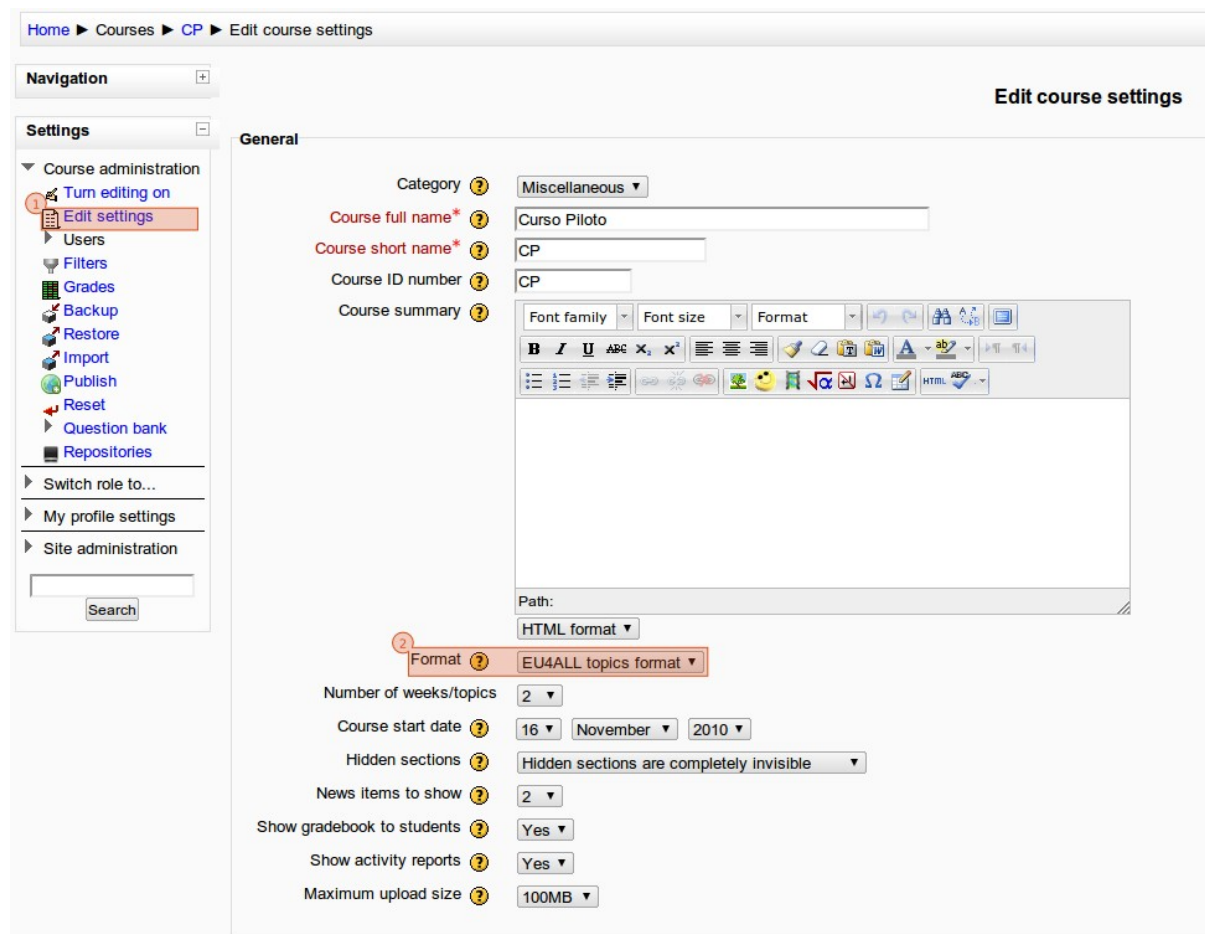
Figure 3: EU4ALL Moodle plugin settings

1. As a Moodle system administrator go to "Settings" block and click on the Site administration->EU4ALL->Configuration option (1).
2. Update the plugin settings based on your definitions (2). The update of the Manager reference and resource prefix is highly recommended.
3. Save your settings (3)
4. If this page is refreshed again (to assume the saved data), the system will present some information about the remote services (4).

2.2 Teacher and/or tutor actions

2.2.1 Set the EU4ALL course format

To use the EU4ALL framework on a course the “EU4ALL topics format” should be enabled for that course.



