



Adaptive Language Training

User Manual and Software Documentation (O1-A10)

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Revision History

As the document changes the following table will be updated. The table tracks all changes and always shows the latest version of this document.

Table 1: Revision history table

Name	Date	Changes / Description	Version
AUTH	06/08/17	<ul style="list-style-type: none">Initial Document Release	V1.0
AUTH	09/09/17	<ul style="list-style-type: none">Updates in COMALAT Mobile App chapter	V1.0.1
USIEGEN	20/09/17	<ul style="list-style-type: none">Updates in COMALAT Authoring Tool	V1.0.2

1 COMALAT Guide Tool

The basic tool that we use to learn a new language in the COMALAT system is the Guide tool. The Guide Tool is a tool of the Sakai Learning Management System (<https://www.sakaiproject.org/>) that was used in COMALAT as the platform of choice for the development of the COMALAT-specific functionality. Many things in using COMALAT are just the same as in using Sakai, since usual Sakai tools such as the Calendar tool and the Announcements tool are just the same. In this guide, we will concentrate on describing the COMALAT specific functionality. For information about other tools that are part of the Sakai and consequently are available in COMALAT, users can read the Sakai Community documentation available at <http://sakai.screenstepslive.com>.

In any case a learner will first register with the system so that his/her progress can be monitored by the system. Notice that learning materials are separately available for usage outside the system as OERs, however the registration is essential so that the system can maintain the grades of the learner from the various activities, his or her profile information etc.

1.1 Users' registration and first steps

Users visit the COMALAT website (currently <http://www.comalat.eu/app>). Learners can click the button “New Account” on the welcome page to create a new account as can be seen in Figure 1.

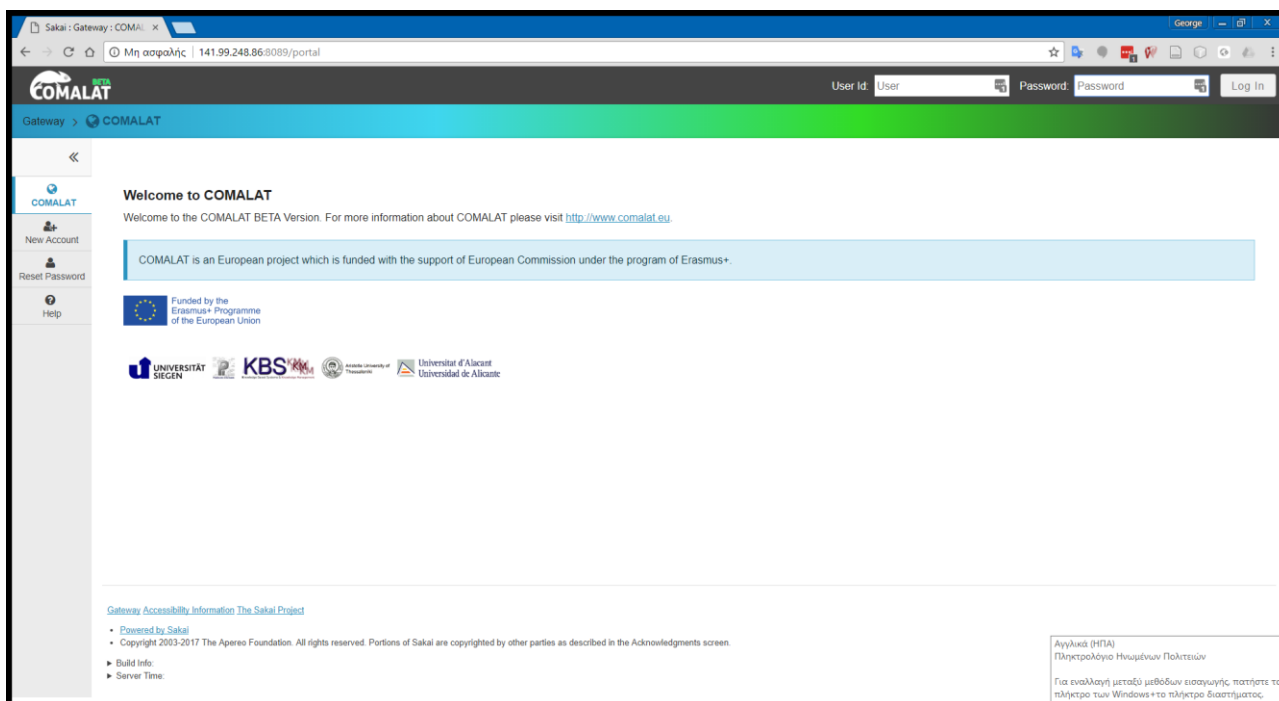


Figure 1: The Welcome Page of the COMALAT system

The learner will then see the “New Account” page where some initial information must be provided as depicted in Figure 2.

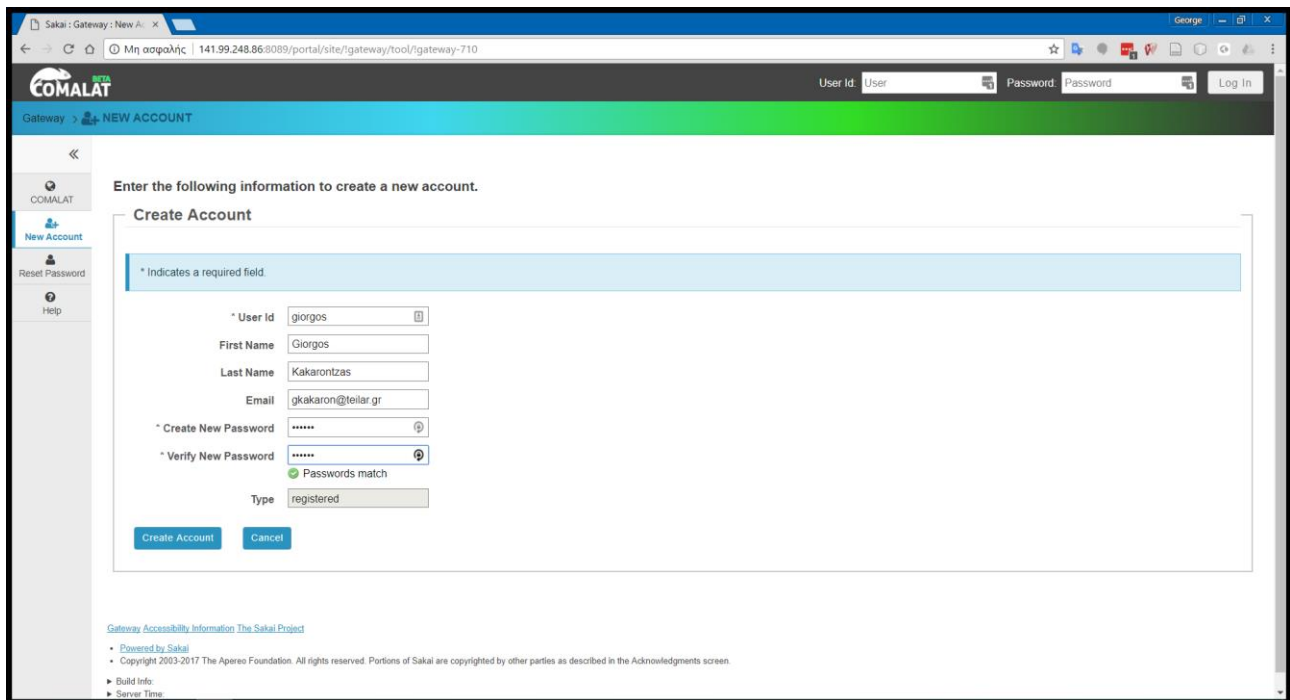


Figure 2: Create Account Page

After account creation, the learner will be automatically logged in for the first time. There he or she will see a home page where various Sakai tools will be available as depicted in Figure 3. These tools include the Sakai “Profile” tool which is accessed by clicking the “Profile” menu choice on the right-hand menu from which the user can change his/her profile information including his/her photograph, email, social connections with other learners etc.

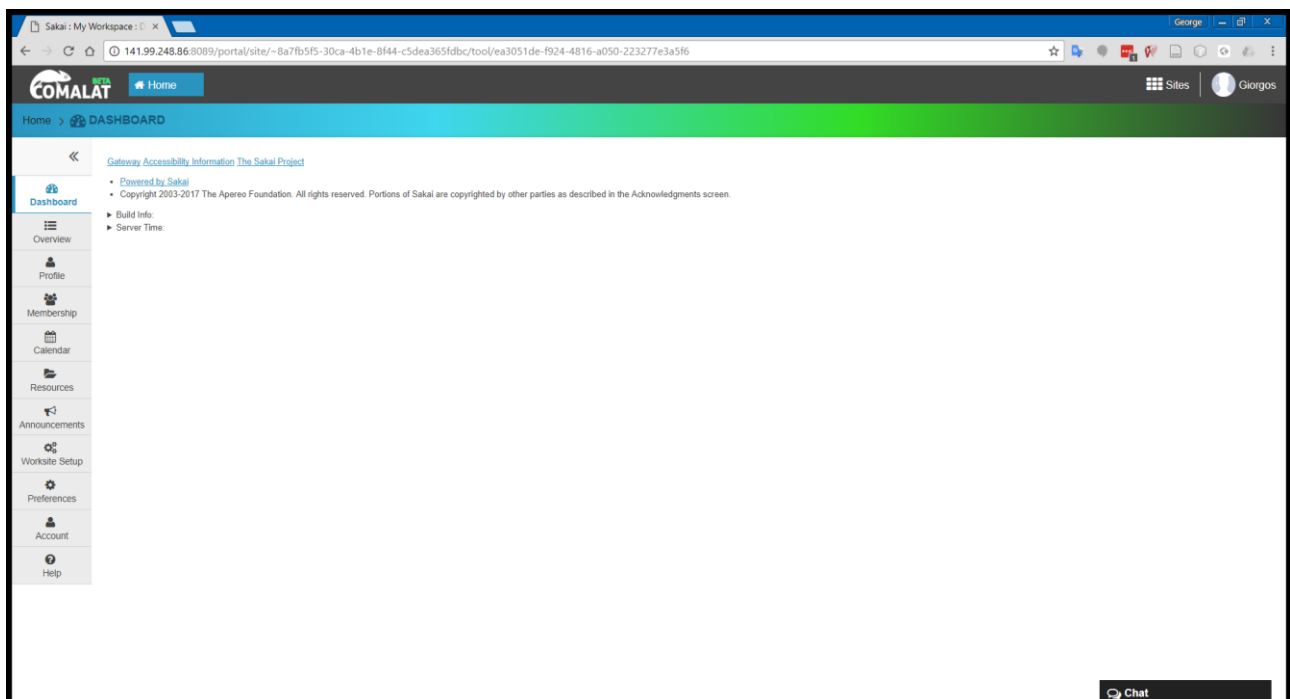


Figure 3: User's home page

For the purpose of language learning, learners will first click on the “Membership” button on the left-hand

menu. From this page they will see the option “Joinable Sites” denoting the sites that are available to users for joining. Among these sites are the various language courses available in COMALAT. Users can select the language course they want to follow and click on the “join” link underneath the site’s name. In this guide we will join the “Enseñanza de idiomas español” site to learn the Spanish language, but everything is identical for the other languages as well.

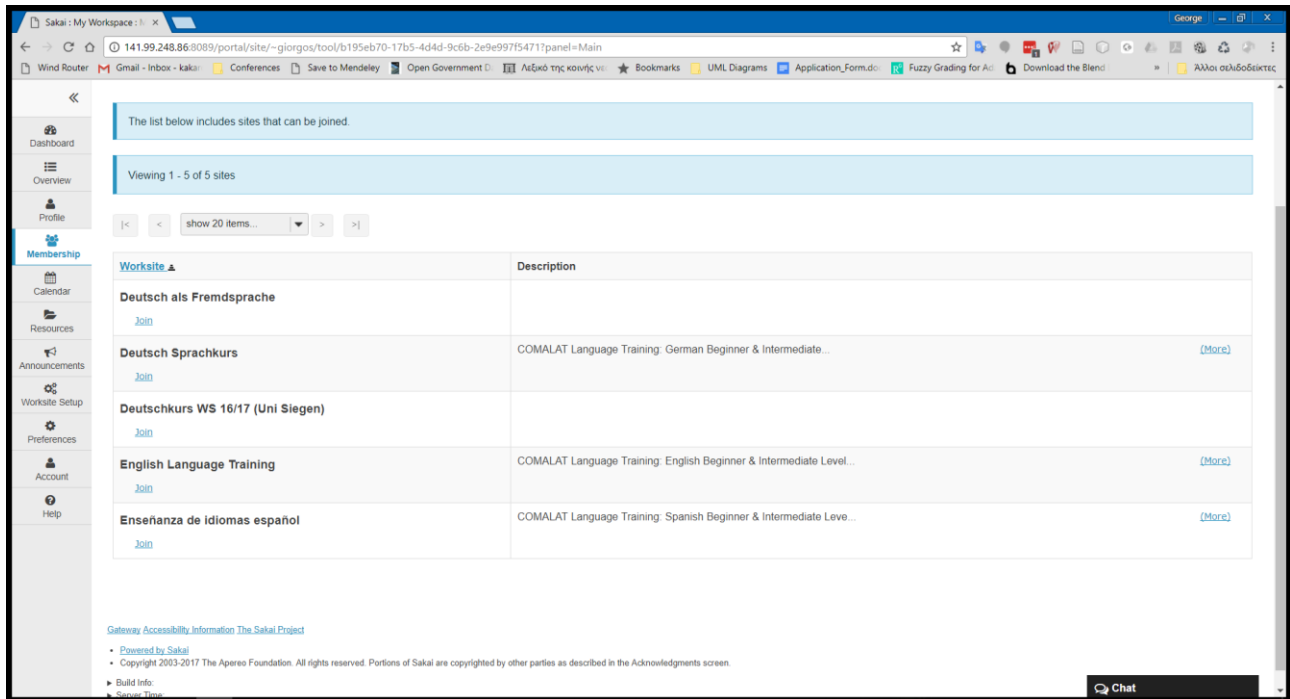


Figure 4: Sites the users can join

After a user has joined the wanted language, he or she can access this language by clicking the “Sites” button on the top right-hand corner. This will open the “Sites” selection window, which will now include the “Enseñanza de idiomas español” site since the user has joined this site. The user will click on the arrow next the title of the site to reveal the “COMALAT Guide” link. Then the user will click on this link to start learning (Figure 5). Alternatively, the user can click directly the “Enseñanza de idiomas español” link that will also open the “COMALAT Guide” tool since this tool has been set as the default tool for all the languages.

