Module 2A. eXeLearning as a tool for creating digital content

Laura Muñiz Rodríguez

munizlaura@uniovi.es

University of Oviedo

Universidad de Oviedo
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University of Oviedo

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5. Export content created with eXeLearning.
6. Upload eXeLearning content to a course in Moodle.

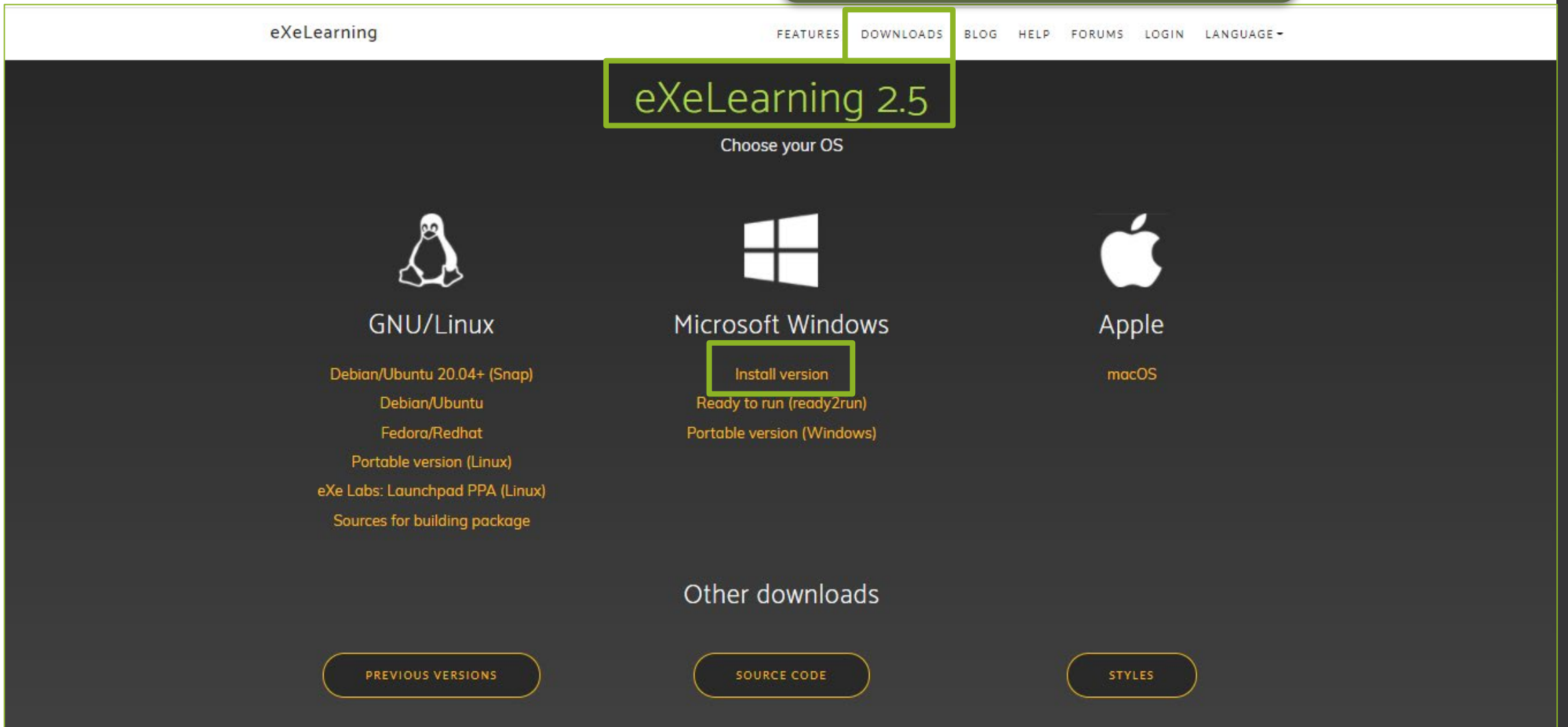
1. Introduction to the use of eXeLearning

eLearning **X**HTML **e**ditor = **eXeLearning**

- **Editing environment specially designed for creating educational content**.
- It does **not require to have an extensive knowledge of languages** such as HTML or XML.
- It **uses standard formats** (like IMS or SCORM) widely used in learning management systems such as Moodle.
- It is an **intuitive and easy to use tool** that allows teachers to **create and publish a complete variety of educational content** (text, images, clips, tables, sounds, GeoGebra applets, etc.) on web pages or online learning environments.
- It **works without an Internet connection**.

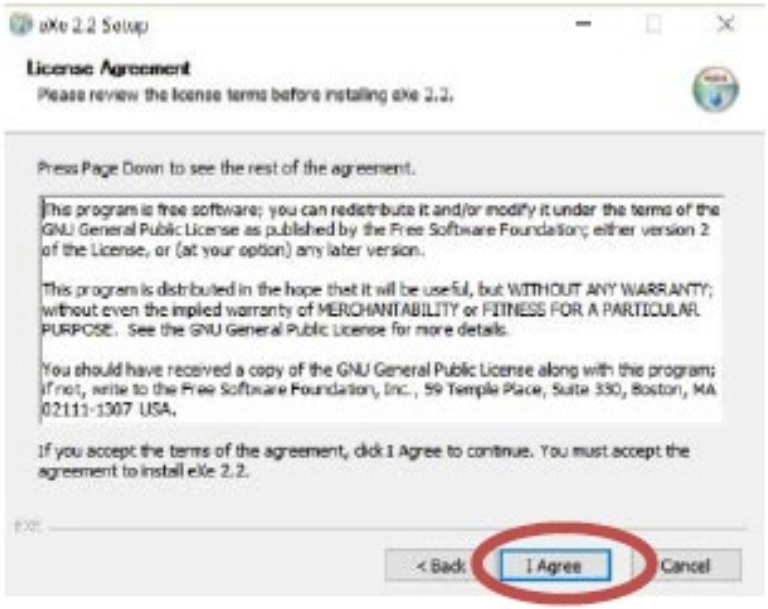
2. eXeLearning download and installation