The screenshot shows the Moodle 'Edit course settings' page. On the left, the 'Settings' block is expanded, and 'Edit settings' is highlighted with a red box and a circled '1'. In the main 'General' settings area, the 'Format' dropdown menu is highlighted with a red box and a circled '2', showing 'EU4ALL topics format' selected. Other visible settings include 'Category' (Miscellaneous), 'Course full name' (Curso Piloto), 'Course short name' (CP), 'Course ID number' (CP), 'Course summary' (with a rich text editor), 'Path' (HTML format), 'Number of weeks/topics' (2), 'Course start date' (16 November 2010), 'Hidden sections' (Hidden sections are completely invisible), 'News items to show' (2), 'Show gradebook to students' (Yes), 'Show activity reports' (Yes), and 'Maximum upload size' (100MB).

Figure 4: Course format settings

1. As a Moodle editing teacher go to “Settings” block and click on the Course administration->Edit settings option (1).
2. Select the “EU4ALL topics format” on the “Format” combo box (2) and save the changes.

2.2.2 View the resource alternatives

As discussed on the section 2.1.2, an user with the “format/adaptable:viewadaptables” capability (editing teacher) can see the relations between the resources and their alternatives or enhancements when visiting the course with the “EU4ALL topics format”.



Figure 5: Course topic view by an editing teacher

The figure 5 shows a topic of a course on the Moodle VLE from the editing teacher perspective. The user can see a special resource called adaptable (1), the resource that will be presented to the users when viewing the topic. When a student clicks on this resource, the Moodle will make a request to the EU4ALL framework to retrieve the resource identifier of a resource to be presented to the user: if there is an alternative to be presented, the Moodle will show that resource (e.g., one of three resources of the box number 3 on the figure 5); if no alternative is available (or on error), the Moodle will show the default resource (e.g., the resource hinted by the box number 2 on the figure 5).

2.2.3 Manage the resource alternatives

Like on the view the resource alternatives, to manage resource alternatives it is necessary the “format/adaptable:viewadaptables” capability for the authenticated user. By default all the editing teachers have this capability allowed on their role, but the administrator can override this behaviour like we have seen before.

The work flow to insert a resource and their alternatives is relatively simple:

1. Insert the default resource (or content) to be presented to the users as default, for example, when an user doesn't have any disability.
2. Insert the resource alternative(s) to be presented as the replacement for the default resource.
3. Insert an resource from the type "Adaptable" to establish the relations between resources and publish this information to the EU4ALL central repository. This resource doesn't provide content *per se* but is a necessary abstraction to access the alternatives of a resource.

The steps 1 and 2 are pretty straight forward for any teacher familiar with the Moodle VLE and are beyond the scope of this document.

To insert an "Adaptable" the following steps are required:

1. On a course, as an editing teacher, turn the edit mode on.
2. On the topic where the link to the resource should appear, expand the combo box "Add a resource..." and select "Adaptable".