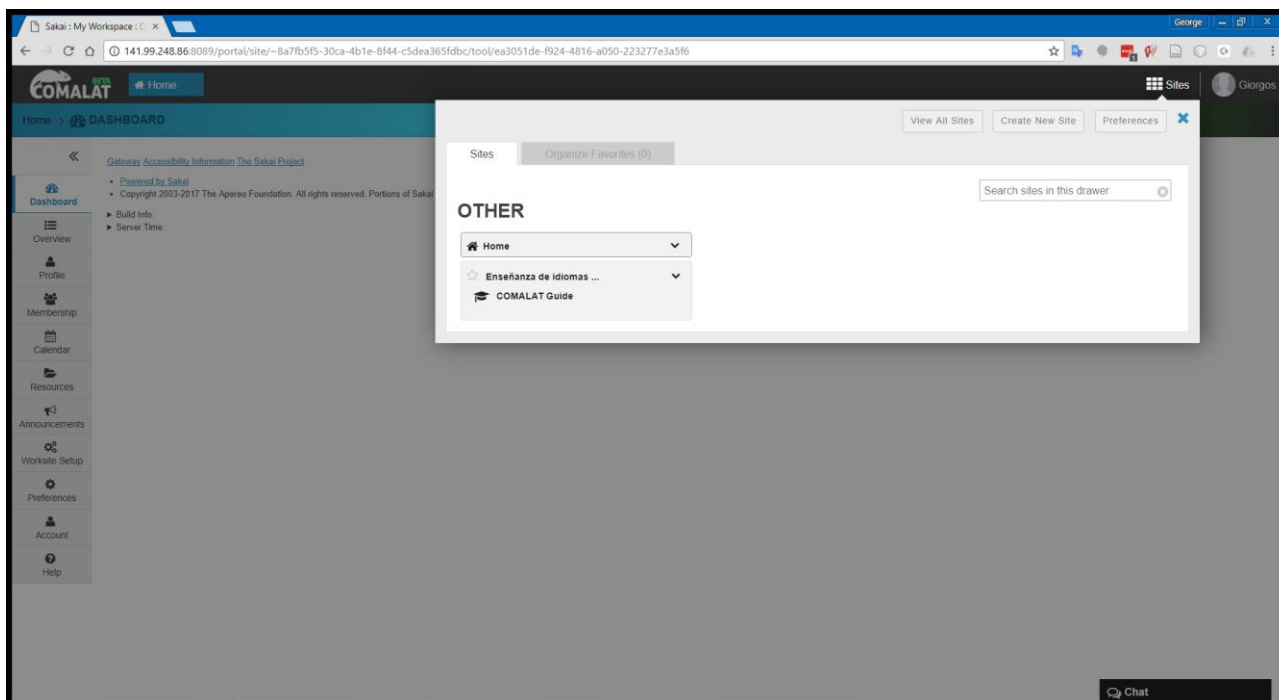


Figure 5: Site choice

The initial page of the COMALAT Guide tool is depicted in Figure 6. There the learner can see an Overview of his or her recent activities, progress and get recommendations of what to do next. Also by clicking on the Lessons button, a list with the available lessons for the current level (Beginner or Intermediate) is displayed.

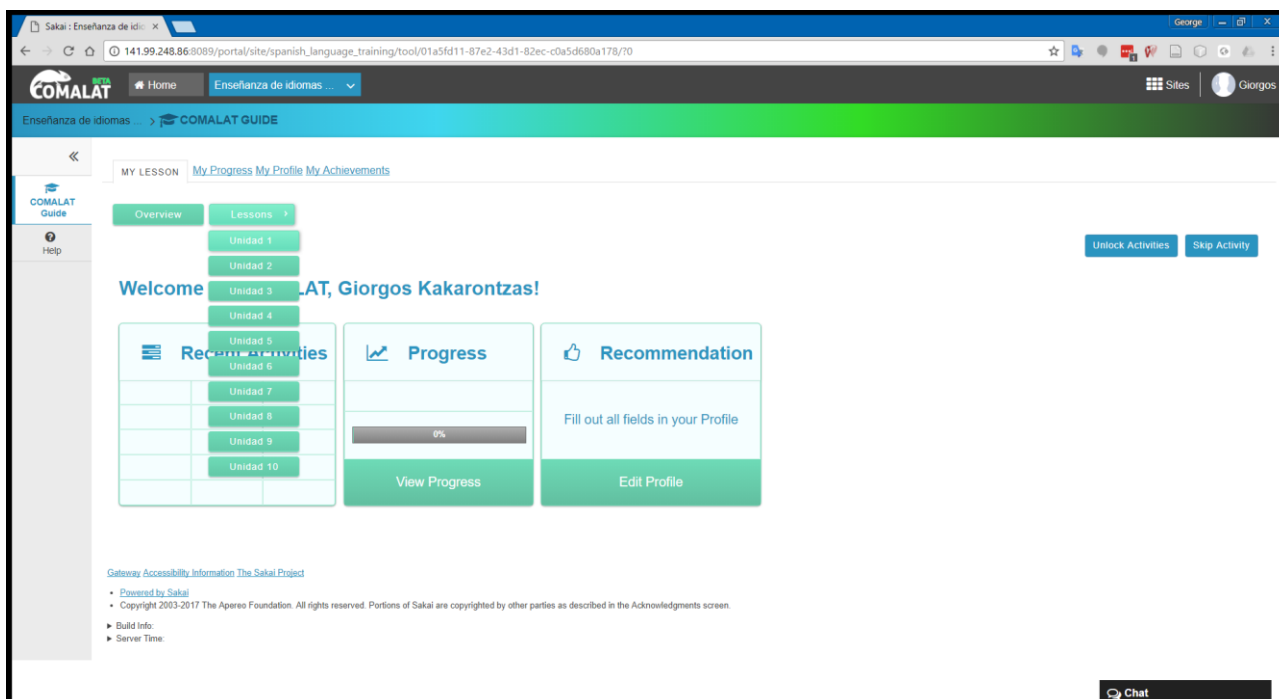


Figure 6: Initial page of the COMALAT Guide tool

It is worth mentioning that Sakai itself and the COMALAT tools are internationalised. Sakai supports a plethora of languages. COMALAT tools have been translated in English, Spanish and German and more translations will follow. The language can be selected by clicking the user name on the top right-hand side

corner and from there selecting Preferences. Then in the preferences page that appears the learner can click the “LANGUAGE” tab and select his or her preferred language for the user interface, as depicted in Figure 7. For the rest of this guide we will use the English language for the Sakai and COMALAT tools interface.

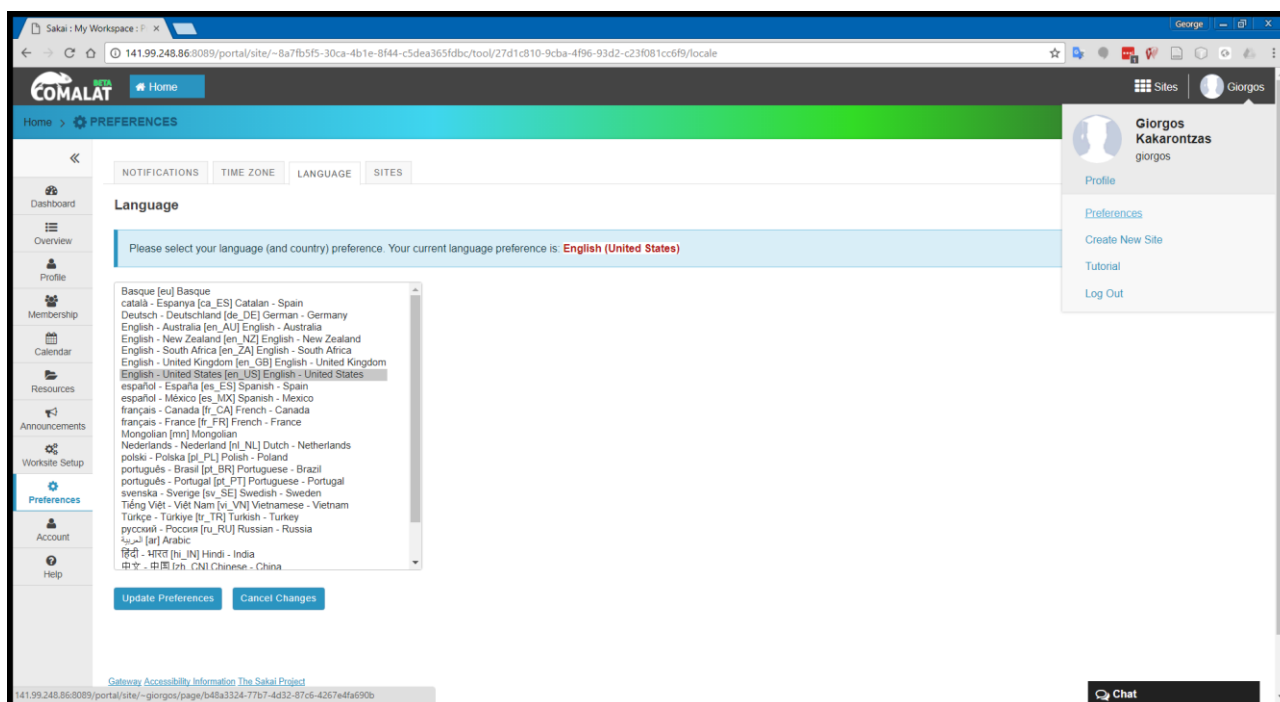


Figure 7: Changing the preferred language for the user interface

1.2 Changing the Profile Information

Initially the learner should access his or her COMALAT-specific Profile page by clicking the tab “My Profile” in the initial page (Figure 6) of the COMALAT Guide tool. The same is also recommended for the learner in the “Recommendation” of the “My Lesson” tab at the initial page where he can also click to access his or her profile (see Figure 6). From the “My Profile” page that is depicted in Figure 8 all information about the learner can be specified. Based on the chosen options and entered data different learning content is suggested as next lesson and test.

The details are related to:

- **Learning Objectives**
 - **Desired Language** (this cannot change since it is determined by the current site – for example for this tutorial is Spanish).
 - **Desired Difficulty Level:** Beginner, Intermediate
 - **Job-specific Preference:** Healthcare, Business, Tourism and Hospitality, Science and Technology (this is only displayed if the selected “Desired Difficulty Level” is Intermediate).
 - **Instruction Language:** It can be German, English, Spanish or Arabic and it is intended to signify the language to which the instructions, which are part of the learning material, will be displayed. It is worth noticing that the instruction language is only used at the Beginner level

where the learner does not have sufficient knowledge of the taught language to comprehend the instructions in that language. At the Intermediate level, the instruction language is the same as the taught language (e.g. Spanish if the learner learns Spanish).

- **Personal Information**

- **Gender**
- **Age**
- **Education Level**
- **Current Occupation**
- **Target Occupation**
- **Target place of residence**

After the learner has provided the requested information, he or she presses the “Update Preferences” button to save the provided information.

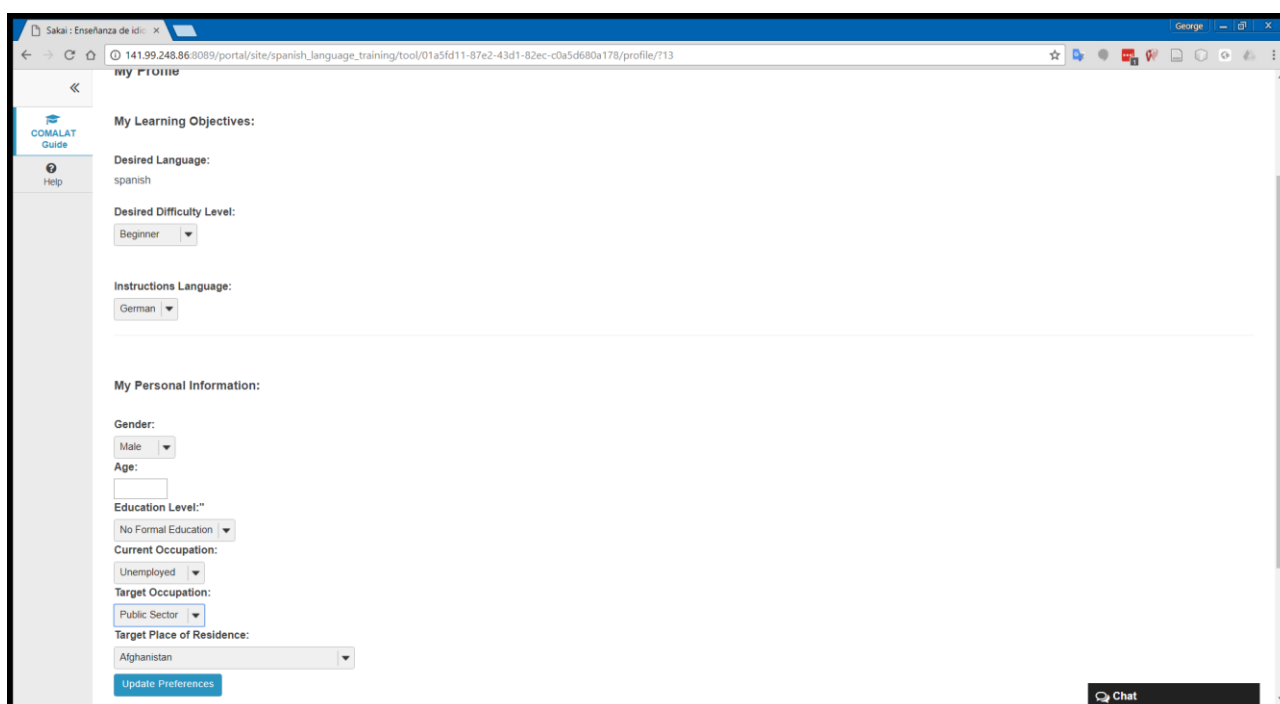


Figure 8: My Profile page

1.3 Start learning

At the initial page we first see the “My Lesson” tab from where we can access the lessons from the “Lessons” button. When the user selects a lesson the label of this button changes to the respective lesson. For example in Figure 9 we see that the user has selected “Unidad 1” (the first lesson in Spanish) and the first activity (“Actividad 1”) is unlocked for him or her. The activity is revealed when the learner clicks on the expand arrow at the right side of the activity border. When the learners complete successfully an activity then the next one appears.

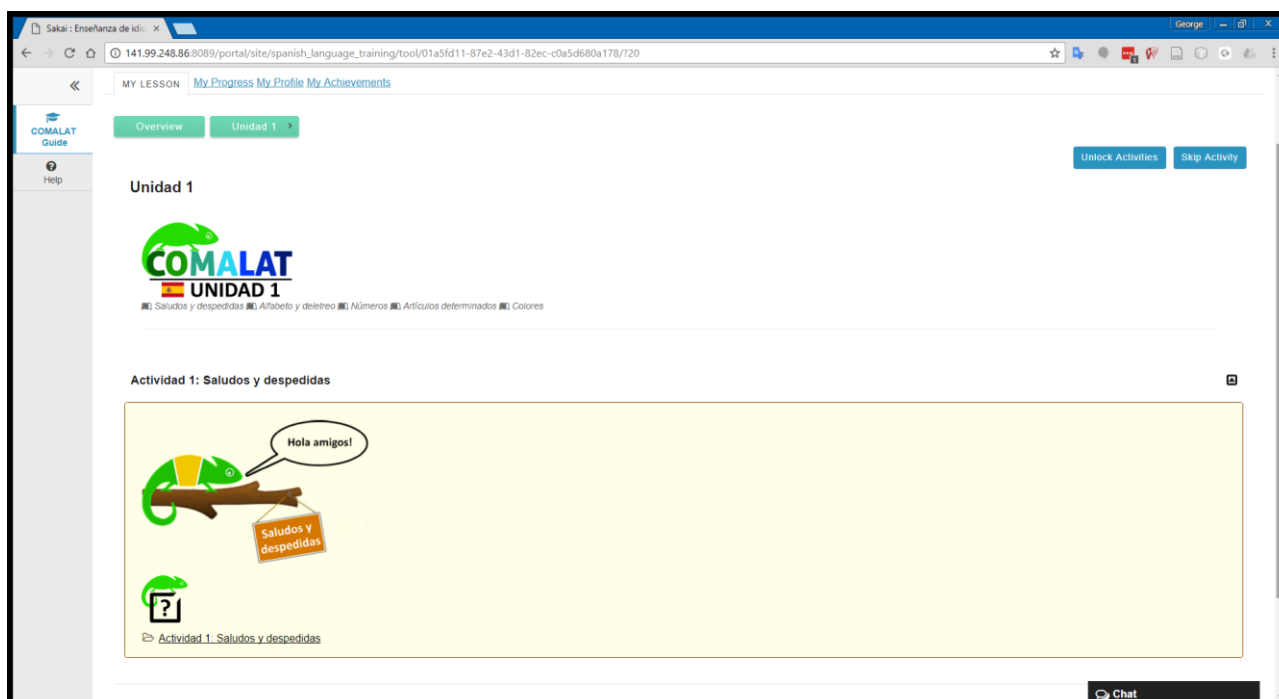


Figure 9: My Lesson page

The activity itself is accessed by clicking on the link of the activity (in Figure 9 the link is underneath the green COMALAT logo with the question mark).