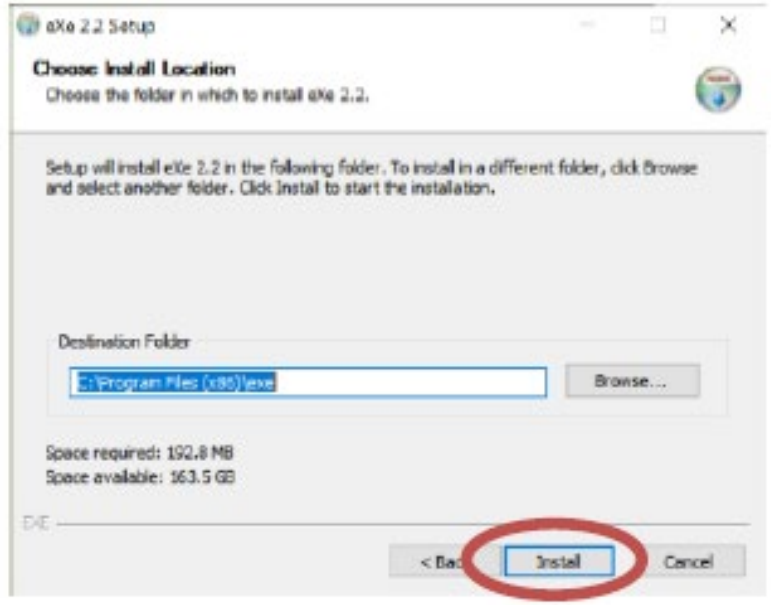
https://exelearning.net/en/



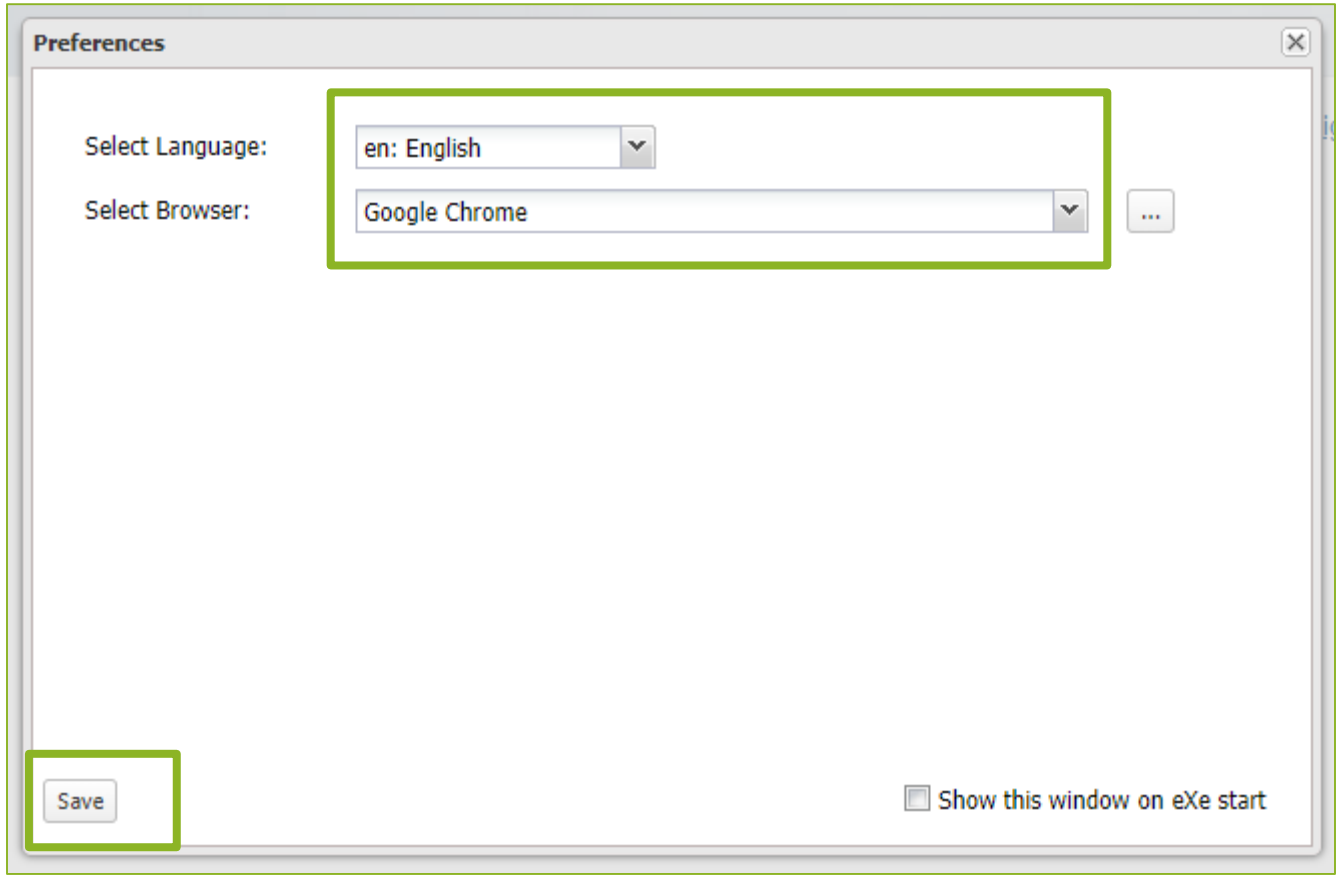
2. eXeLearning download and installation

- INTEF-eXe-install-2.2.exe
- INTEF-exe-ready2run-2.2.exe
- portable-INTEF-exe-2.2-win.zip

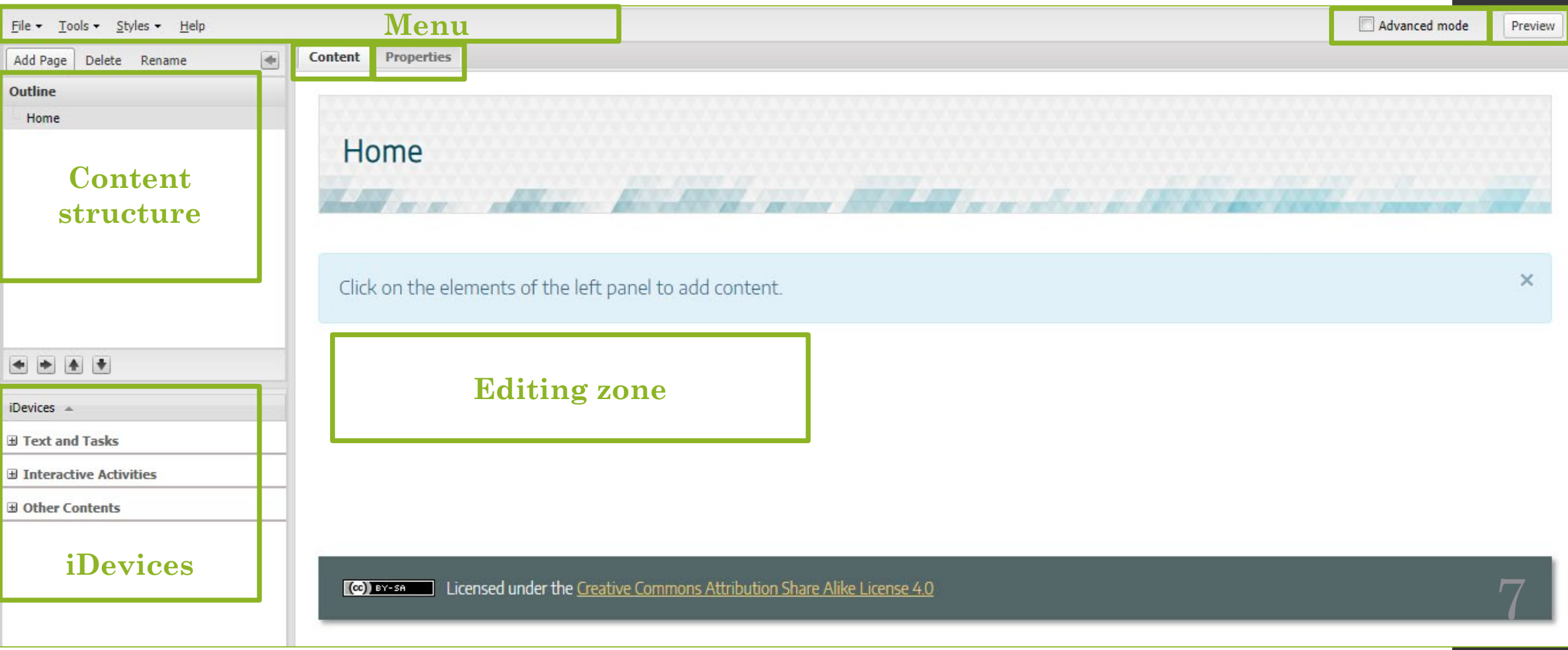




2. eXeLearning download and installation



3. eXeLearning work environment and structure



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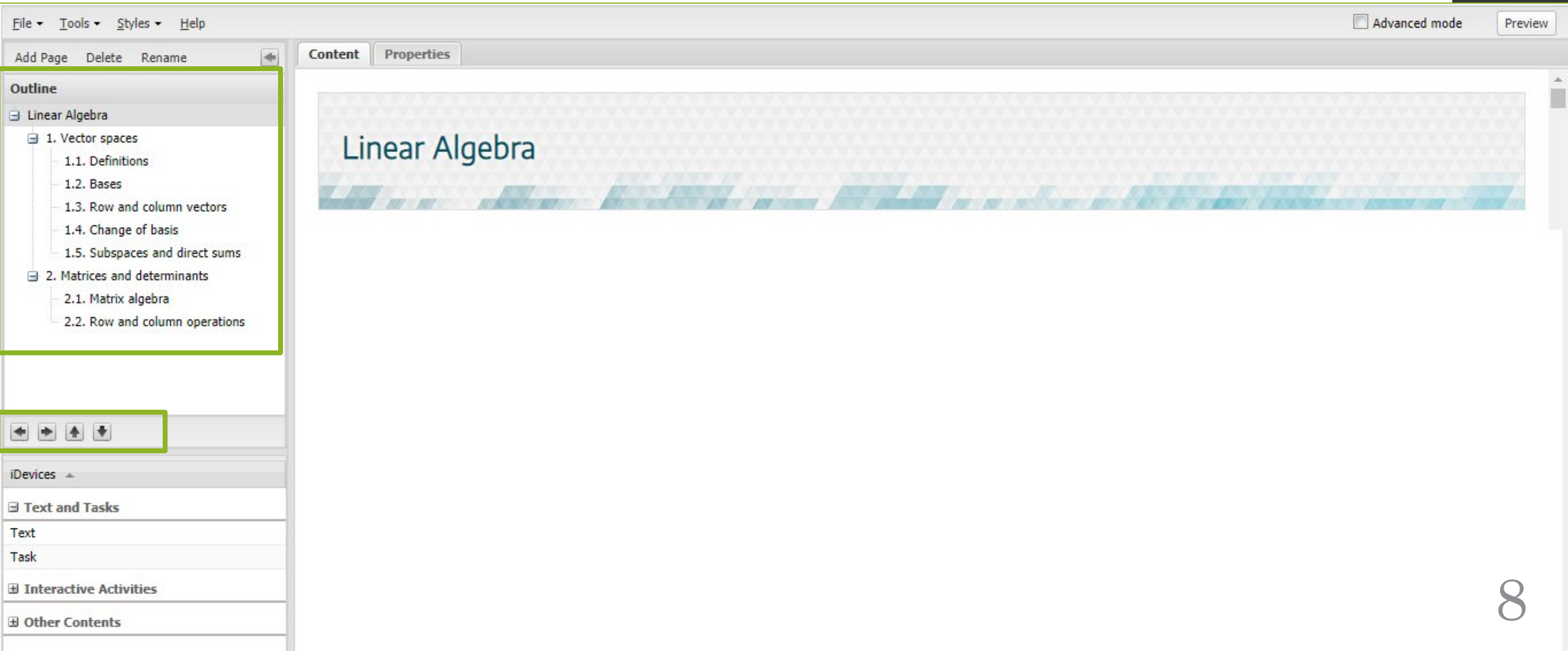
3. eXeLearning work environment and structure