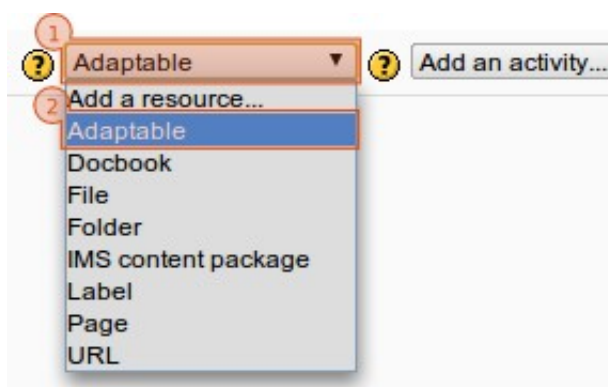
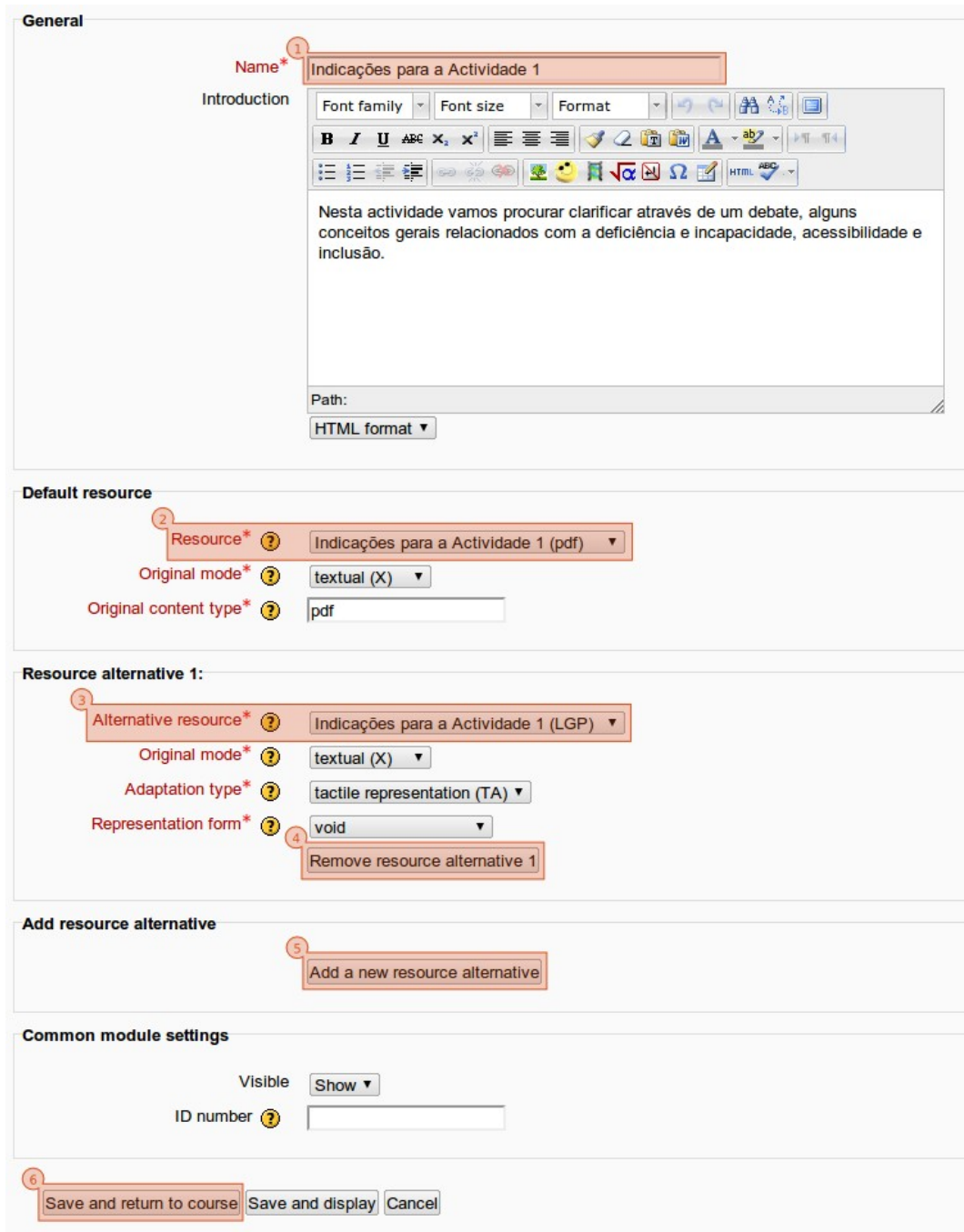


Figure 6: Insert "Adaptable" resource

3. Give a name for the resource (this is the name of the link that will appear to all users when viewing the parent topic - 1) and fill the meta data information that define the default resource (2) and their alternative(s) (3). All "adaptables" should have at least a default resource set and can have zero or many alternative resources associated (use the buttons "Add a new resource alternative" - 5 - or "Resource alternative #" - 4 - to, respectively, add or remove a

resource alternative from the adaptable). All the resources associated with an “adaptable” cannot be associated with other “adaptables”.