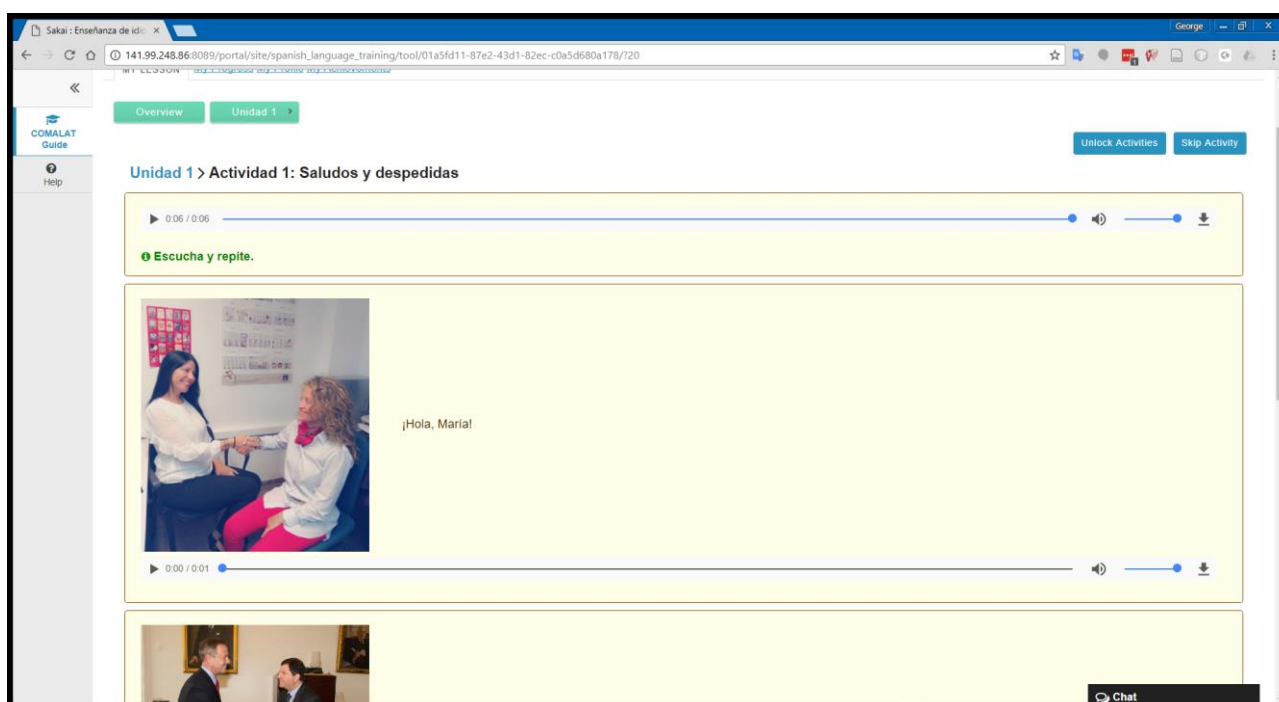


Figure 10: Performing an Activity

There are various types of activities. Some require just that the learner will listen to something and maybe repeat what he listened to (as in Figure 10). Other activities involve different types of questions (e.g. multiple choice, fill the gaps etc.). All activities are marked, however some activities are marked after the learner completes the activity (e.g. a listening activity) without passing some test.

After the learner has successfully completed an activity, he or she can view the next activity, which becomes now visible (e.g.)

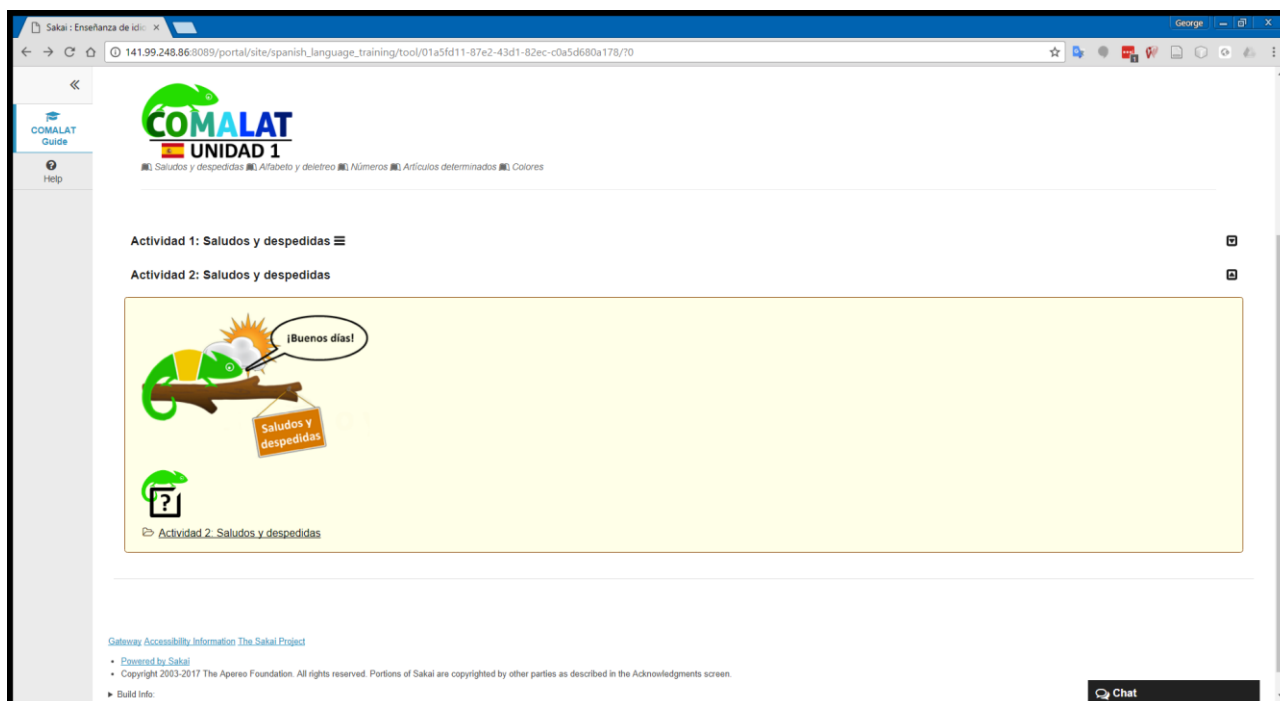


Figure 11: Progressing through the various activities

In Figure 12 we can see a multiple choice type of Activity where the users must select the correct answer.

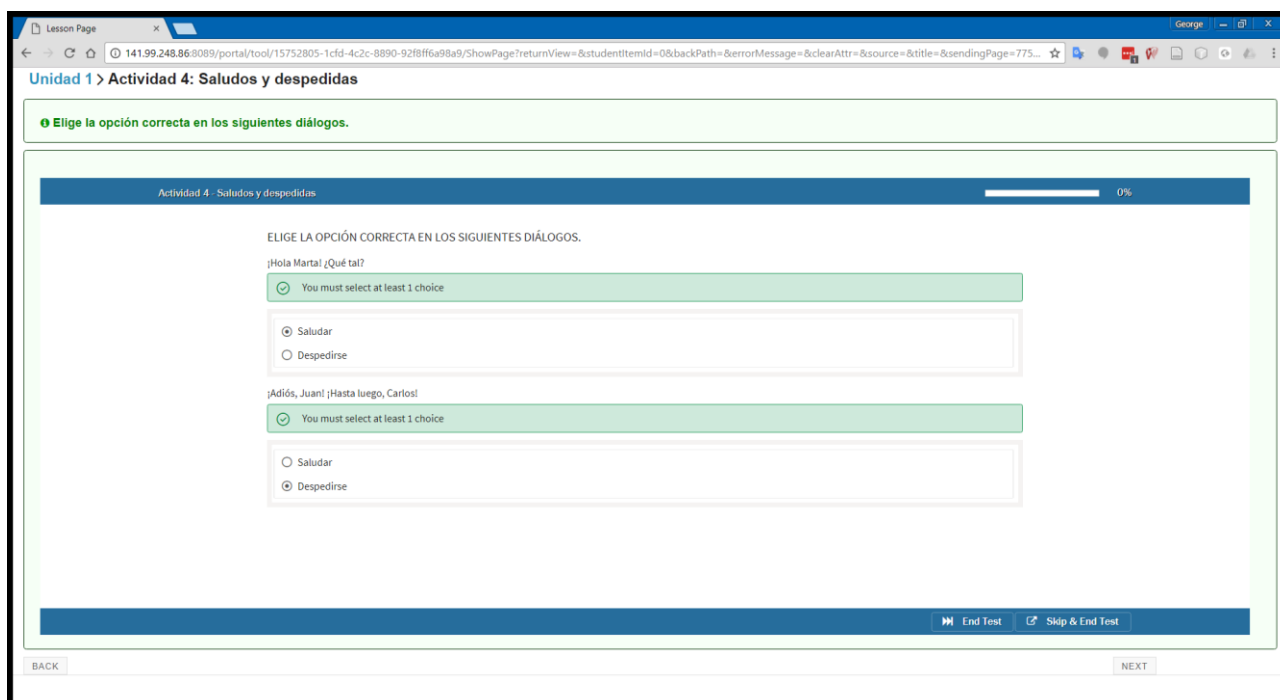


Figure 12: TAO Activities

Although these activities in Sakai are covered by a tool called Samigo, the majority of the activities in

COMALAT were created with an external testing system called TAO (<https://www.taotesting.com>). This was selected due to shortcomings Samigo had in relation to language learning (i.e. Samigo does not support all types of required activities).

1.4 Monitoring your progress

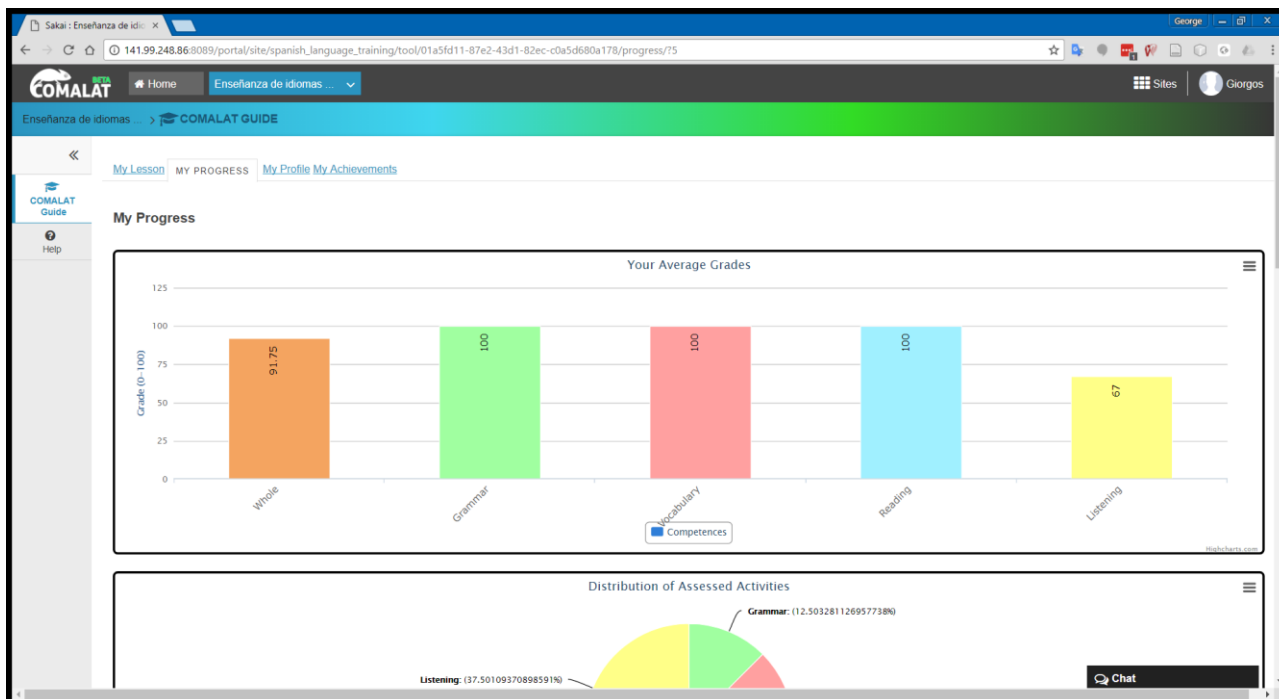


Figure 13: My Progress Page

The “My Progress” page (Figure 13) is intended for the visualization of the individual learning progress. Each learner has visualizations for his individual skills and weaknesses. The progress is visualized in various graphs:

- First the learner can view his or her average grades in assessed activities as a whole and per competence (Grammar, Vocabulary, Reading and Listening), as depicted in Figure 14.

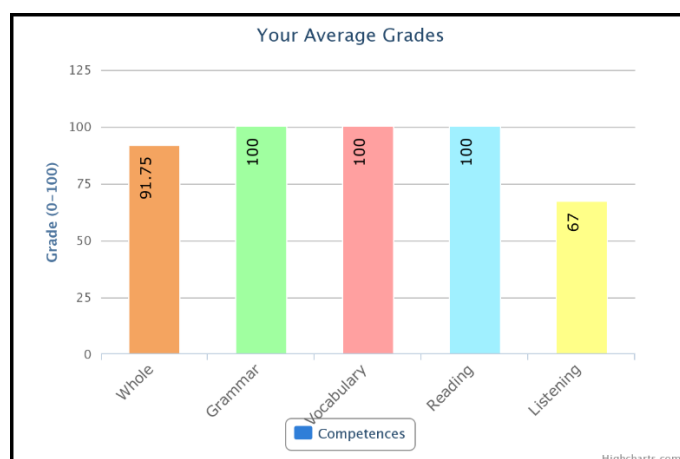


Figure 14: Average grades in assessed activities

- Then the learner can also see a percentage of the activities performed for each competence. For example in Figure 15, we can see that the user has completed so far equal number of Vocabulary, and Reading activities, more Listening activities and fewer Grammar activities.

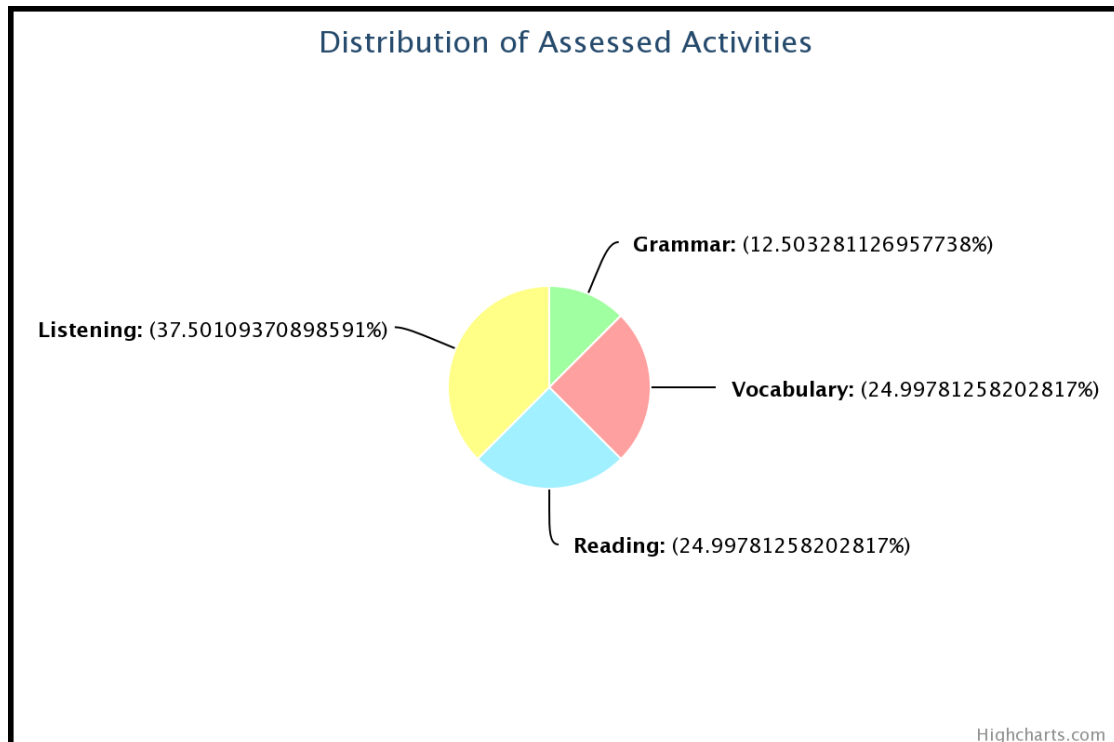


Figure 15: Distribution of assessed activities

- The learner can also compare the number of Assessed vs. Non-assessed activities that he or she performed so far. Furthermore, the number of assessed and non-assessed activities per skill (Grammar, Vocabulary, Listening and Reading) is also reported (Figure 16).