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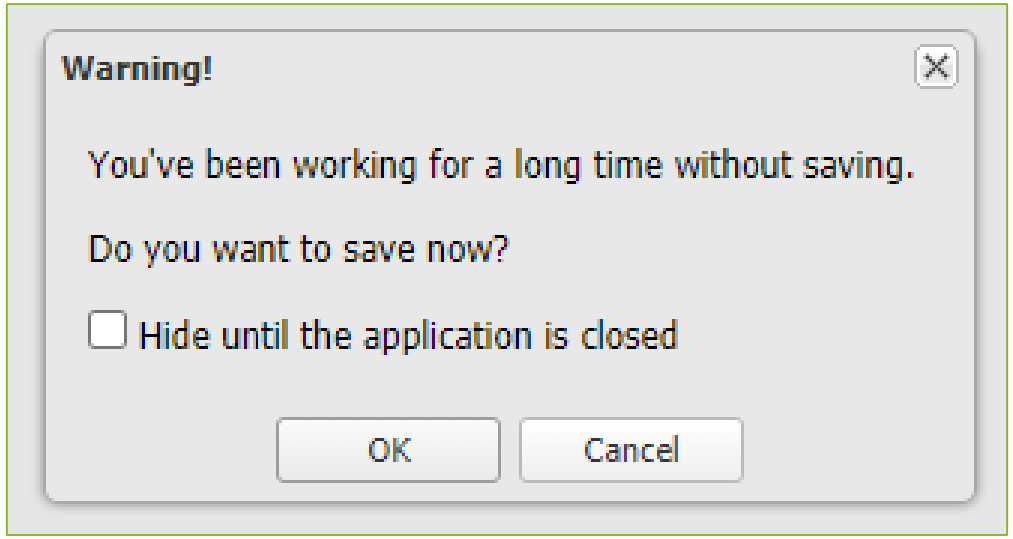
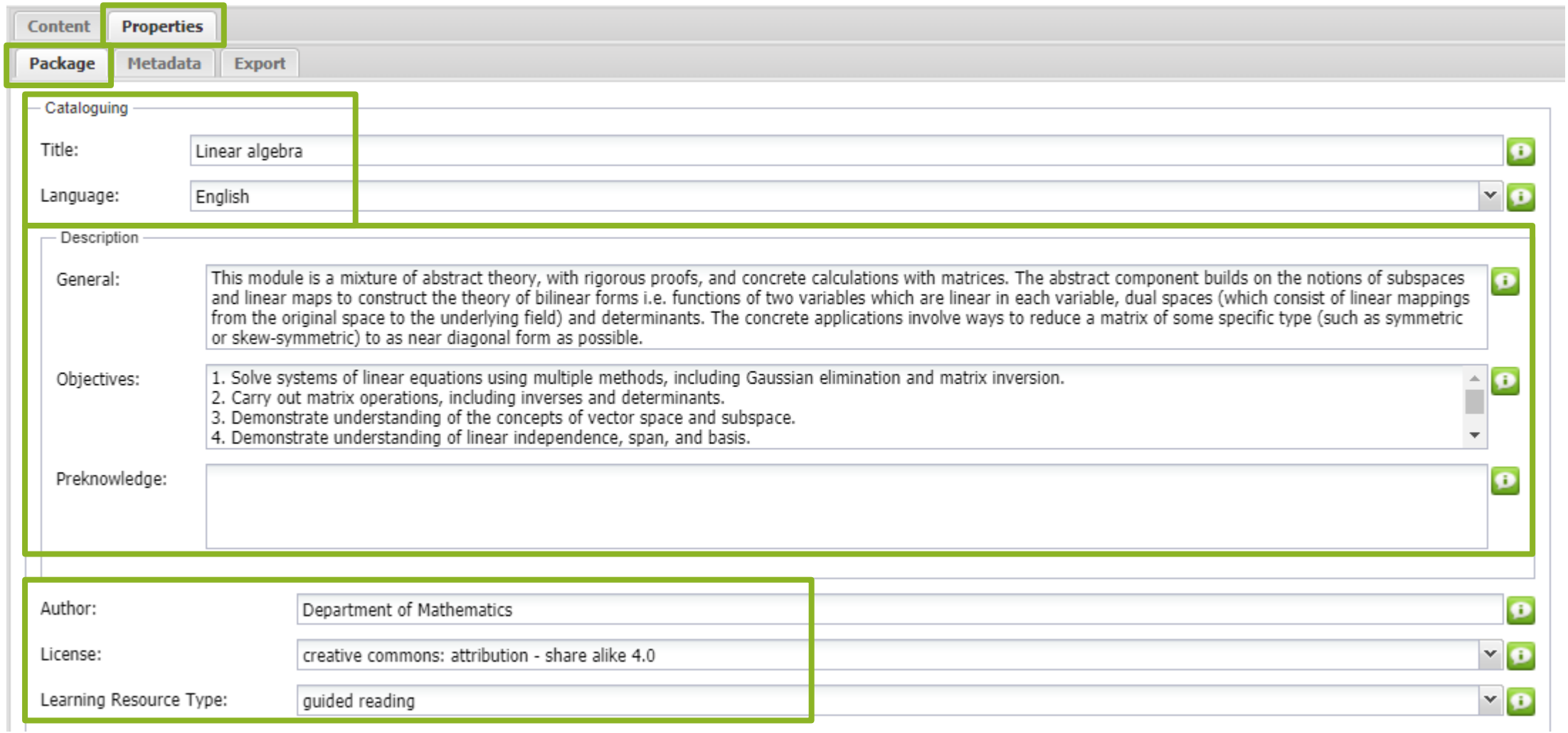
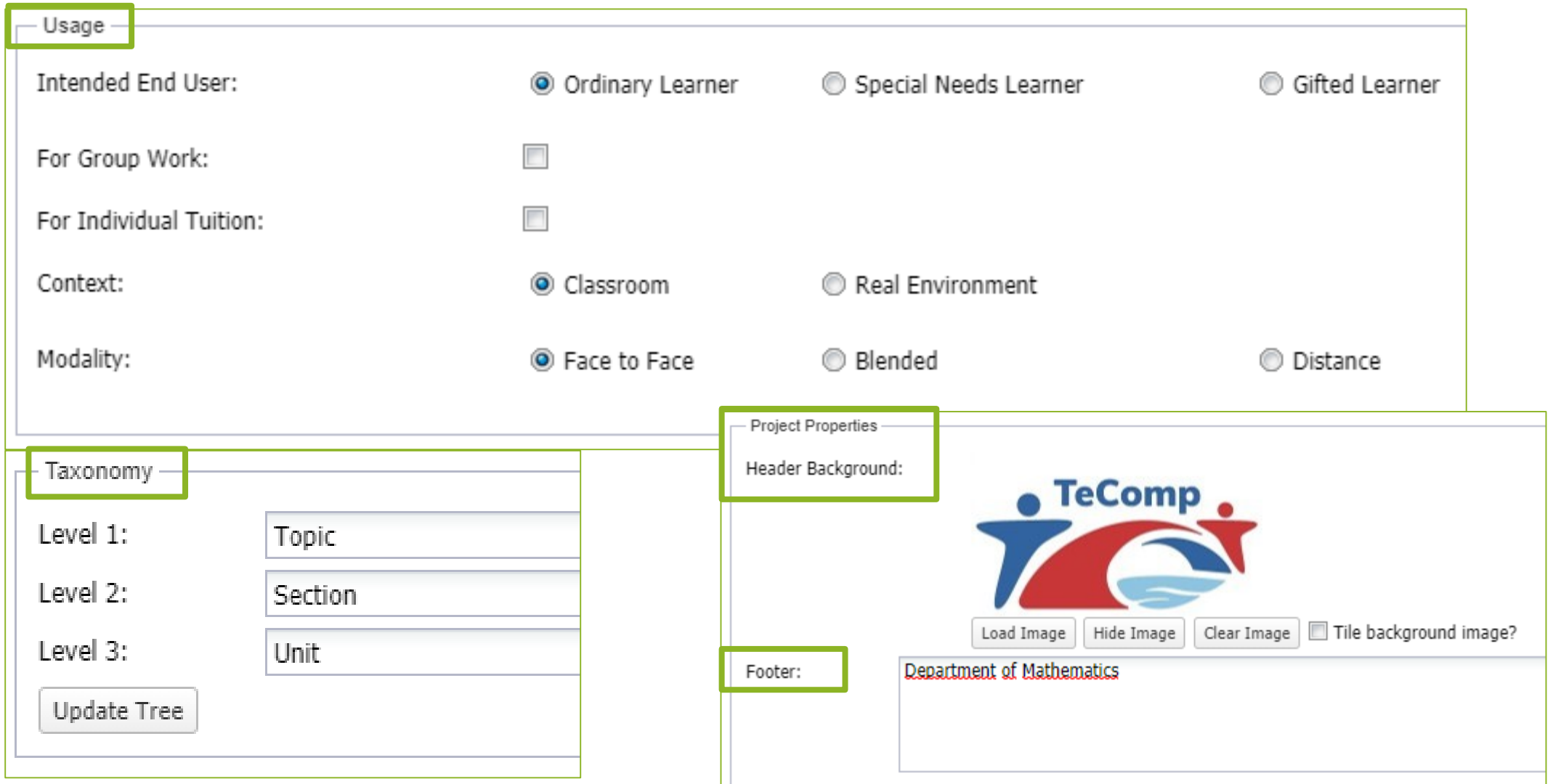