The screenshot shows the 'Describe an adaptable' form in Moodle. It is divided into several sections:

- General:** Contains a 'Name' field (1) with the value 'Indicações para a Actividade 1'. Below it is an 'Introduction' text area with a rich text editor toolbar. The text in the area reads: 'Nesta actividade vamos procurar clarificar através de um debate, alguns conceitos gerais relacionados com a deficiência e incapacidade, acessibilidade e inclusão.' At the bottom of this section is a 'Path' field and a 'HTML format' dropdown.
- Default resource:** Contains a 'Resource' dropdown (2) with the value 'Indicações para a Actividade 1 (pdf)'. Below it are 'Original mode' (dropdown, value 'textual (X)') and 'Original content type' (text input, value 'pdf').
- Resource alternative 1:** Contains an 'Alternative resource' dropdown (3) with the value 'Indicações para a Actividade 1 (LGP)'. Below it are 'Original mode' (dropdown, value 'textual (X)'), 'Adaptation type' (dropdown, value 'tactile representation (TA)'), and 'Representation form' (dropdown, value 'void') (4). A 'Remove resource alternative 1' button is also present.
- Add resource alternative:** Contains an 'Add a new resource alternative' button (5).
- Common module settings:** Contains a 'Visible' dropdown (value 'Show') and an 'ID number' text input field.
- Buttons:** At the bottom, there are three buttons: 'Save and return to course' (6), 'Save and display', and 'Cancel'.

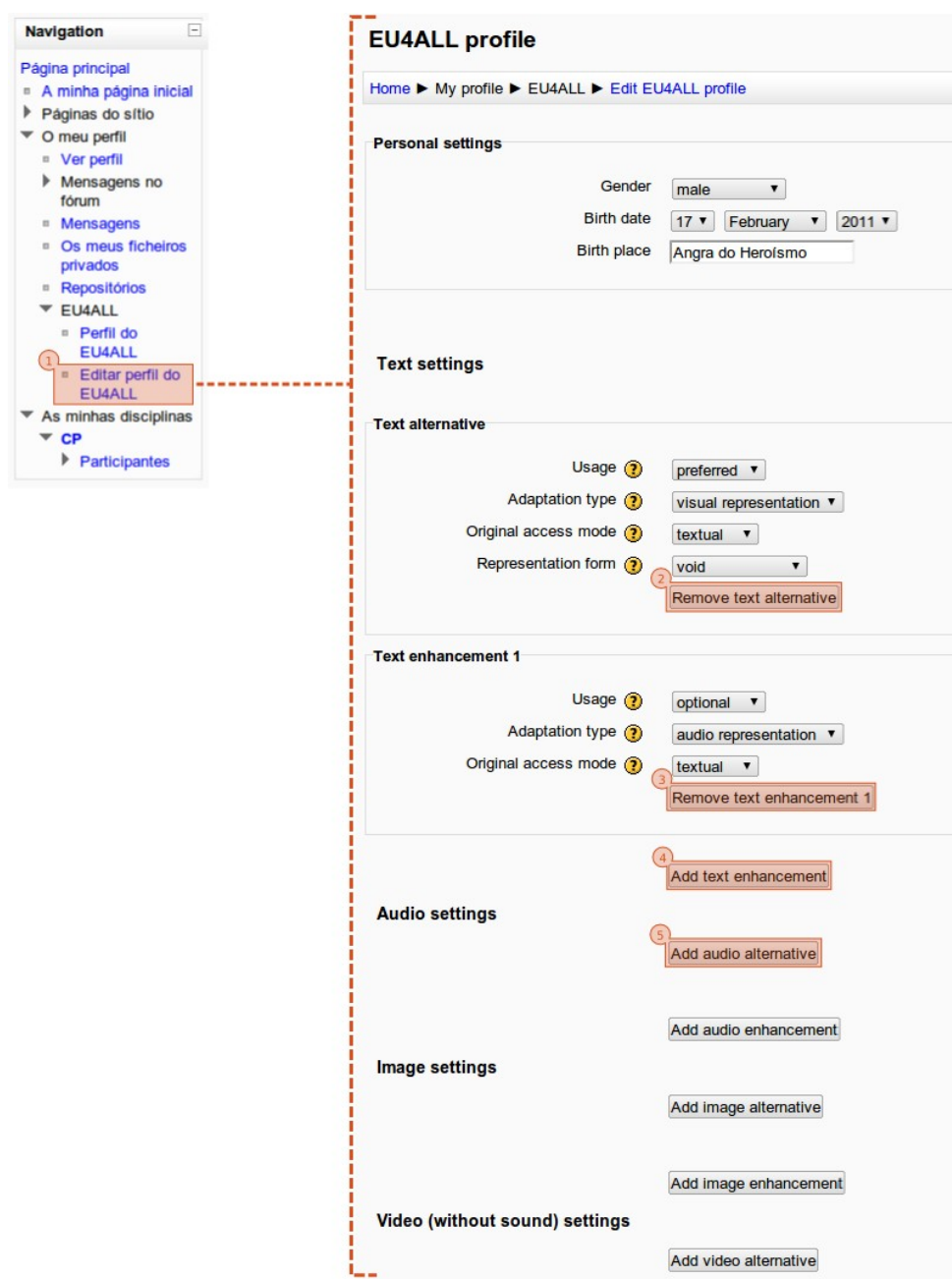
Figure 7: Describing an “adaptable”