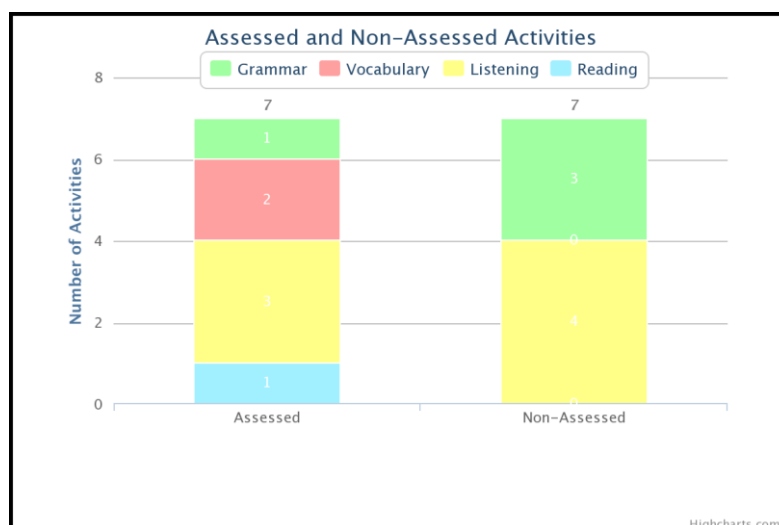


Figure 16: Assessed vs. Non-Assessed Activities

- Learners can also see their average grade in assessed activities in different topics, such as salutations and alphabet. The list of topics can be quite long although only two are depicted in the example in Figure 17.

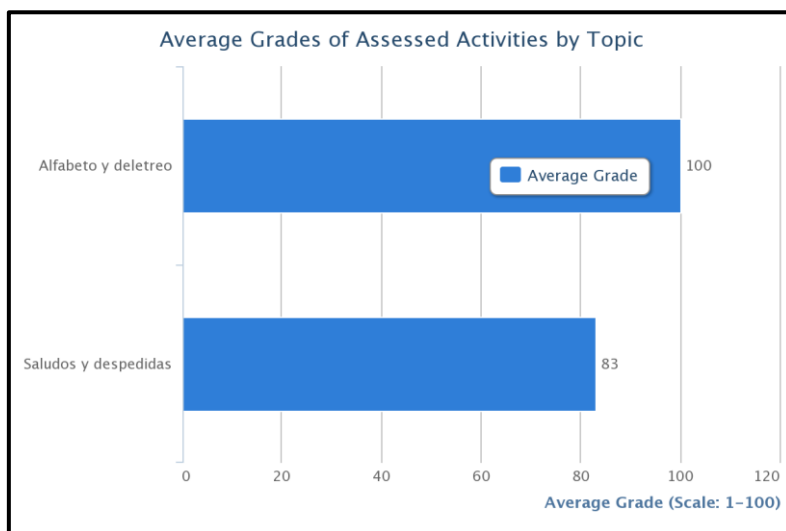


Figure 17: Average grades of assessed activities by topic

- Finally, the learners can also see their average grades in assessed activities by their selected language for specific purpose (Business, Health, Science & Technology and Tourism). This is relevant only for the Intermediate level, otherwise the chart will be empty like in Figure 18.

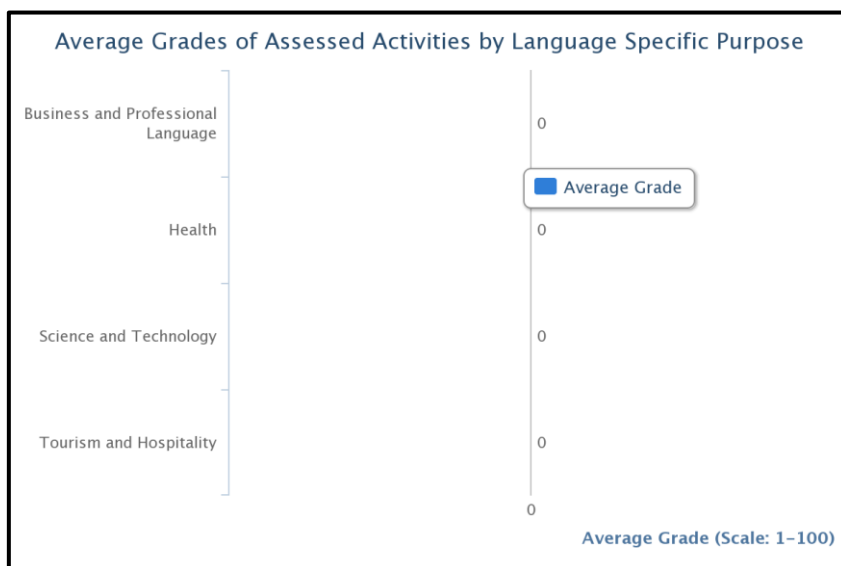


Figure 18: Average grades of assessed activities by LSP

From the bottom of the “My Progress” tab, learners can click on the “My Archetypal Analysis” link through which they will access an advanced statistical analysis which will compare their achievements in each different skill (Grammar, Vocabulary, Reading and Listening) with the achievements of other learners. Learners are clustered around three archetypes which are calculated automatically based on the grades of the students. The current student is then compared with the three archetypes and his or her similarity to each archetypal group of students is reported. This allows learners to understand how they compare to the rest of the students and find out which are their strengths and weaknesses (Figure 19).

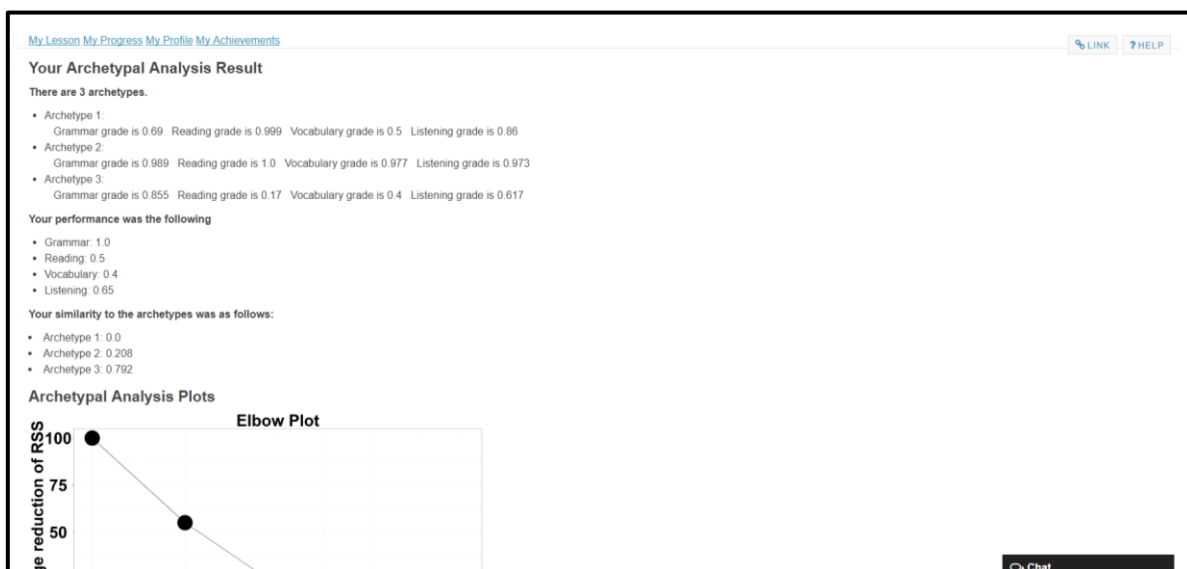


Figure 19: Archetypal analysis page

1.5 Learners' Achievements

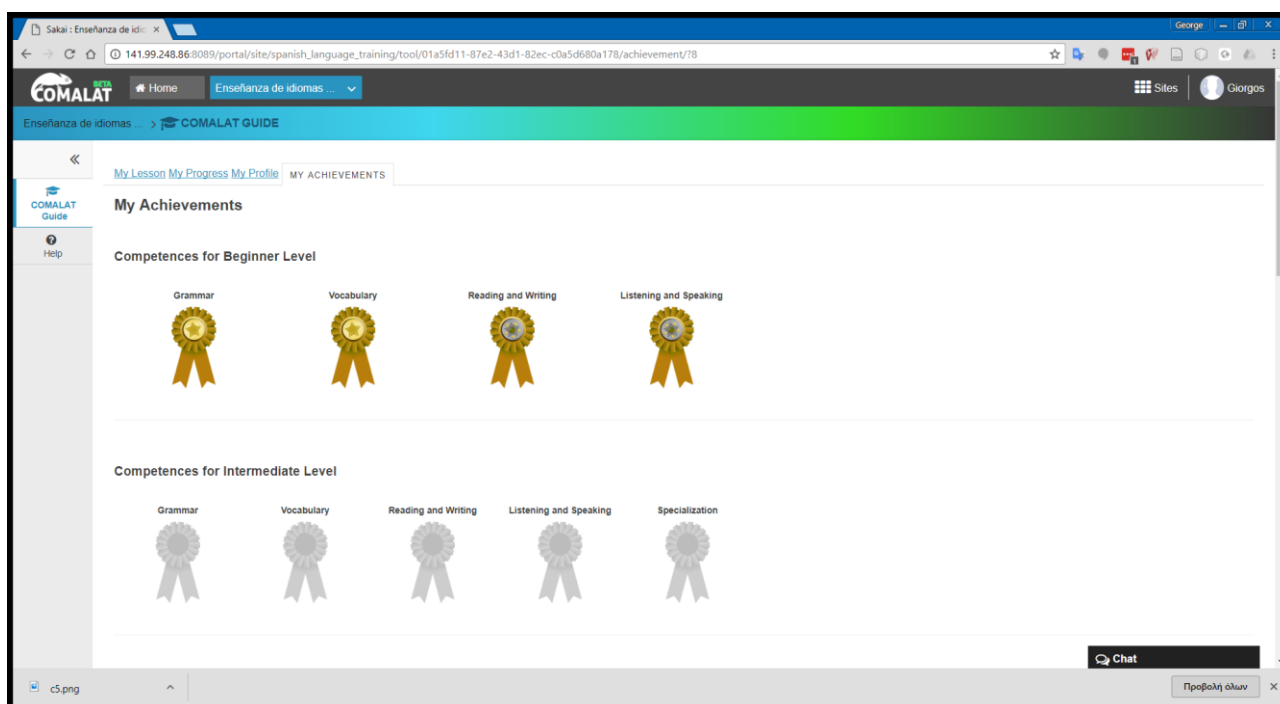


Figure 20: My Achievements Page

The “My Achievements” page will display various information regarding the learning success and progress of the learner. From time to time, the learner should be rewarded for learning on the COMALAT platform. The achievements are presented as badges that the learner collects for progressing in the various lessons, courses, and levels as depicted in Figure 20.

2 COMALAT Authoring Tool

The learning path is customized by the **instructor role** in the COMALAT System. In contrast to the normal user role (learner), instructors have access to the lessons and authoring tool. Customization of activities and tests can be done in these tools. The lessons tool is used to insert the learning materials and link the tests by using the LTI external connection to the test system TAO.

In the following the authoring tool is described in details for learning path customization.



The authoring tool is used to specify all information about available activities and tests in the COMALAT System. The authoring tool creates the COMALAT identifier for each piece of material by using the entries of the user.

These entries are "Name", "Number", "Score", "Lesson", "Path", "Competence", "Type", "Metadata", "DP", "NA", "Weighting", "Assessment", "Extra Activities", "Next Step", "Group Fail".

2.1 Video Tutorial

For the usage of the authoring tool please consult the following video tutorials and the accompanying powerpoint presentation:

Tutorial First Part (available via: <https://pic.informatik.uni-siegen.de/index.php/s/miPbEsdvUpRoUyn>)

Tutorial Second Part (available via: <https://pic.informatik.uni-siegen.de/index.php/s/miPbEsdvUpRoUyn>)

Slides (available via: <https://pic.informatik.uni-siegen.de/index.php/s/miPbEsdvUpRoUyn>)

The presentations have been given at the M24 COMALAT Transnational Meeting in Alicante in September 2016.

2.2 Activity Overview & Customization

The activity overview page is an administrative tool for the instructor role of the COMALAT System to customize the learning path and learning materials. An illustration is provided in Figure 6. The values and parameters used to customize the learning path are given in the following table.

Table 2: Activity Overview

Identifier	The identifier for each piece of learning materials. Automatically created by the system based on the other entries.
Name	The name of the activity.
Number	The number of the learning path position where the activity should be placed and appear.
Score	The maximum score of the activity which can be achieved.
Lesson	The lesson in which the activity should be placed.
Path	The general learning path. Available entries are: N (Normal), EX (Extra), F (Final), C (Course), L (Level)
Competence	The language competence for which an activity should be learned.
Type	The type of activity. Available entries are: P (Presentation) and A (Activity)

Metadata	The metadata tag for the activity. This can be freely chosen.
DP	DP means Decision Point and specifies if this activity is the last of a subsection in order to evaluate the learner and provide extra activities.
NA	NA means Not Assessed, if the activity is a presentation and is not assessed by fuzzy grading it is specified by using binary value 1 or 0.
Weighting	The weighting for each activity can be selected from a pre-defined Likert scale. The values are "Less Important", "Normal", "Important", "Very Important"
Assessment	The assessment field is a dropdown menu where identifiers of created assessments can be selected.
Extra Activities	The extra activities column is an experimental parameter where additional activities can be provided in a comma-separated way. It is currently not in use.
Next Step	The next step value is a comma-separated entry of COMALAT identifiers where the user should be placed for the next step in the learning path.
Group Fail	The group fail value is a comma-separated entry of COMALAT identifiers where the user should be placed for the case that a decision point has been failed (graded by fuzzy grading).