Warning!
You've been working for a long time without saving.
Do you want to save now?
Hide until the application is closed
OK
Cancel

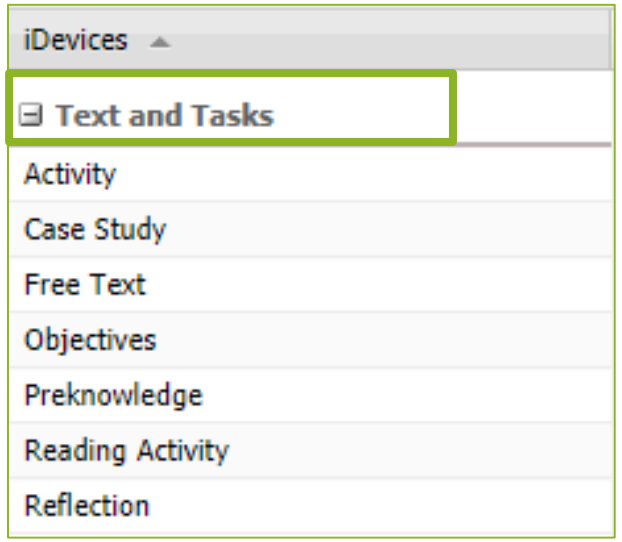
3. eXeLearning work environment and structure

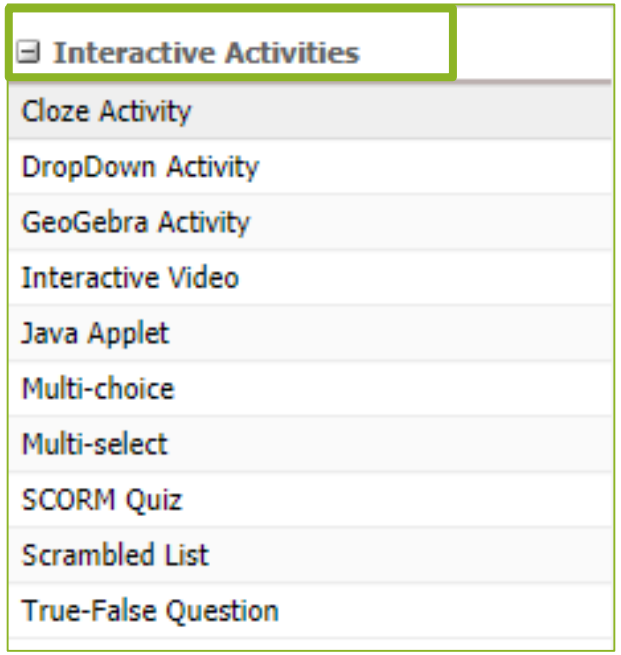


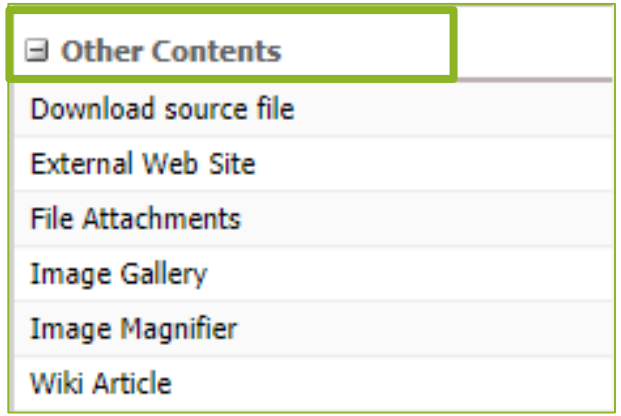
3. eXeLearning work environment and structure



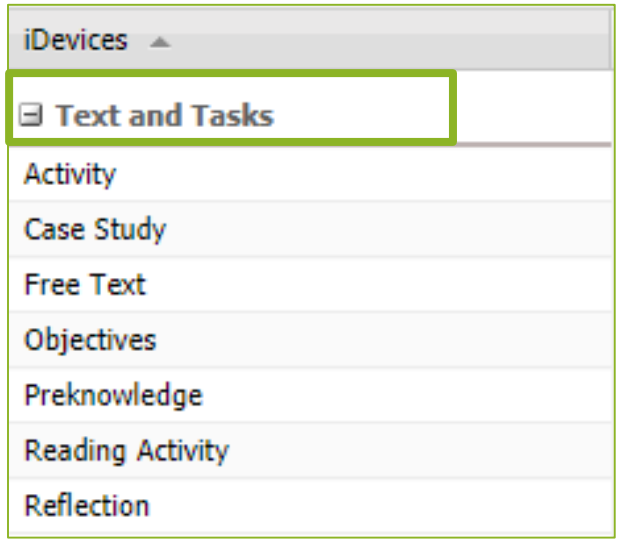
4. Creation and editing of digital content





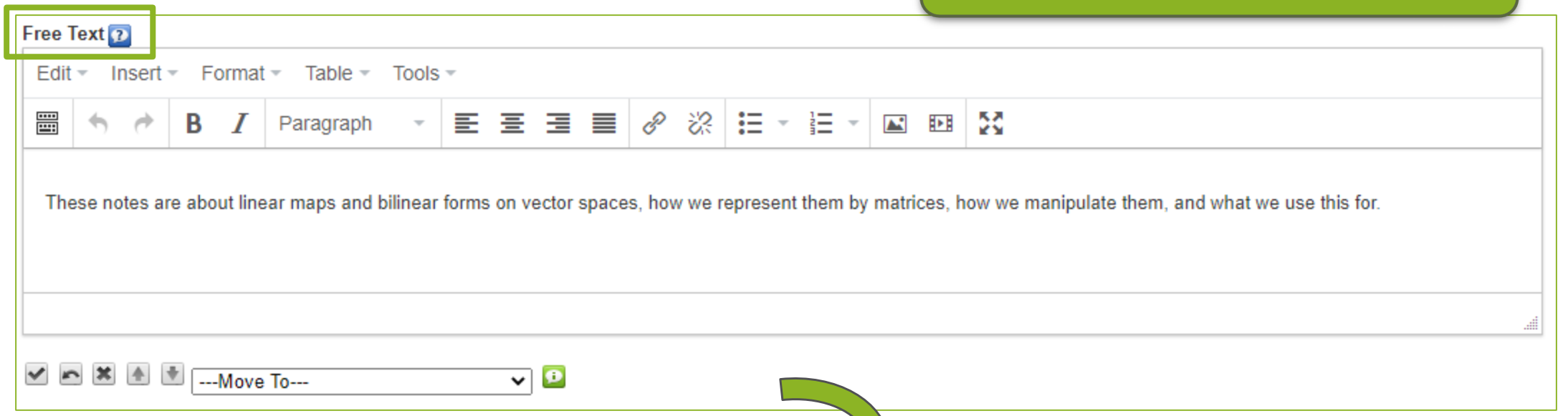


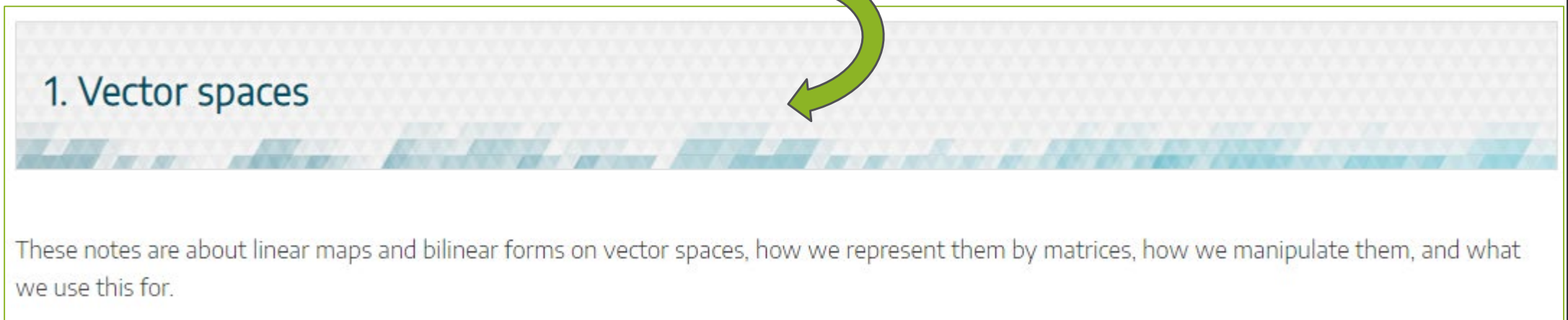
4. Creation and editing of digital content