4. Save the “adaptable” resource (6). This will send the meta data about the resources associated with this resource to the EU4ALL central repository.

2.3 Student actions

2.3.1 Edit EU4ALL accessibility preferences

The student should update their accessibility preferences as soon as possible, so the system can provide the correct adaptations based on the user preferences and needs. To do this, the following steps are required:



Navigation

- Página principal
- A minha página inicial
- Páginas do sítio
- O meu perfil
 - Ver perfil
 - Mensagens no fórum
 - Mensagens
 - Os meus ficheiros privados
 - Repositórios
 - EU4ALL
 - Perfil do EU4ALL
 - Editar perfil do EU4ALL**
- As minhas disciplinas
 - CP
 - Participantes

EU4ALL profile

Home ► My profile ► EU4ALL ► Edit EU4ALL profile

Personal settings

Gender: male
 Birth date: 17 February 2011
 Birth place: Angra do Heroísmo

Text settings

Text alternative

Usage: preferred
 Adaptation type: visual representation
 Original access mode: textual
 Representation form: void
 Remove text alternative

Text enhancement 1

Usage: optional
 Adaptation type: audio representation
 Original access mode: textual
 Remove text enhancement 1

Audio settings

Add text enhancement

Add audio alternative

Add audio enhancement

Image settings

Add image alternative

Add image enhancement

Video (without sound) settings

Add video alternative

Figure 8: Edit EU4ALL accessibility preferences

1. As a Moodle student go to "Navigation" block and click on the My profile->EU4ALL->Edit EU4ALL profile option (1).
2. On the "Edit EU4ALL profile" page, update the personal settings and define the accessibility preferences for each content type. A content type can only have zero or one alternative content but there's no restriction on number of enhancements. The user should use the buttons on the form to add or remove alternatives and enhancements (3, 4, 5).
3. When ready, the user should press "Save changes" to submit the profile information do the EU4ALL repository.

2.3.2 View EU4ALL accessibility preferences

The user can see their accessibility preferences at any time using the My profile->EU4ALL->EU4ALL profile option on the "Navigation" block.

EU4ALL profile

[Home](#) ► [My profile](#) ► [EU4ALL](#) ► [EU4ALL profile](#)

Navigation

- [Home](#)
- [My home](#)
- [Site pages](#)
- ▼ [My profile](#)
 - [View profile](#)
 - [Forum posts](#)
 - [Messages](#)
 - [My private files](#)
 - [Repositories](#)
 - ▼ [EU4ALL](#)
 - 1 ▫ [EU4ALL profile](#)
 - [Edit EU4ALL profile](#)
 - [My courses](#)

Settings

- ▼ [My profile settings](#)
 - [Edit profile](#)
 - [Messaging](#)

First name: Cláudio

Last name: Esperança

E-mail: claudio.esperanca@ipleiria.pt

Gender: male

Birth date: 2011-02-17

Birth place: Angra do Heroísmo

Text alternative:

Usage:	required
Adaptation type:	visual representation
Original access mode:	visual

Text enhancement 1:

Usage:	optional
Adaptation type:	audio representation
Original access mode:	visual

Audio alternative:

Usage:	required
Adaptation type:	audio representation
Original access mode:	visual

[Edit EU4ALL profile](#)

Figure 9: View EU4ALL accessibility preferences

The plugin does not save the EU4ALL user accessibility preferences locally and the data shown on this page are the same available on the central repository.

2.3.3 Presentation of digital content

Based on the EU4ALL user accessibility preferences and the resources available, the framework can show a resource more suitable for the user than the default one. This process is totally transparent for the user.