Language Training > COMALAT AUTHORIZING

ACTIVITIES Assessments Metadata Grade Threshold Feedback

Administration - Activities

Adjust Filter

Lesson Choose One Path Choose One Competence Choose One Type Choose One Weighting Choose One Metadata Choose One Set Filter Reset Filters

Activity Table

Identifier	Name	Item Number	Score	Lesson	Path	Competence	Type	Metadata	DP	NA	Weighting	Assessment	Extra Activities	Next Step	Group Fail
EN-L01-N-G-P-GREET-1	Activity 1: Greetings	1	1	L01	N	G	P	GREET	false	true	Normal			EN-L01-N-G-P-GREET-1-COMplete.EN-L01-N-G-A-GREET-2-INCOMPLETE.EN-L01-N-G-A-GREET-2	Edit Delete
EN-L01-N-G-A-GREET-2	Activity 2: Greetings	2	5	L01	N	G	A	GREET	false	false	Normal			EN-L01-N-G-P-GREET-3.EN-L01-N-G-P-GREET-3-INCOMPLETE.EN-L01-N-G-A-GREET-2-COMplete	Edit Delete
EN-L01-N-G-P-GREET-3	Activity 3: Greetings	3	1	L01	N	G	P	GREET	false	true	Normal			EN-L01-N-G-P-GREET-3-COMplete.EN-L01-N-G-A-GREET-4-INCOMPLETE.EN-L01-N-G-A-GREET-4	Edit Delete
EN-L01-N-G-A-GREET-4	Activity 4: Greetings	4	4	L01	N	G	A	GREET	false	false	Normal			EN-L01-N-G-A-GREET-4-COMplete.EN-L01-N-G-A-GREET-4	Edit Delete

Figure 21: Administration Overview of Activities in the COMALAT Authoring Tool

2.3 Assessment Overview & Customization

The assessment overview page is an administrative tool for the instructor role of the COMALAT System to customize the final tests, course tests and level tests in the learning path. These tests are collections of activities. An illustration is provided in Figure 7. The values and parameters used to customize the tests are given in the following table.

Table 3: Assessment Overview

Identifier	The identifier of the assessment (which can be a collection of activities). Automatically created by the system based on the other entries.
-------------------	---

Name	The name of the assessment.
Number	The number of the learning path position where the assessment should be placed and appear.
Score	The maximum total score of the assessment which can be achieved.
Lesson	The lesson in which the assessment should be placed.
Path	The general learning path. Available entries are: F (Final), C (Course), L (Level)
Next Step	The next step value is a comma-separated entry of COMALAT identifiers where the user should be placed for the next step in the learning path.
Group Fail	The group fail value is a comma-separated entry of COMALAT identifiers where the user should be placed for the case that the assessment has been failed (graded by fuzzy grading).

Training > COMALAT AUTHORIZING

[Aktivitäten](#) [ABSCHLUSSTESTS](#) [Metadaten](#) [Notenschwellen](#) [Feedback](#)

Administration - Assessments

Assessment Table

Identifier	Name	Number	Score	Next Step	Group Fail	Lesson	Path	
EN-L16-F-1	Lesson 16: Final Test	1	15			L16	F	Editieren Löschen
EN-L17-F-1	Lesson 17: Final Test	1	15			L17	F	Editieren Löschen
EN-L18-F-1	Lesson 18: Final Test	1	15			L18	F	Editieren Löschen
EN-L19-F-1	Lesson 19: Final Test	1	15			L19	F	Editieren Löschen
EN-L15-C-1	Course 3: Final Test	1	15			L15	C	Editieren Löschen
EN-L01-F-1	Lesson 1: Final Test	1	15	EN-L01-F-1-COMplete, EN-L02-N-G-P-SX-1, EN-L02-N-G-P-SX-1-INCOMPLETE		L01	F	Editieren Löschen
EN-L02-F-1	Lesson 2: Final Test	1	15	EN-L02-F-1-COMplete, EN-L03-N-G-P-PRSA-1, EN-L03-N-G-P-PRSA-1-INCOMPLETE		L02	F	Editieren Löschen
EN-L03-F-1	Lesson 3: Final Test	1	15	EN-L03-F-1-COMplete, EN-L04-N-G-P-PRSN-1, EN-L04-N-G-P-PRSN-1-INCOMPLETE		L03	F	Editieren Löschen

Figure 22: Administration Overview of Assessments in the COMALAT Authoring Tool

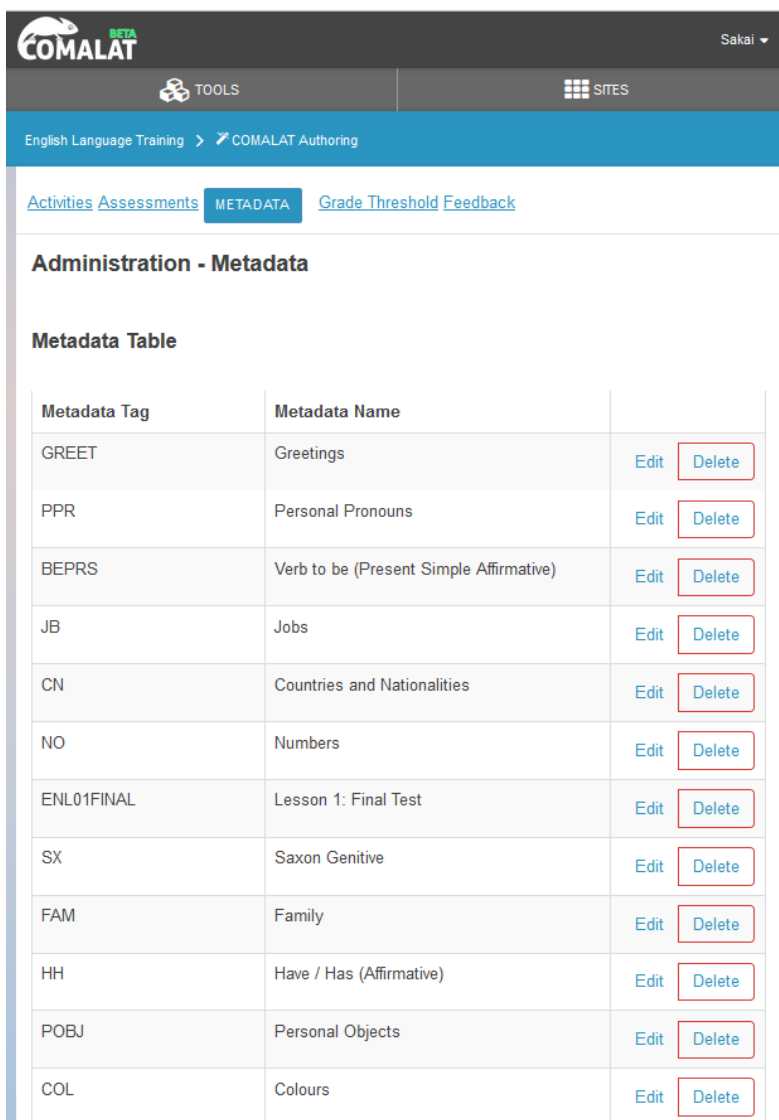
2.4 Metadata Overview

The metadata overview page is an administrative tool for the instructor role of the COMALAT System to customize the metadata from activities in the learning path. An illustration is provided in Figure 8. The values and parameters used to customize the tests are given in the following table.

Table 4: Metadata Overview

Metadata Tag	The tag which is used to identify a subsection in the COMALAT System. Entries can be freely chosen. A general guideline is to use capital letters (with numbers), but no special characters. Example: GREET, NUM, JOB, SHOP, etc.
Metadata Name	The full name of the subsection in the target language.
Language	The language parameter which is automatically set in the background of the system to create language-specific entries, like G – Grammar (EN), G – Gramática (ES), G –

	Grammatik (DE).
--	-----------------



The screenshot shows the 'Administration - Metadata' page in the COMALAT Authoring Tool. The page has a dark header with the COMALAT logo and 'Sakai' in the top right. Below the header is a navigation bar with 'TOOLS' and 'SITES' icons. The main content area has a blue header with 'English Language Training' and 'COMALAT Authoring'. Below this is a sub-header with 'Activities', 'Assessments', 'METADATA' (highlighted), and 'Grade Threshold Feedback'. The main content is titled 'Administration - Metadata' and contains a 'Metadata Table' with 12 rows. Each row has a 'Metadata Tag', a 'Metadata Name', and two buttons: 'Edit' and 'Delete'.

Metadata Tag	Metadata Name	
GREET	Greetings	Edit Delete
PPR	Personal Pronouns	Edit Delete
BEPRS	Verb to be (Present Simple Affirmative)	Edit Delete
JB	Jobs	Edit Delete
CN	Countries and Nationalities	Edit Delete
NO	Numbers	Edit Delete
ENL01FINAL	Lesson 1: Final Test	Edit Delete
SX	Saxon Genitive	Edit Delete
FAM	Family	Edit Delete
HH	Have / Has (Affirmative)	Edit Delete
POBJ	Personal Objects	Edit Delete
COL	Colours	Edit Delete

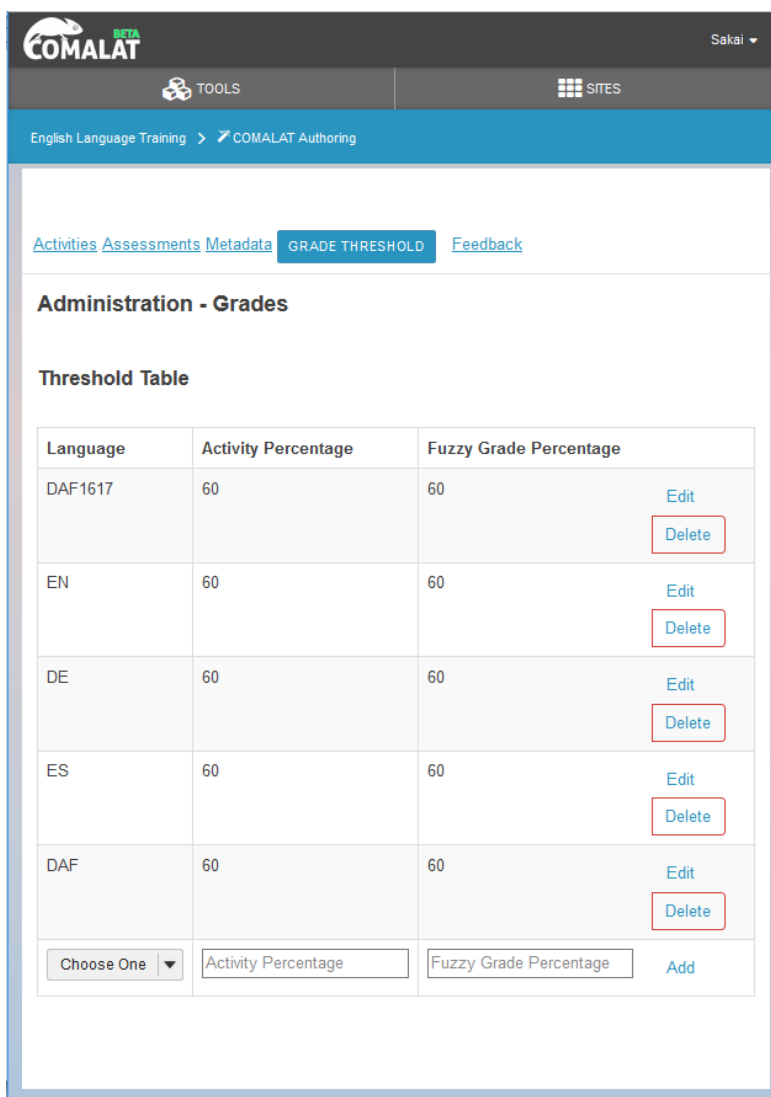
Figure 23: Administration Overview of Metadata in the COMALAT Authoring Tool

2.5 Grade Threshold Setting

The grade threshold setting page is an administrative tool for the instructor role of the COMALAT System to customize the grading thresholds for fuzzy grading. An illustration is provided in Figure 8. The values and parameters used to customize the tests are given in the following table.

Table 5: Grade Threshold Overview

Language	A language code to separate different grading thresholds for different languages.
Activity Percentage	The average percentage for grading. This is a default value, if there are less than 100 grades in the system to apply fuzzy grading.
Fuzzy Grade Percentage	The percentage at which fuzzy grading should be applied and analyze borderline grading cases.



English Language Training > COMALAT Authoring

Activities Assessments Metadata **GRADE THRESHOLD** Feedback

Administration - Grades

Threshold Table

Language	Activity Percentage	Fuzzy Grade Percentage
DAF1617	60	60
EN	60	60
DE	60	60
ES	60	60
DAF	60	60

Choose One Activity Percentage Fuzzy Grade Percentage Add

Figure 24: Administration Overview of Grading Threshold in the COMALAT Authoring Tool

2.6 Modal Feedback

The modal feedback page is an administrative tool for the instructor role of the COMALAT System to customize the feedback which is given after activities and tests have been evaluated by fuzzy grading.

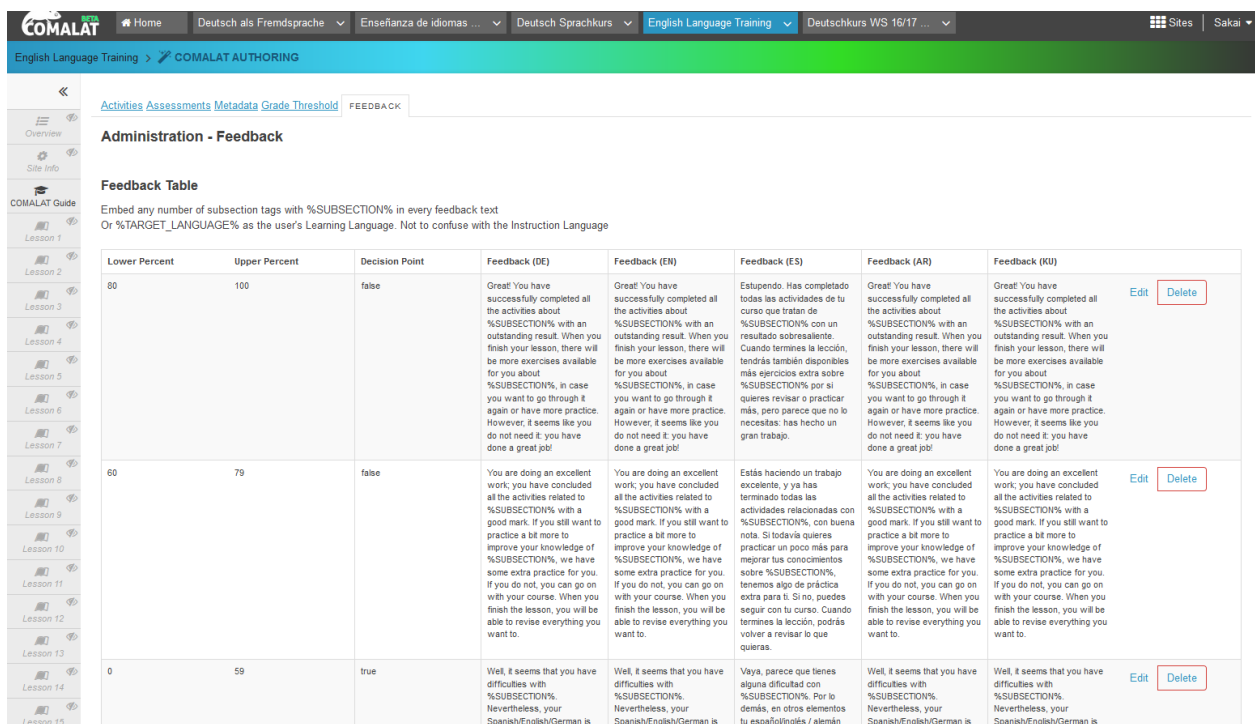
Notice: The current subsection metadata name can be inserted into the feedback text by using %SUBSECTION%.

Notice: The current target language can be inserted into the feedback text by using %TARGET_LANGUAGE%. However, this is not the instruction language! The correct translation (feedback version) for the feedback is automatically recognized by the COMALAT System based on the user's preferences.

An illustration is provided in Figure 8. The values and parameters used to customize the tests are given in the following table.