4. Creation and editing of digital content

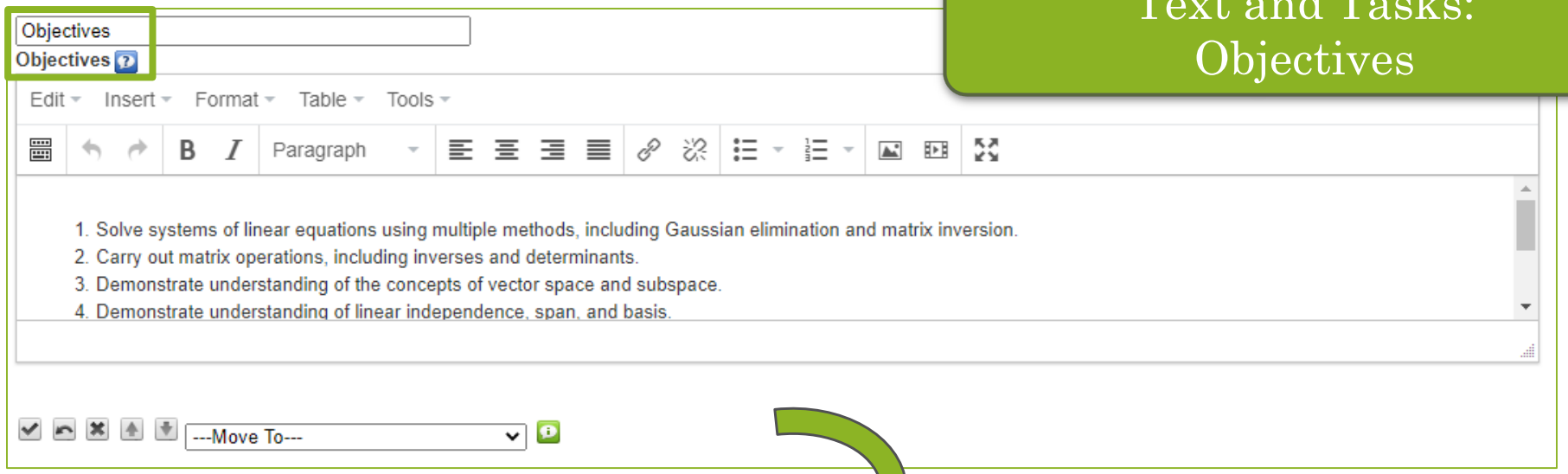
Text and Tasks:
Free Text

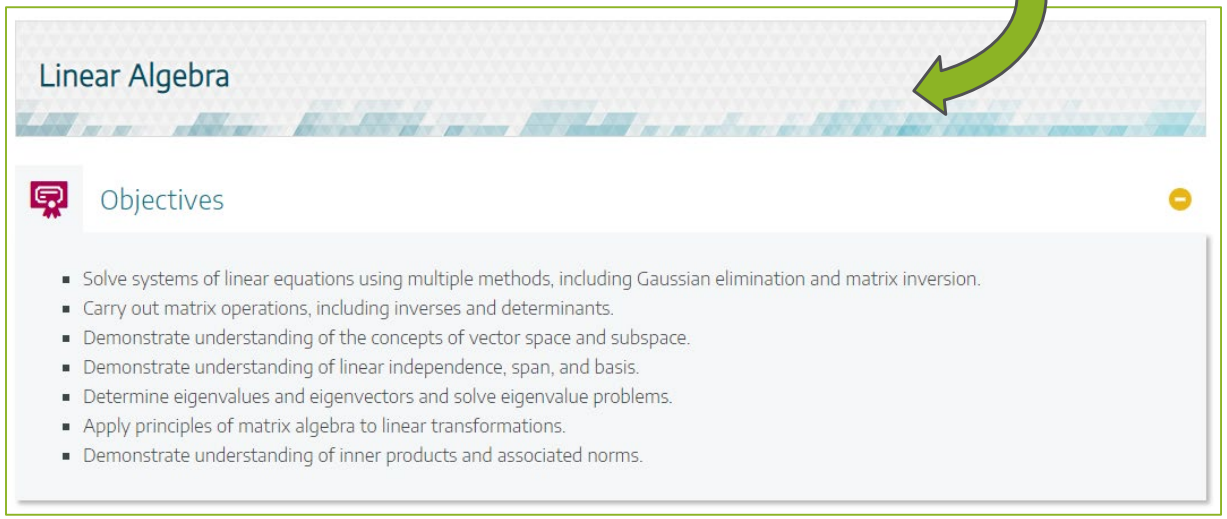




4. Creation and editing of digital content

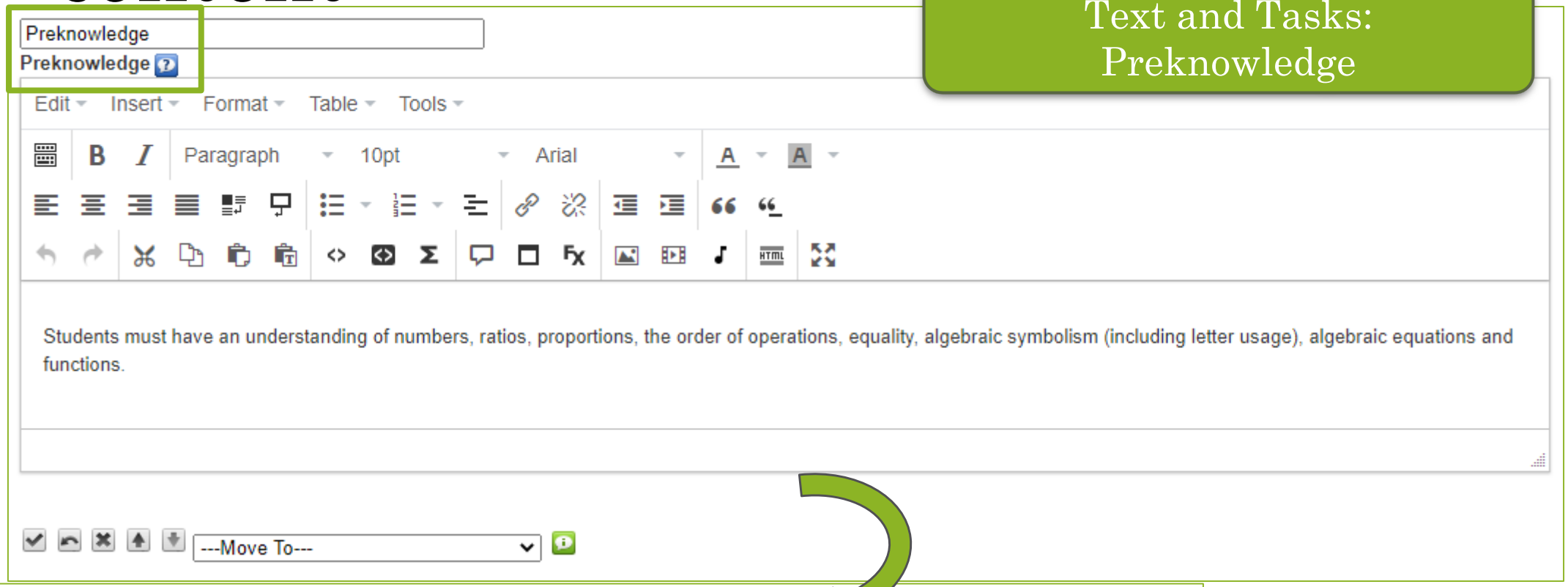
Text and Tasks:
Objectives





4. Creation and editing of digital content

Text and Tasks:
Preknowledge



4. Creation and editing of digital content

Text and Tasks:
Activity

Activity
Activity

Edit Insert Format Table Tools

Paragraph 10pt Arial

Consider the vector space R^2, with the two bases

$$B=\left(\begin{bmatrix}1\\0\end{bmatrix},\begin{bmatrix}0\\1\end{bmatrix}\right),\quad B'=\left(\begin{bmatrix}1\\1\end{bmatrix},\begin{bmatrix}2\\3\end{bmatrix}\right).$$

Calculate the transition matrix and its inverse.