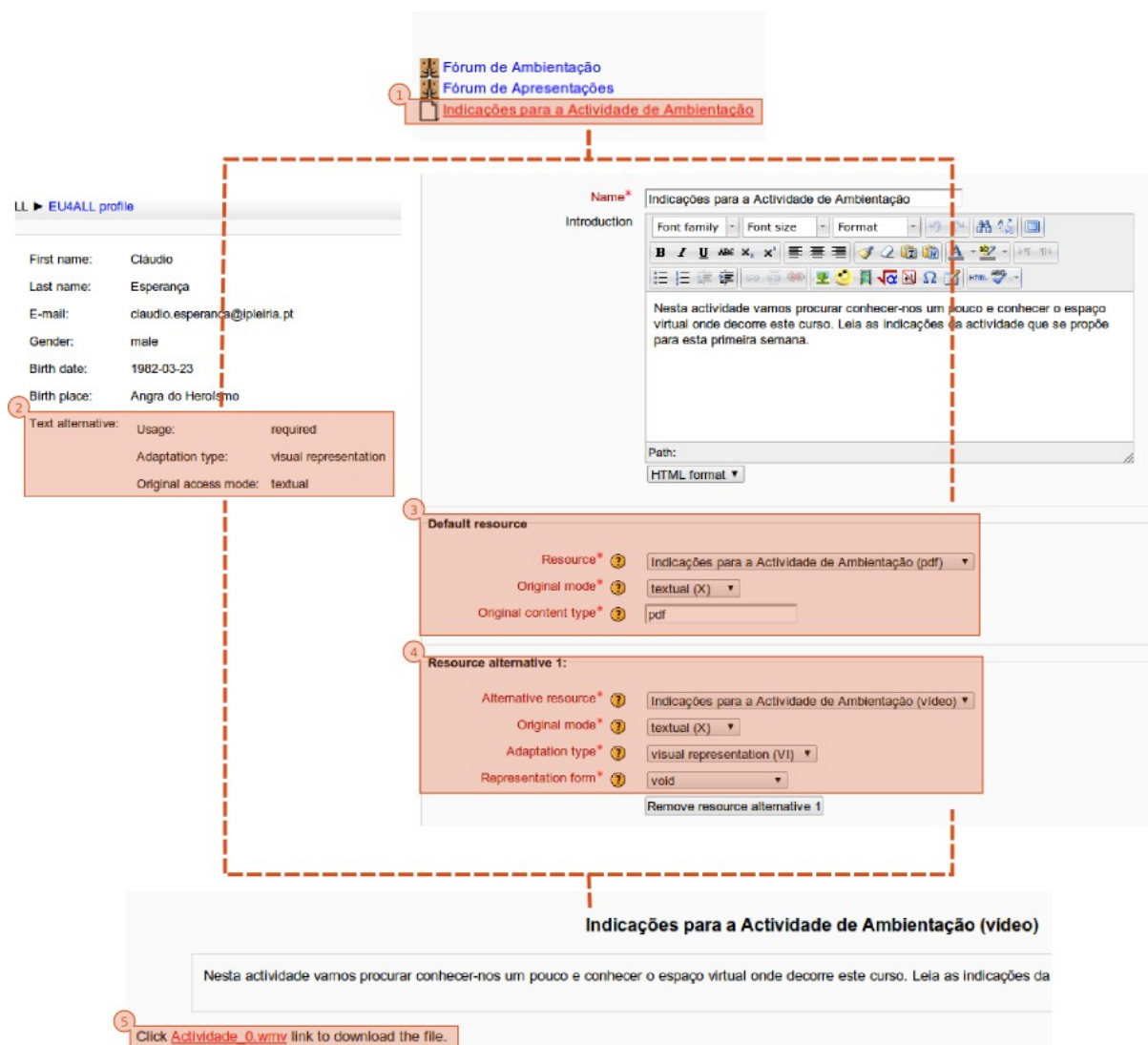


Figure 10: Content adaptation

1. The user clicks on a resource on the Moodle VLE (1).
2. The resource "adaptable" make a request to the EU4ALL central repository asking for the best resource for the user based on their accessibility preferences (2). If a better resource is found, the EU4ALL framework will return the identifier to that specific resource (4), otherwise the default resource identifier will be used (3).
3. The adaptable redirect the request for resource to be shown (5).