Table 6: Feedback Overview

Lower Percent	The lower percentage level at which the feedback should be provided.
Upper Percent	The upper percentage level at which the feedback should be provided.
Decision Point	True / False. This value decides if the feedback should be applied in regular activities or only decision points.
Feedback (DE)	The German translation of the feedback.
Feedback (EN)	The English translation of the feedback.
Feedback (ES)	The Spanish translation of the feedback.
Feedback (AR)	The Arabic translation of the feedback.
Feedback (KU)	The Kurdish translation of the feedback.



The screenshot shows the 'Administration - Feedback' section of the COMALAT Authoring Tool. It features a sidebar with navigation options like Overview, Site Info, and Lesson 1 through Lesson 15. The main content area displays a 'Feedback Table' with columns for Lower Percent, Upper Percent, Decision Point, and feedback translations in German (DE), English (EN), Spanish (ES), Arabic (AR), and Kurdish (KU). Each row represents a feedback entry with specific percentage thresholds and decision points, and includes 'Edit' and 'Delete' buttons for each entry.

Lower Percent	Upper Percent	Decision Point	Feedback (DE)	Feedback (EN)	Feedback (ES)	Feedback (AR)	Feedback (KU)	
80	100	false	Great! You have successfully completed all the activities about %SUBSECTION%. With an outstanding result. When you finish your lesson, there will be more exercises available for you about %SUBSECTION%, in case you want to go through it again or have more practice. However, it seems like you do not need it: you have done a great job!	Great! You have successfully completed all the activities about %SUBSECTION% with an outstanding result. When you finish your lesson, there will be more exercises available for you about %SUBSECTION%, in case you want to go through it again or have more practice. However, it seems like you do not need it: you have done a great job!	Estupendo. Has completado todas las actividades de tu curso que tratan de %SUBSECTION% con un resultado sobresaliente. Cuando termines la lección, tendrás también disponibles más ejercicios extra sobre %SUBSECTION% por si quieres revisar o practicar más, pero parece que no lo necesitas: has hecho un gran trabajo.	Great! You have successfully completed all the activities about %SUBSECTION% with an outstanding result. When you finish your lesson, there will be more exercises available for you about %SUBSECTION%, in case you want to go through it again or have more practice. However, it seems like you do not need it: you have done a great job!	Great! You have successfully completed all the activities about %SUBSECTION% with an outstanding result. When you finish your lesson, there will be more exercises available for you about %SUBSECTION%, in case you want to go through it again or have more practice. However, it seems like you do not need it: you have done a great job!	Edit Delete
60	79	false	You are doing an excellent work; you have concluded all the activities related to %SUBSECTION% with a good mark. If you still want to practice a bit more to improve your knowledge of %SUBSECTION%, we have some extra practice for you. If you do not, you can go on with your course. When you finish the lesson, you will be able to revise everything you want to.	You are doing an excellent work; you have concluded all the activities related to %SUBSECTION% with a good mark. If you still want to practice a bit more to improve your knowledge of %SUBSECTION%, we have some extra practice for you. If you do not, you can go on with your course. When you finish the lesson, you will be able to revise everything you want to.	Estás haciendo un trabajo excelente, y ya has terminado todas las actividades relacionadas con %SUBSECTION%, con buena nota. Si todavía quieres practicar un poco más para mejorar tus conocimientos sobre %SUBSECTION%, tenemos algo de práctica extra para ti. Si no, puedes seguir con tu curso. Cuando termines la lección, podrás volver a revisar lo que quieras.	You are doing an excellent work; you have concluded all the activities related to %SUBSECTION% with a good mark. If you still want to practice a bit more to improve your knowledge of %SUBSECTION%, we have some extra practice for you. If you do not, you can go on with your course. When you finish the lesson, you will be able to revise everything you want to.	You are doing an excellent work; you have concluded all the activities related to %SUBSECTION% with a good mark. If you still want to practice a bit more to improve your knowledge of %SUBSECTION%, we have some extra practice for you. If you do not, you can go on with your course. When you finish the lesson, you will be able to revise everything you want to.	Edit Delete
0	59	true	Well, it seems that you have difficulties with %SUBSECTION%. Nevertheless, your Spanish/English/German is	Well, it seems that you have difficulties with %SUBSECTION%. Nevertheless, your Spanish/English/German is	Vaya, parece que tienes alguna dificultad con %SUBSECTION%. Por lo demás, en otros elementos tu español/inglés / alemán	Well, it seems that you have difficulties with %SUBSECTION%. Nevertheless, your Spanish/English/German is	Well, it seems that you have difficulties with %SUBSECTION%. Nevertheless, your Spanish/English/German is	Edit Delete

Figure 25: Administration Overview of Modal Feedback in the COMALAT Authoring Tool

3 COMALAT Mobile App

End users will have a choice to store learning material on their smart-phones. In this way, users will be able to learn when they are on the move and also when they are offline. For offline use, the system will provide access to selected parts of the learning content that users can select and download when they are online and then access it directly through their device when they are offline.

In the following we describe the COMALAT mobile application for Android smartphones and tablets.

3.1 Login

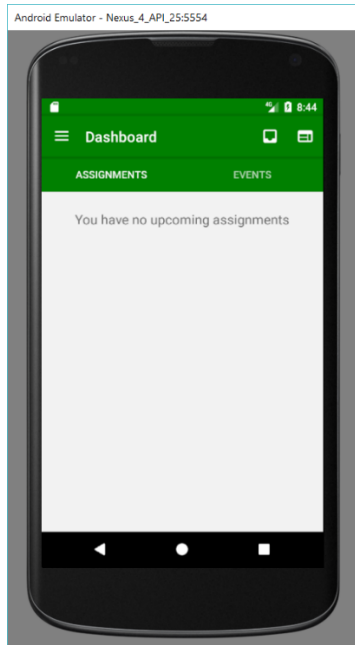
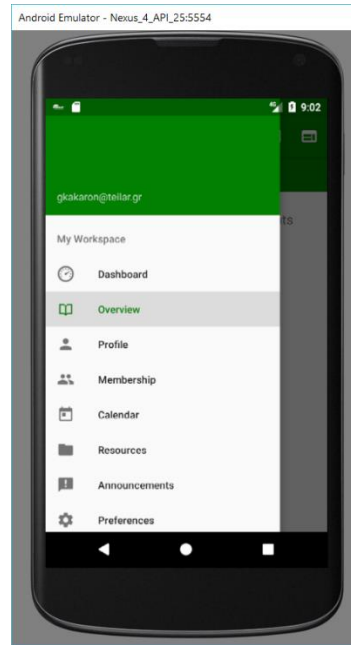
The learner can use this functionality of the COMALAT app to login to the remote system. He or she provides the same username/password combination for the COMALAT web application and presses the login button. This functionality requires connection to the remote site so that the credentials can be approved from the server.



Figure 26: Login screen of the mobile app

3.2 Main Menu

Once the user has logged in he can see his or her dashboard (Figure 27) and from the hamburger button on the top left-hand side he or she can access the main menu (Figure 28).

*Figure 27: Dashboard**Figure 28: Main menu*

3.3 User Account

The user can edit the details of his/her account from the “Account” menu option near the end of the menu. These details include things such as the real name, email, and password. The learner initially views this information but by pressing the pencil icon, he or she can edit the displayed values. He or she can also modify the current password (Figure 29). The details are saved on the server when the user presses “Save Changes”.

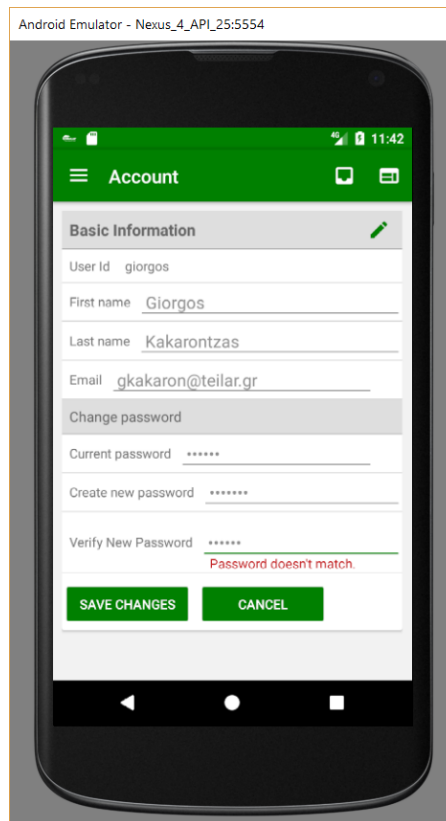


Figure 29: User account

3.4 User Profile

Various pieces of information relating to the profile of the user can be accessed through the “Profile” menu item, including:

- Basic information
- Contact Information
- Staff Information
- Student Information
- Social Networking
- Personal Information

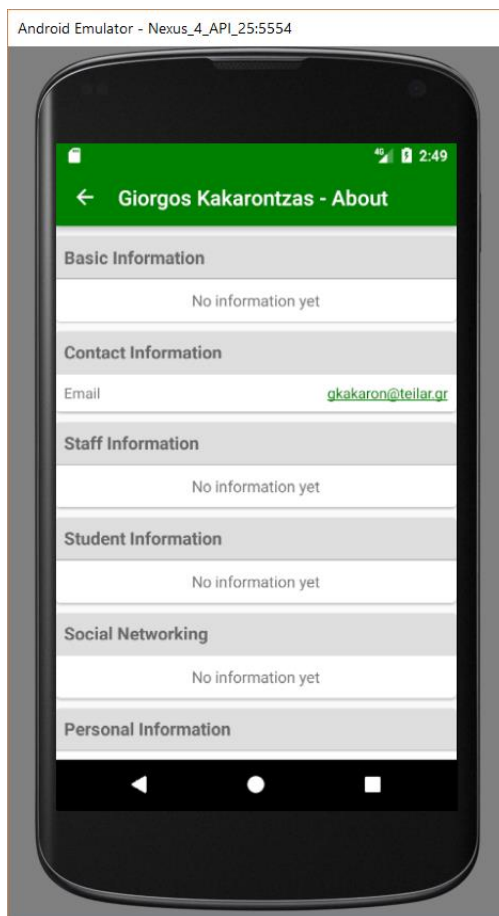


Figure 30: User Profile

3.5 Membership

From the menu choice “Membership” the learner can access the sites to which he has already registered via the web applications, as can be seen in Figure 31. For example, in Figure 31, there is access to the Spanish language. The user can click on the “Tap for More” link underneath the desired site and start learning the respective language as usual in the same way that this is done via the web application (see Figure 32).

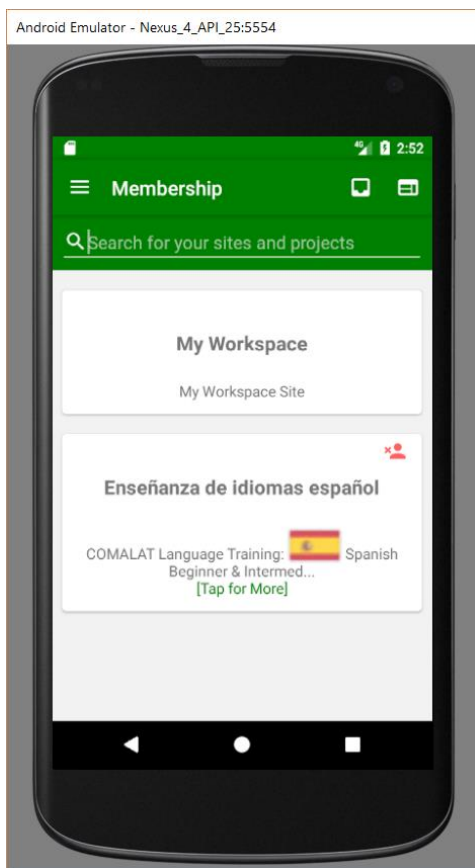


Figure 31: Membership

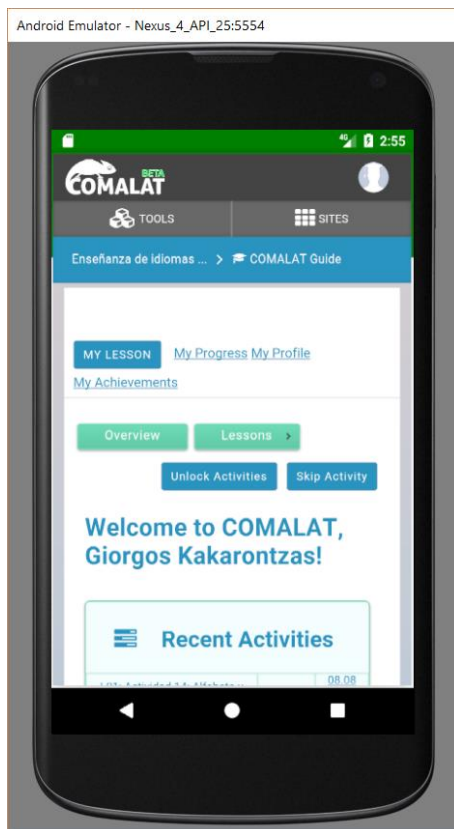


Figure 32: Access to the lessons in the mobile app

3.6 Additional functionality of the mobile app

Some additional functionality of the mobile app includes the ability to:

- View calendar events (Figure 33)
- View announcements (Figure 34)
- Create a new user account (Figure 35)