---Move To---

1.4. Change of basis

Activity

Consider the vector space R^2, with the two bases

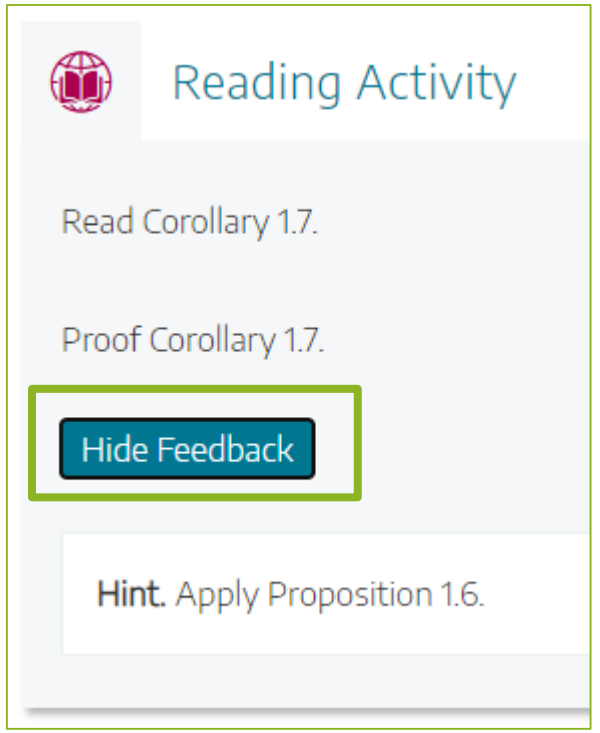
$$B=\left(\begin{bmatrix}1\\0\end{bmatrix},\begin{bmatrix}0\\1\end{bmatrix}\right),\quad B'=\left(\begin{bmatrix}1\\1\end{bmatrix},\begin{bmatrix}2\\3\end{bmatrix}\right).$$

GIF

Calculate the transition matrix and its inverse.

4. Creation and editing of digital content

Text and Tasks:
Reading Activity



4. Creation and editing of digital content

Text and Tasks:
Case Study

Case Study
Story: Editor

Calculate the rank of the following matrix:

A=\left[\begin{matrix}1 & 2 & 3\\4 & 5 & 6\end{matrix}\right].

Activity
Editor

Solution:

We have $A_{11} = 1$, so we can skip the first three steps. Subtracting twice the first column from the second, and three times the first column from the third, gives the matrix

Feedback

Button Caption:

Editor

Calculate the rank of a different matrix following the same procedure.

Case Study

Calculate the rank of the following matrix:

$$A = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix}.$$

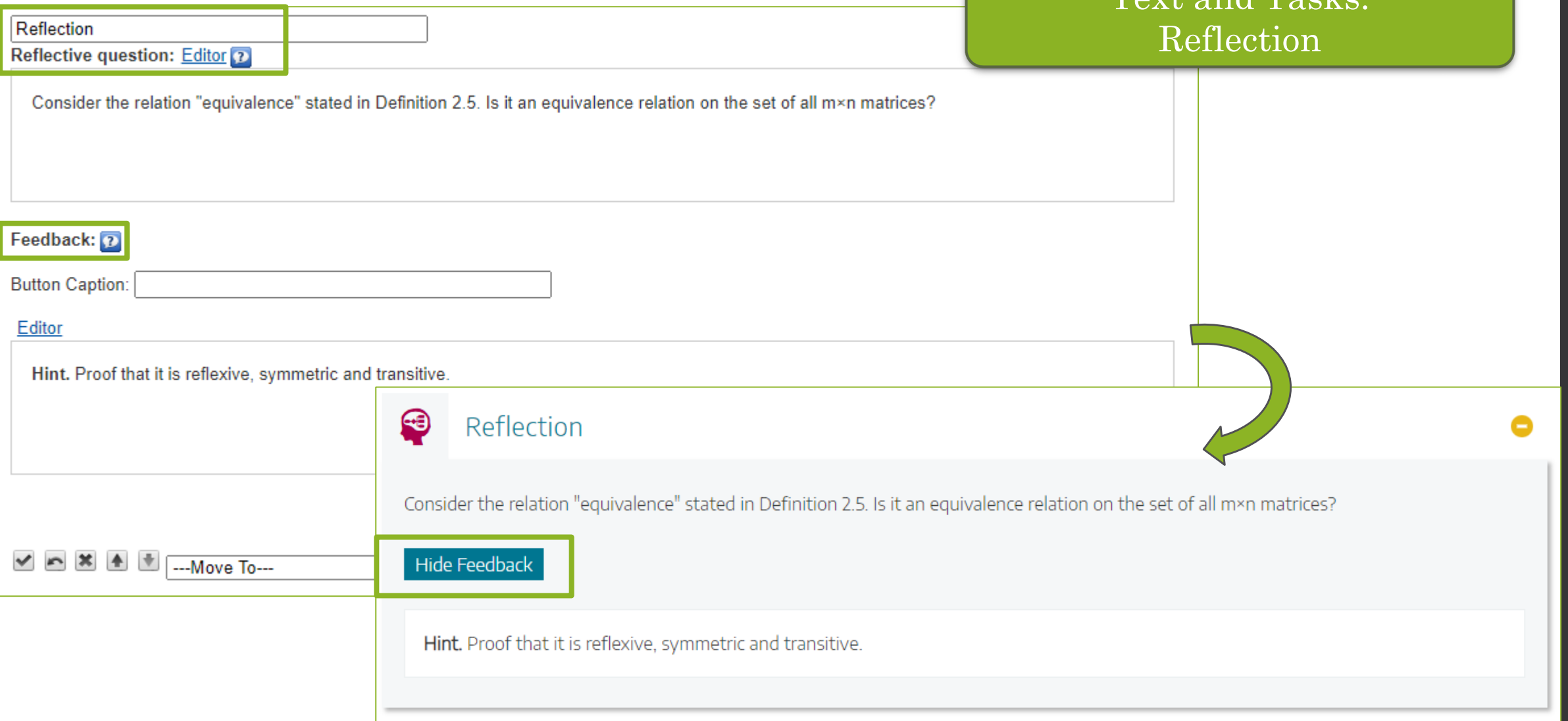
GIF

Solution:

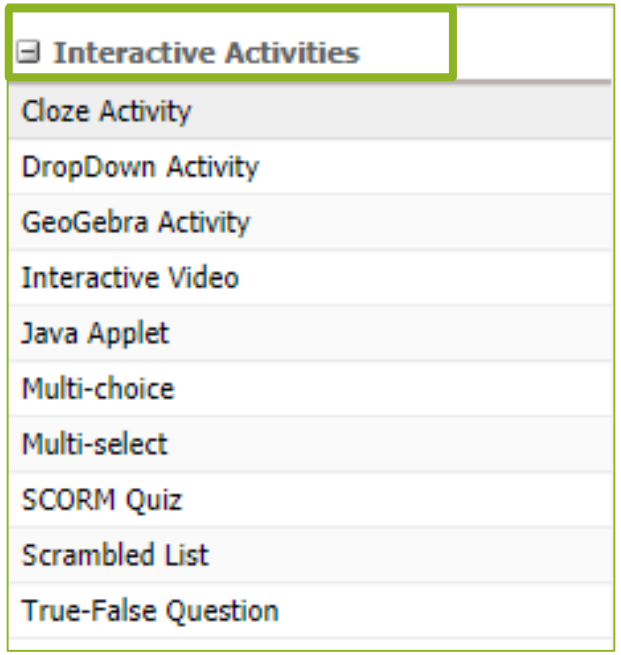
We have $A_{11} = 1$, so we can skip the first three steps. Subtracting twice the first column from the second, and three times the first column from the third, gives the matrix