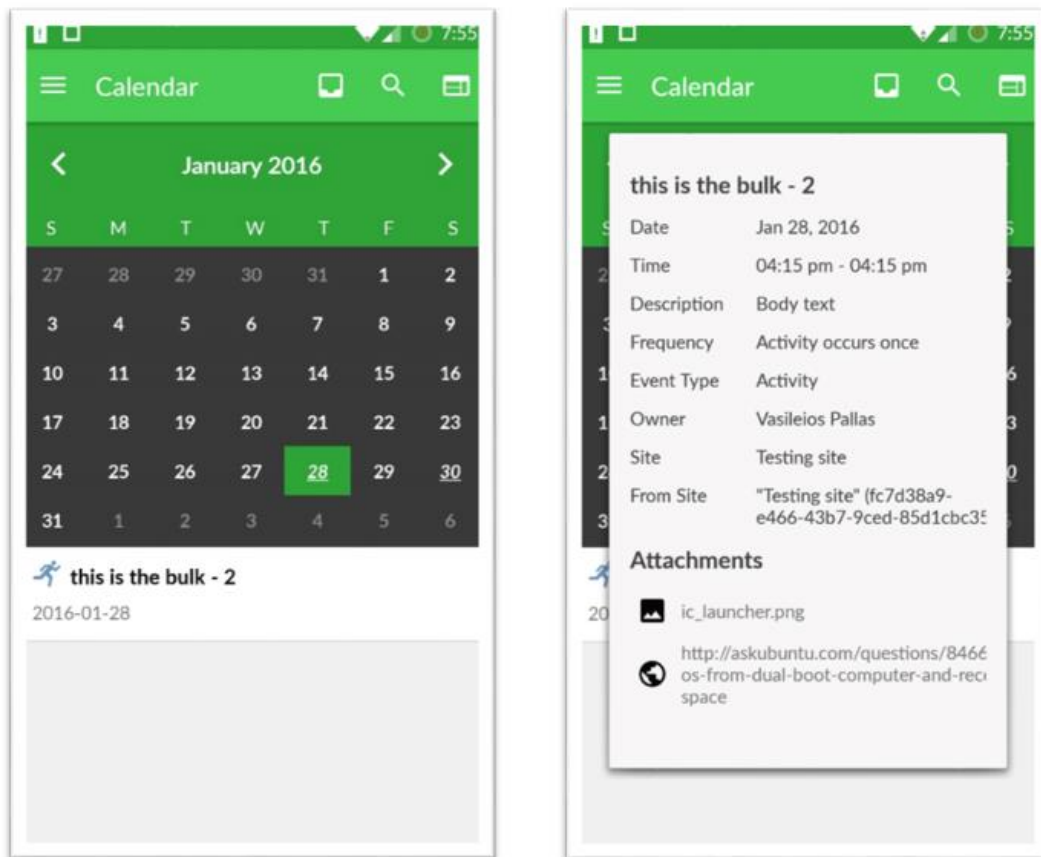


Figure 33: Calendar events

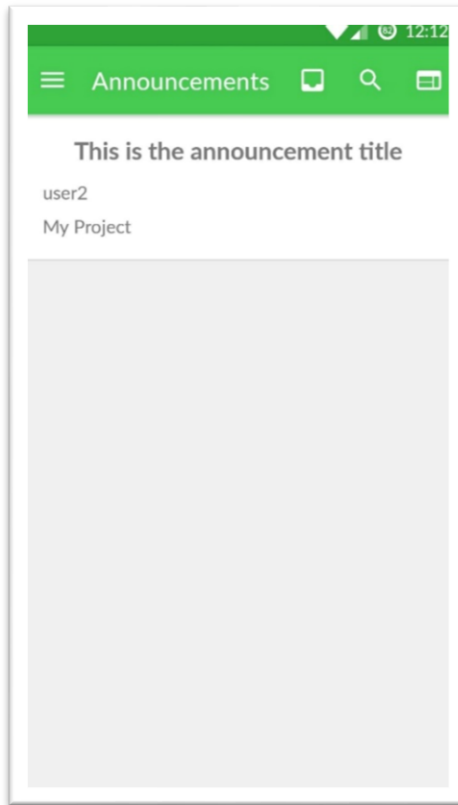


Figure 34: Announcements

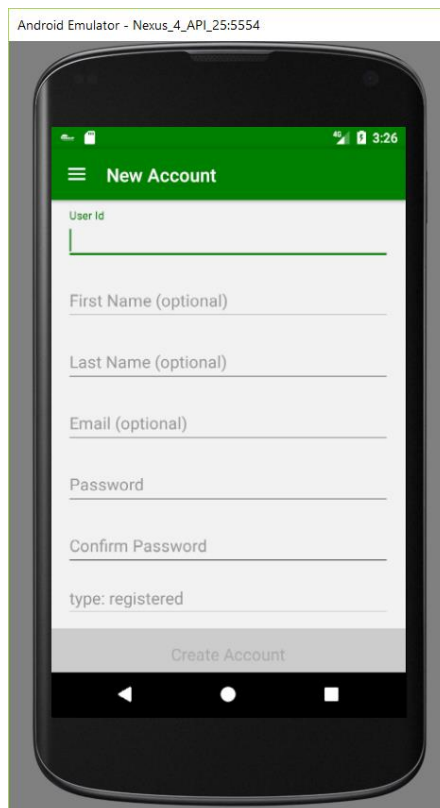


Figure 35: New account creation

3.7 Offline mobile app

The menu of the mobile app provides the capability to download materials for offline use. This can be re-synchronized each time the user has access to the Internet, but the materials are downloaded in the device so that they can be read offline even without access to the Internet.

In order to access the offline mobile app the user has to select the menu option “Offline Use” from the main menu (Figure 36).

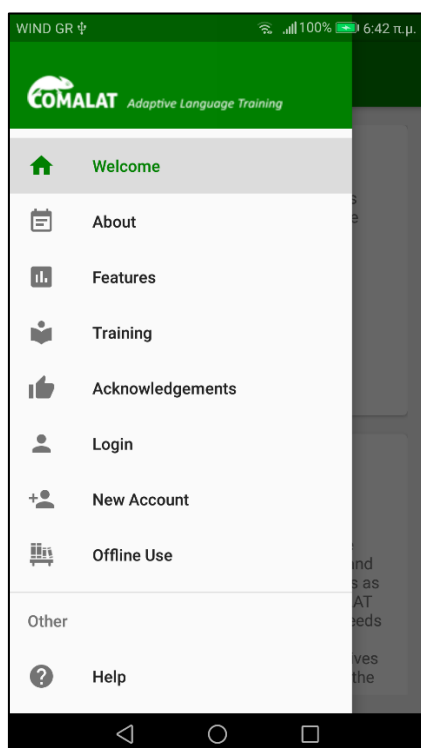


Figure 36: Selecting “Offline Use” from the main menu

When the application launches it will ask the users’ permission to use the storage in the mobile phone in order to store the files that will be downloaded from the server for offline use. This is depicted in Figure 37.

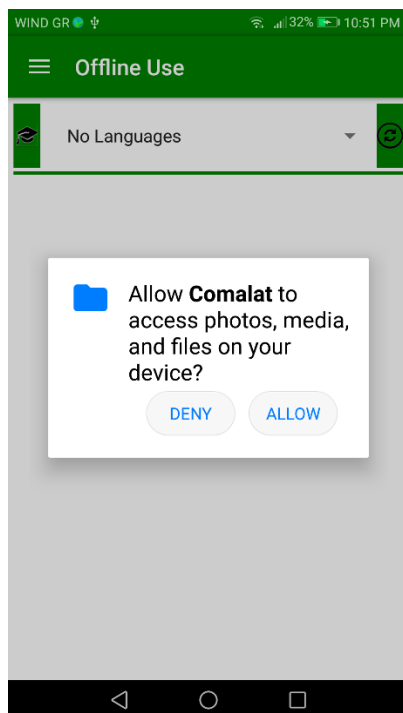


Figure 37: Storage usage permission provided by the users

Then the user is asked to choose the language from a menu (Figure 38). The languages appearing in this menu are the languages for which the administrator has uploaded offline materials.

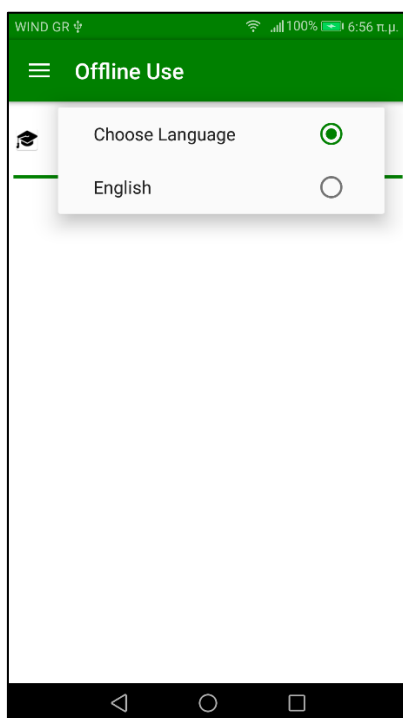


Figure 38: Menu from which the users choose the language to download materials for

The offline materials are uploaded in the dedicated web application for the offline mobile app. Notice that this is a separate web application that we have implemented distinct from the Sakai LMS tools. Administrators

can find usage instructions for this web application in the following Section 3.7.1.

Notice that if no languages are available for download in the offline server, then a message will appear that will notify the users, as can be seen in Figure 39.



Figure 39: No available languages message

After the user has selected the language then all the available levels, courses and units for this language appear as can be seen in Figure 40. Of course this requires that the users are connected to the Internet.

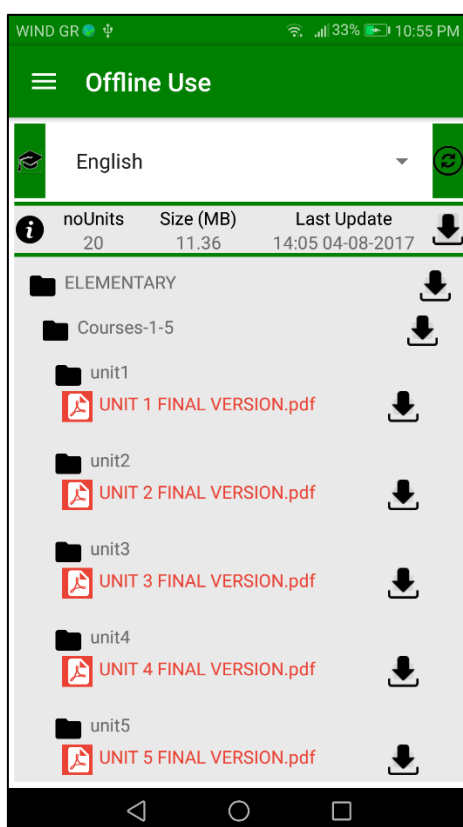


Figure 40: Display of available language materials for offline use

Notice that if there is no Internet connection available then the languages and the parts of the languages that have been already downloaded will be displayed for selection and in the contents area, respectively. For example in Figure 41 we can see that the user has downloaded in the device only Unit 1 and Unit 2 from the English language.

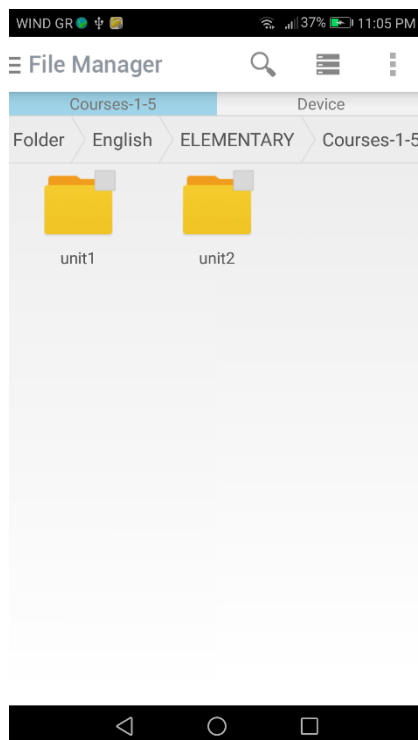


Figure 41: Units saved already in local device storage

Since only materials from the English language were downloaded and only specific units from the English language, if the user is disconnected from the WiFi the application will only provide the user with the ability to select English and it will only display the locally available parts when the user selects English, as can be seen in Figure 42.

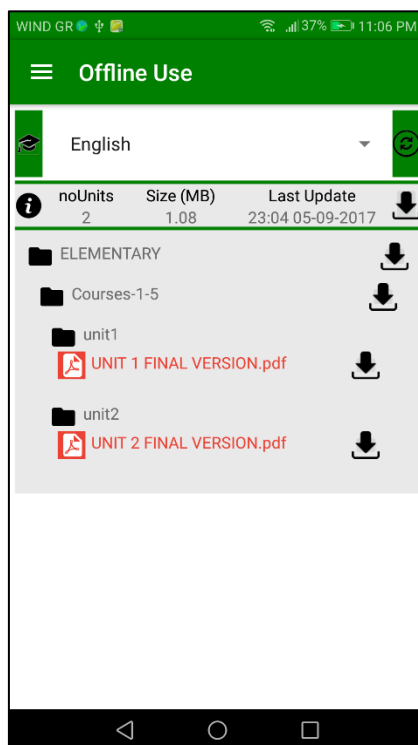


Figure 42: Offline materials available for selection and viewing

In addition, if the mobile device is connected to the Internet, but the server providing the offline materials is unavailable at that time, the learners will see the message “Server unreachable. Load local files” as depicted in Figure 43.

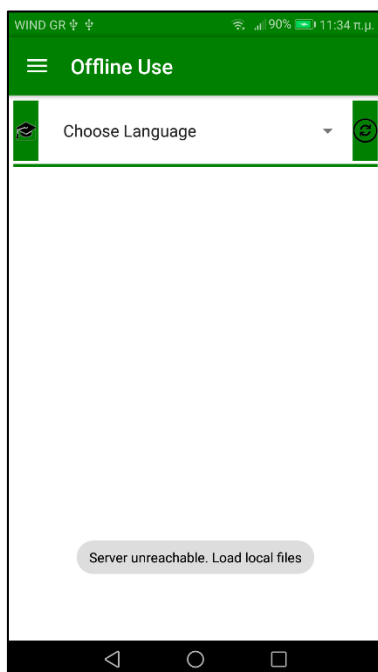


Figure 43: Server unreachable message

Then users can select one of the languages for which they have already downloaded materials (Figure 44) and the locally available items for the selected languages will be displayed (Figure 45):

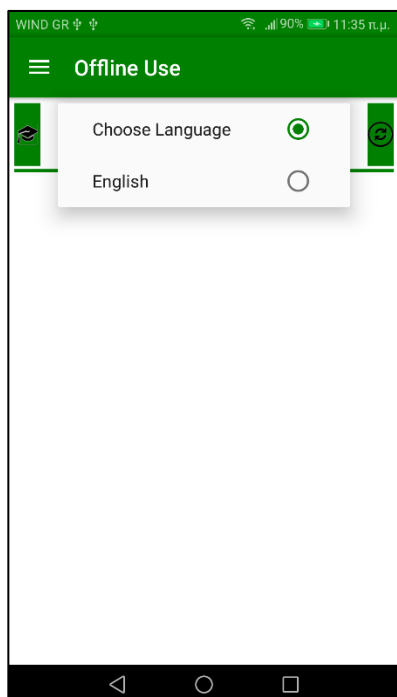


Figure 44: Locally available languages selection

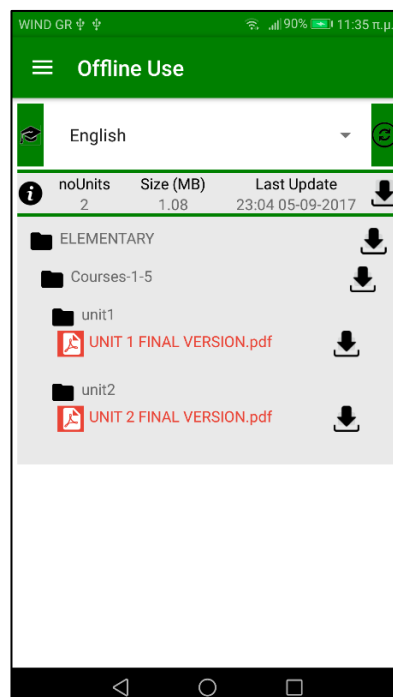


Figure 45: Locally available languages materials

When users are online they can click the download icon for the whole language (next to the “Last Update” date in Figure 40). The can also click to download the whole level, a courses group or just one unit. As users download the materials, various messages appear to inform them as can be seen in Figure 46.

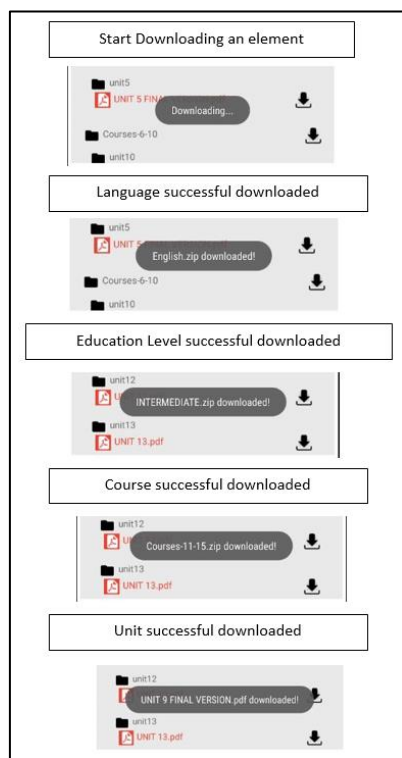


Figure 46: Messages for downloads

After the users have downloaded an element and this is stored in the local device storage, they can then open it by clicking on the file’s name. As can be seen in Figure 47, all the available options for opening a PDF file in user’s device will be provided. The user must choose one to open the file and read its contents.



Figure 47: Opening the PDF file for a downloaded language unit

Finally, users view the file contents as can be seen in Figure 48.