4. Creation and editing of digital content

Text and Tasks:
Reflection

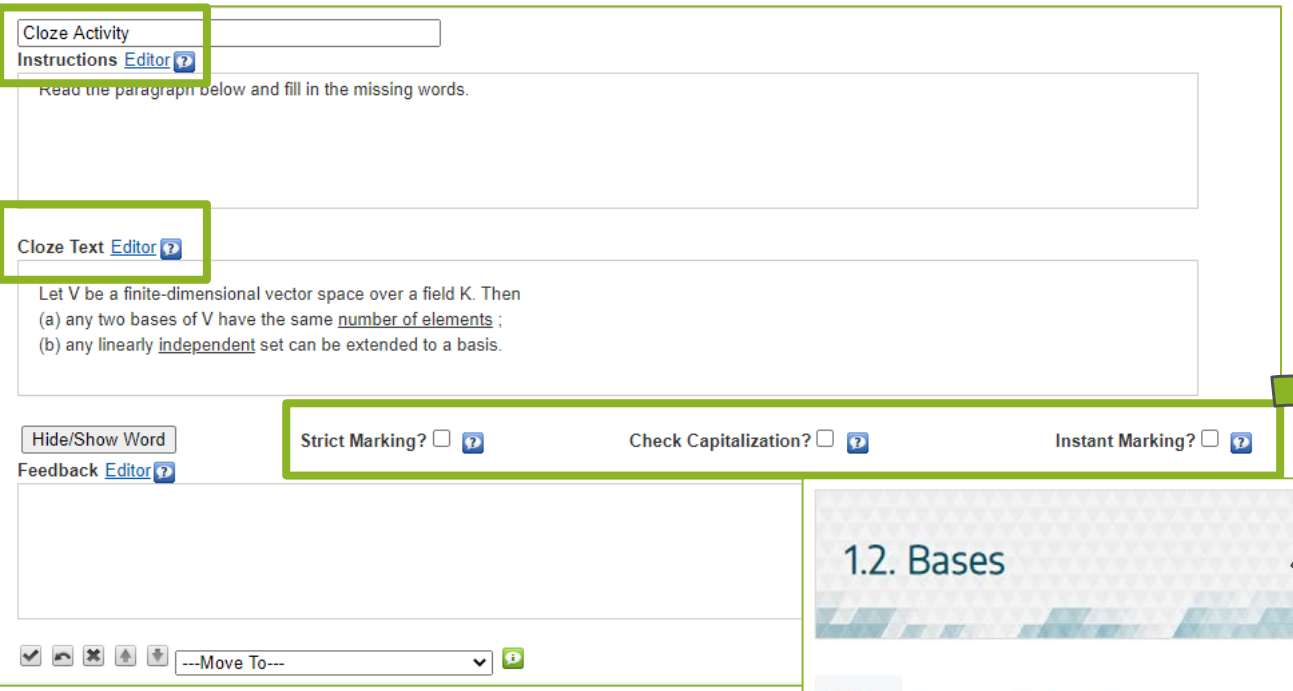


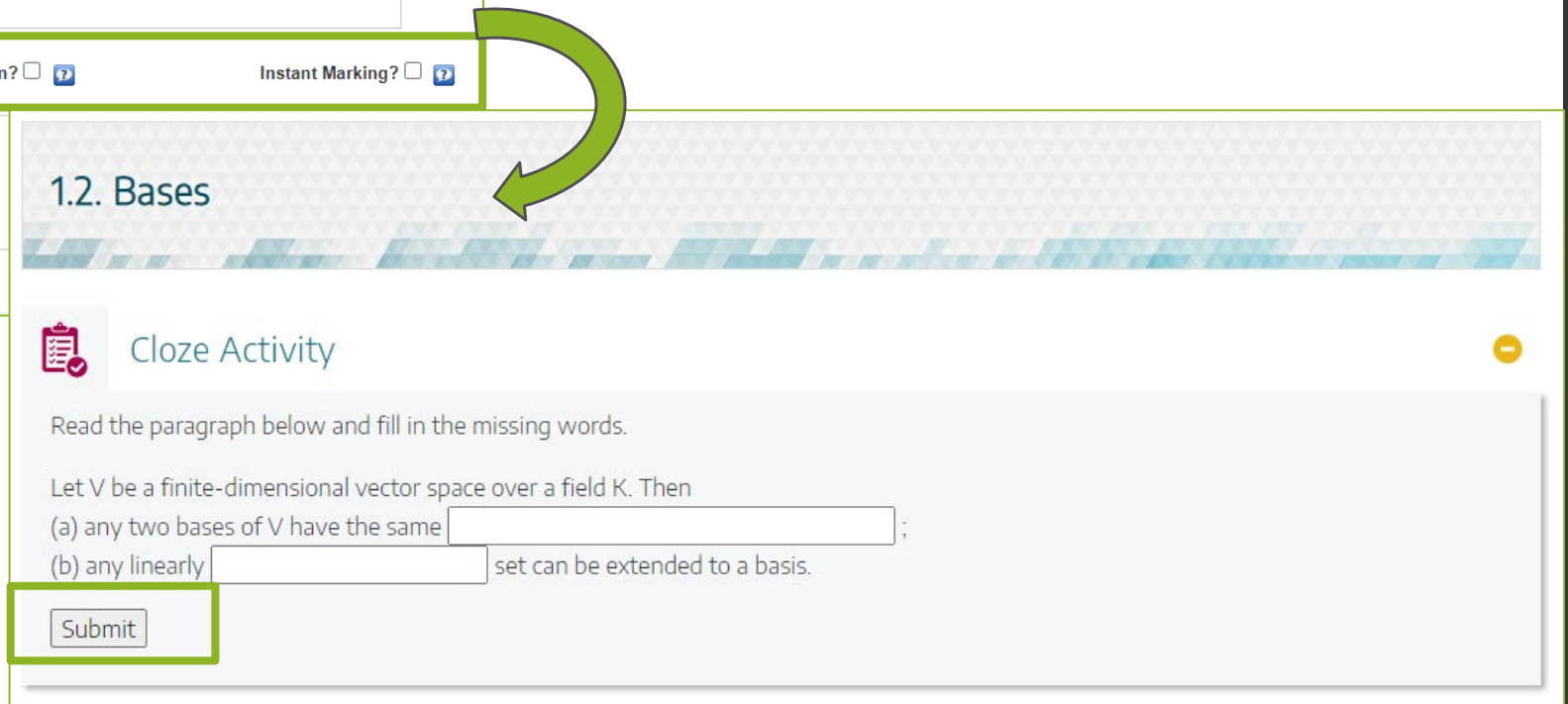
4. Creation and editing of digital content



4. Creation and editing of digital content

Interactive activities:
Cloze Activity





4. Creation and editing of digital content

Interactive activities:
DropDown Activity

DropDown Activity

Instructions Editor

Read and complete

Text Editor

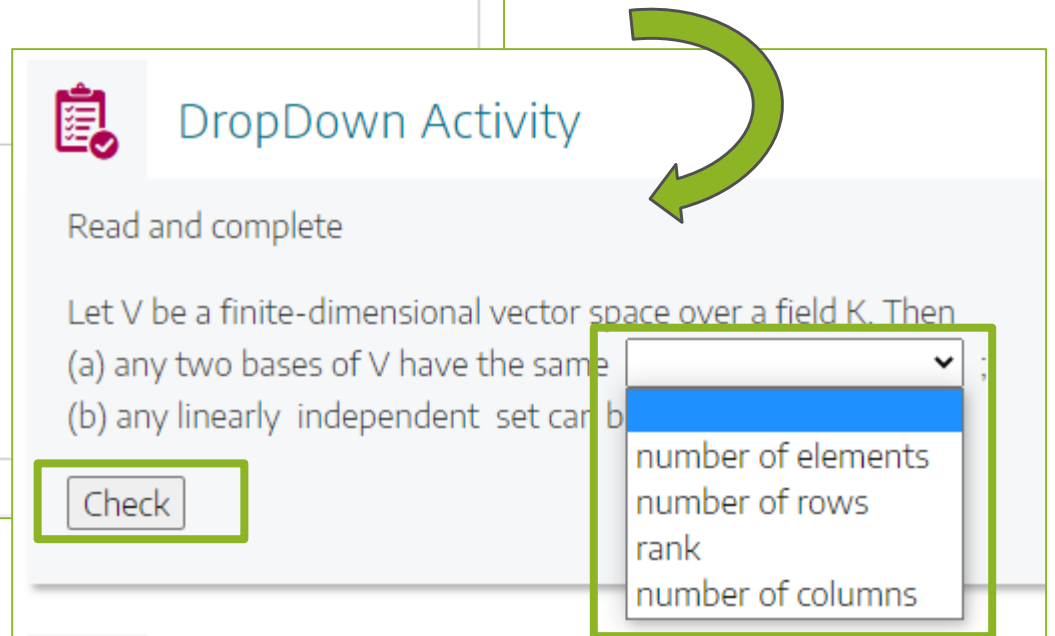
Let V be a finite-dimensional vector space over a field K. Then
(a) any two bases of V have the same number of elements ;
(b) any linearly independent set can be extended to a basis.

Hide/Show Word

Other words

rank | number of rows | number of columns

Feedback Editor



4. Creation and editing of digital content

Interactive activities:
True-False Question

True-False Question

Instructions Editor

Indicate if the following statement is true or false:

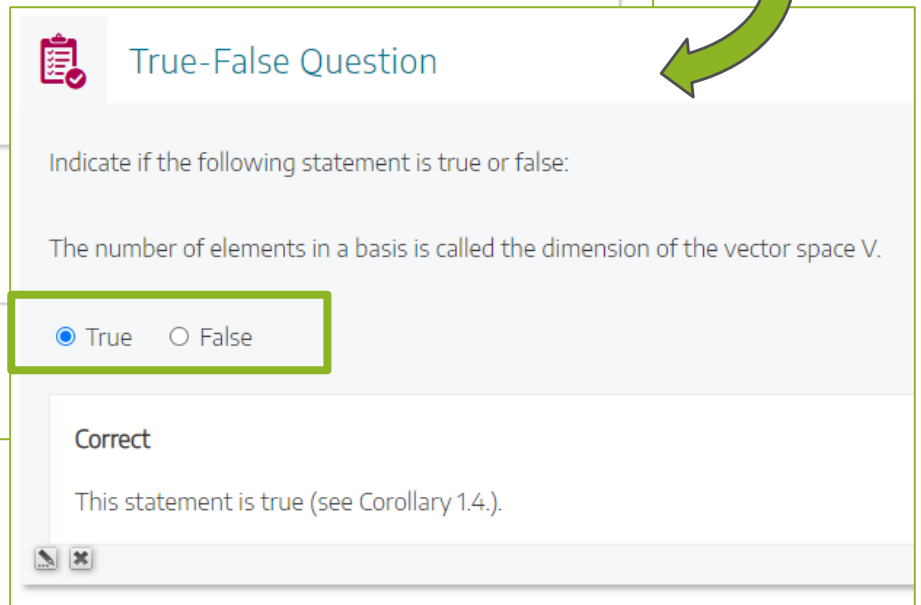
Question: Editor

The number of elements in a basis is called the dimension of the vector space V.