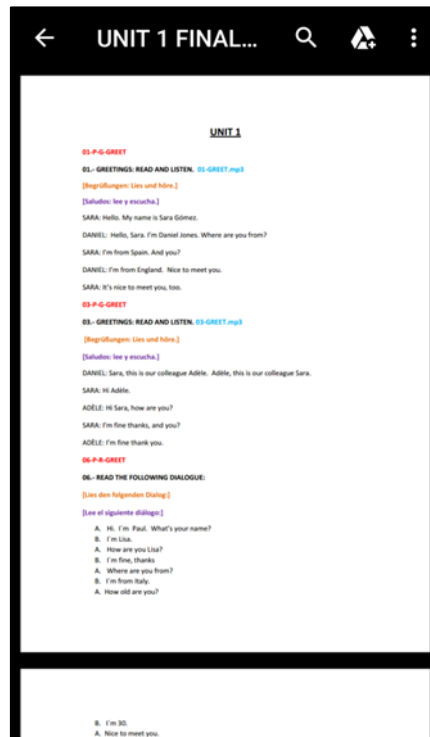


Figure 48: Reading the offline materials

When the network is available, the users can synchronize with the server in case some of the materials have been updated and/or new languages have become available, or simply to view materials available for downloading that they have not downloaded yet in their devices. The synchronization is achieved with the button next to the language selection menu.

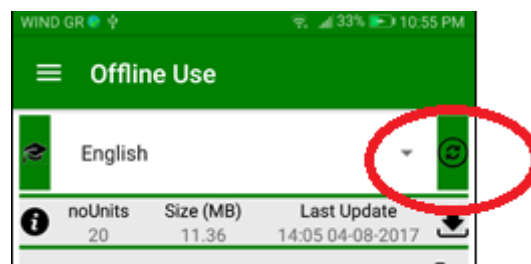


Figure 49: Synchronization button


3.7.1 Dedicated web application for the offline mobile app


For the purpose of the offline mobile app a separate web application has been developed which is not a Sakai tool. This separate application allows the administrator to upload materials that can be downloaded from the offline mobile app for offline use. The following instructions are intended for the Administrator of the offline mobile app web component.

In order to access all the features (Upload, Update and Delete) we will need to log in.

Login

Username or password is incorrect for testing username: admin && password: admin





[Login ➔](#)
[Register\(?\)](#)

Figure 50: Logging in the web application for the offline mobile app

After logging in If there is no lesson, a message will appear.

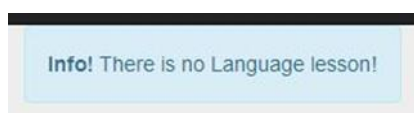


Figure 51: Message appearing when there are no language lessons

In any case the users will be allowed to upload the offline material for a new language. The online material must be provided in a zip file format. The zipped folder will contain the levels, the courses and the units.


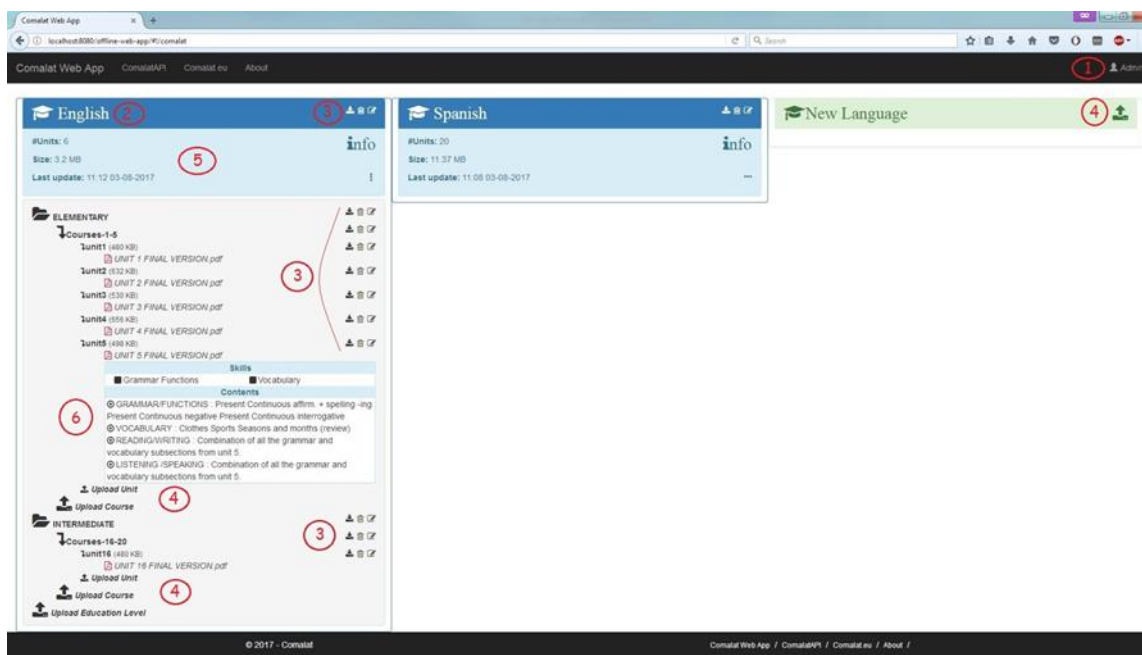


Figure 52: Uploading a new language

After uploading the new language the contents are appearing in the browser:

1. Display name / logout
2. Display language name
3. Download, Delete and Update actions
4. Upload action
5. Information about language #Units: number of units, Size: total size(MB) and Last Update.
6. Information about pdf file. Skills: [Grammar Functions (G), Vocabulary (V), Reading Writing (R) and Listening Speaking (L)].



The lessons are unzipped in the server and are kept in a specific lesson folder, which resides in the user_directory /Comalat Folder/comalat Languages. Contents are extracted from a word file that should be provided in each subdirectory containing the units (i.e. the lessons), like it is depicted in Figure 53.

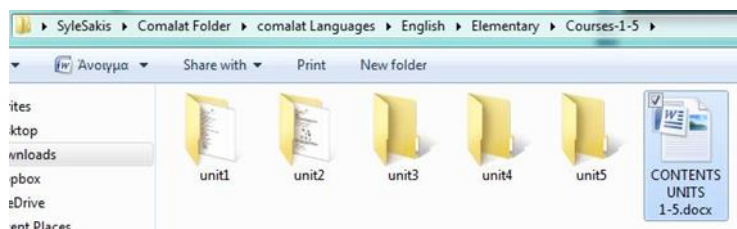






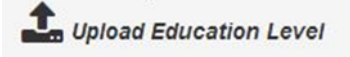

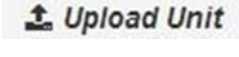

Figure 53: Contents of units

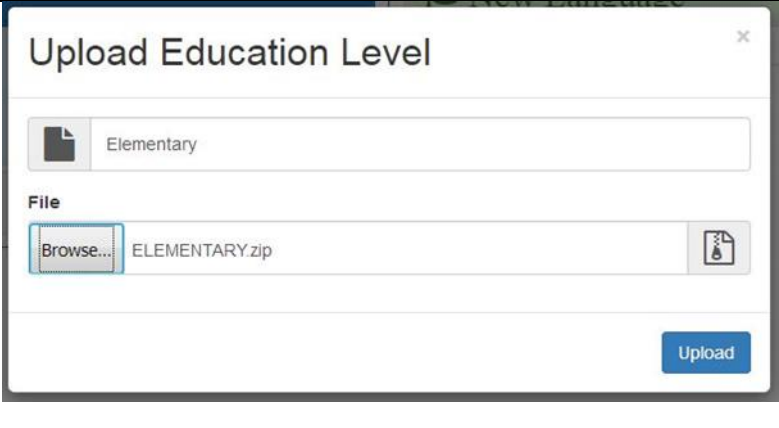
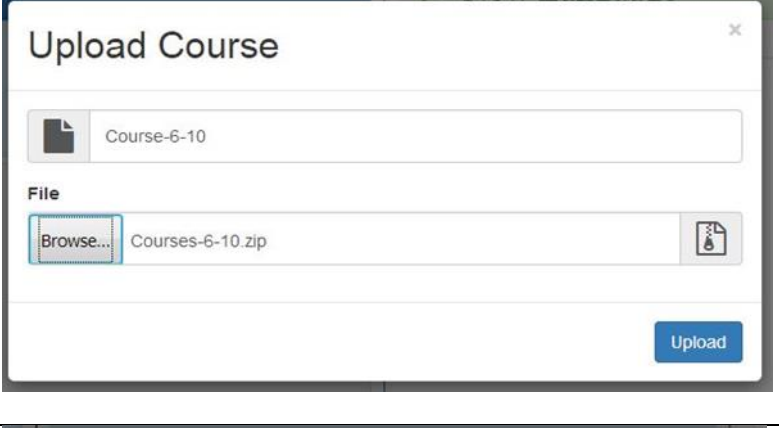
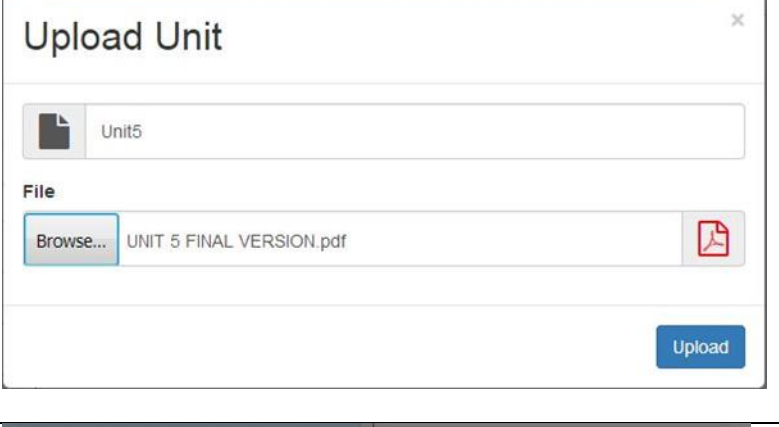

Contents file is like depicted in Figure 54.

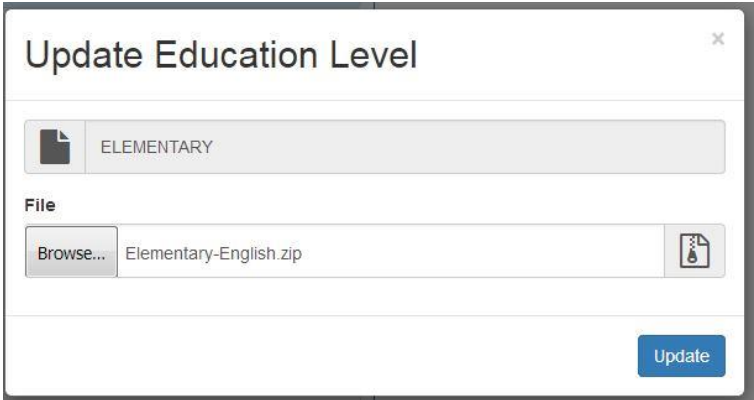
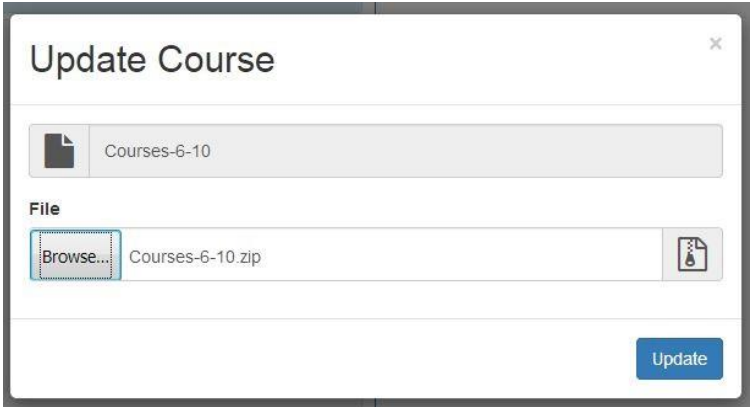
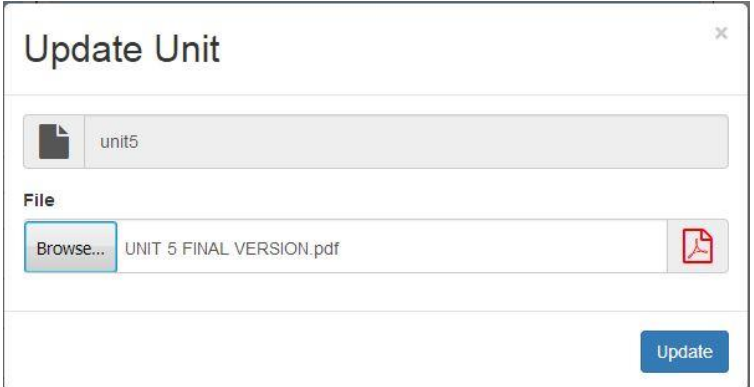
ELEMENTARY CONTENTS ENGLISH UNITS 1-5					
COURSE 1	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5
GRAMMAR/FUNCTIONS	<ul style="list-style-type: none"> To be Greetings and introductions Personal pronouns & possessive adjectives 	<ul style="list-style-type: none"> Saxon genitive Have/has (+) Adjectives 	<ul style="list-style-type: none"> Present Simple affirm. & spelling 3rd per. Sing. Adverbs of frequency Indefinite article – a/an 	<ul style="list-style-type: none"> Present Simple negative + interrogative Can /can't (abilities) There is/are 	<ul style="list-style-type: none"> Present Continuous affirm. + spelling -ing Present Continuous negative Present Continuous interrogative
VOCABULARY	<ul style="list-style-type: none"> Countries & nationalities Numbers (1-50) Jobs 	<ul style="list-style-type: none"> Family Personal objects Colours 	<ul style="list-style-type: none"> City & shops Prepositions (in/on/at) Days of the week and months 	<ul style="list-style-type: none"> Rooms & furniture Action verbs Prepositions (in/on/under/between) 	<ul style="list-style-type: none"> Clothes Sports Seasons and months (review)
READING/Writing	Combination of all the grammar and vocabulary subsections from unit 1.	Combination of all the grammar and vocabulary subsections from unit 2.	Combination of all the grammar and vocabulary subsections from unit 3.	Combination of all the grammar and vocabulary subsections from unit 4.	Combination of all the grammar and vocabulary subsections from unit 5.
LISTENING /SPEAKING	Combination of all the grammar and vocabulary subsections from unit 1.	Combination of all the grammar and vocabulary subsections from unit 2.	Combination of all the grammar and vocabulary subsections from unit 3.	Combination of all the grammar and vocabulary subsections from unit 4.	Combination of all the grammar and vocabulary subsections from unit 5.

Figure 54: Contents of the “Contents” file

In the following table basic instructions on how to use the web application are provided along with explanations of the various icons used.

	Symbol
Download	
Delete	
Update language	
Upload New Language	
Upload Education Level	
Upload Course	
Upload Unit	
Upload a language modal form. In the example the given language name is English and the uploaded file is English.zip	

<p>Upload one Education Level modal form. In the example the given level is Elementary and the uploaded file is Elementary.zip</p>	
<p>Upload a course modal form. In the example the course name is "Course-6-10" and the zip file provided is the Courses-6-10.zip</p>	
<p>Upload a unit modal form. In the example the unit name is "Unit5" and the PDF file provided is file "Unit 5 FINAL VERSION.pdf". Notice that in the case of one Unit only the PDF file of the unit is provided and not a zip file.</p>	
<p>Update Language Modal Form: Language Name: English ZIP File: English.zip</p>	

<p>Update Education Level Modal Form:</p> <p>Level Name: ELEMENTARY</p> <p>ZIP File: Elementary-English.zip</p>	
<p>Update Course Modal Form:</p> <p>Course Name: Courses-6-10</p> <p>ZIP File: Courses-6-10.zip</p>	
<p>Update Unit Modal Form:</p> <p>Unit Name: unit5</p> <p>PDF File: UNIT 5 FINAL VERSION.pdf</p>	

Similarly, by pressing the download icon next to each part (language, level, course and unit) you can download the contents of the selected part in zipped format or in the case of a unit just the PDF file of the unit (Figure 55).



Figure 55: Browsing and downloading the various parts