True ◉ False ○

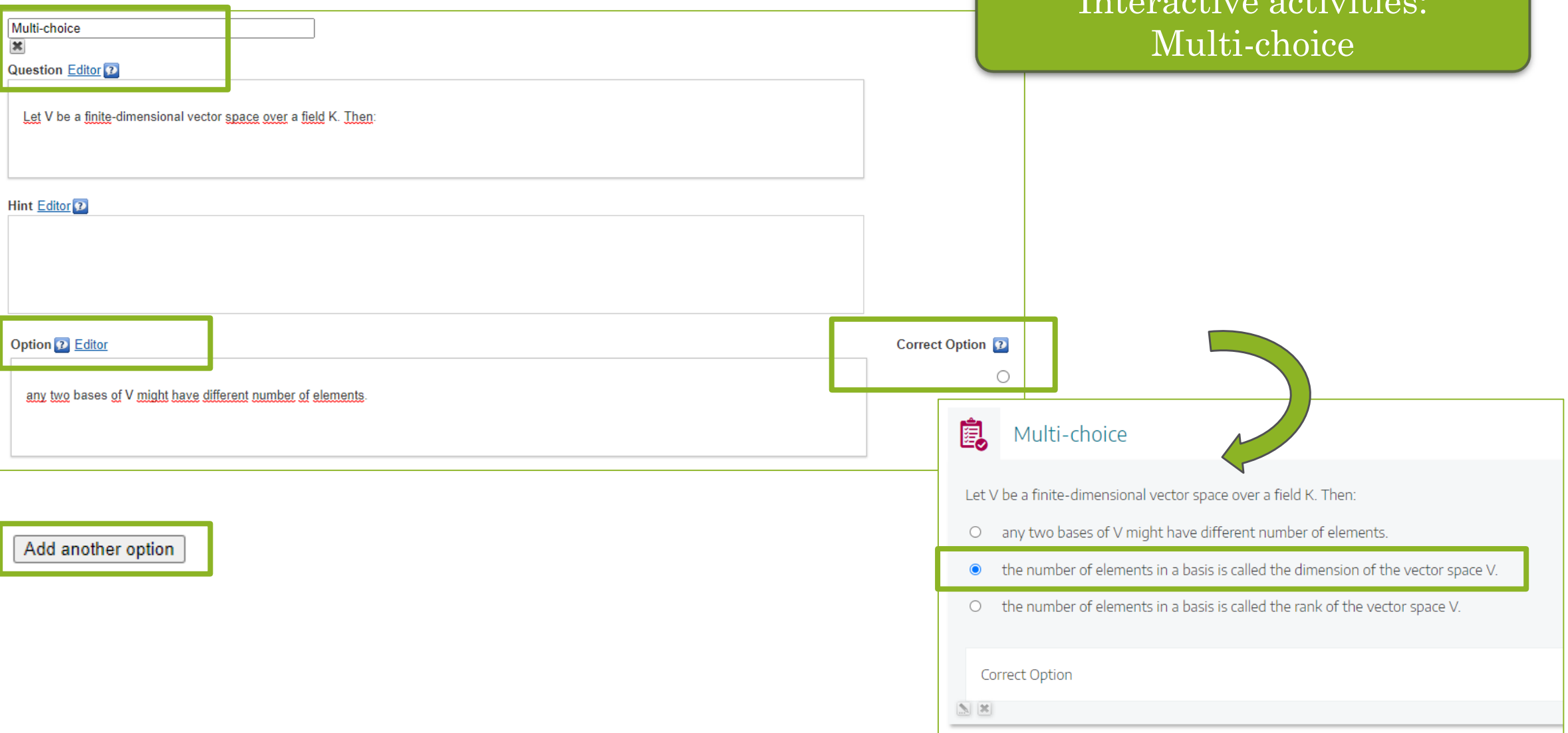
Feedback Editor

This statement is true (see Corollary 1.4.).



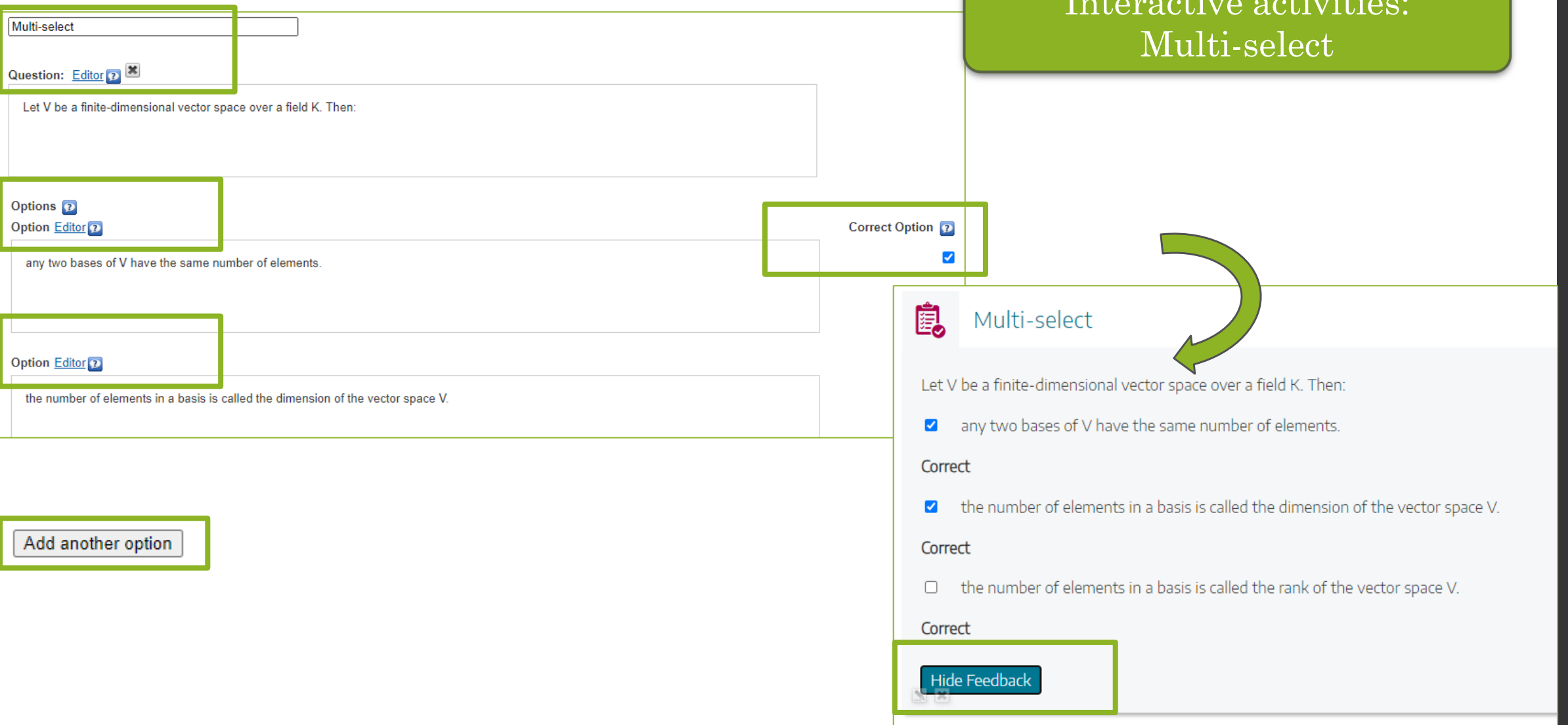
4. Creation and editing of digital content

Interactive activities:
Multi-choice



4. Creation and editing of digital content

Interactive activities:
Multi-select



4. Creation and editing of digital content

Interactive activities:
SCORM Quiz

SCORM Quiz

Question: Editor

Let V be a vector space over the field K, and let v1,...,vn be vectors in V. The vectors v1,v2,...,vn are linearly independent if

Options

Option Editor

whenever we have scalars c1,c2,...,cn satisfying c1v1 +c2v2 +···+cnvn = 0,then necessarily c1 = c2 = ··· = 0.

Option Editor

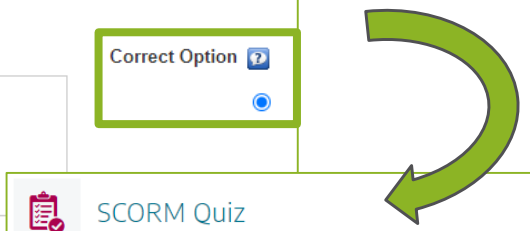
for every vector v ∈V, we can find scalars c1,c2,...,cn ∈ K such that v = c1v1 +c2v2 +···+cnvn. In this case, we write V = hv1,v2,...,vni.

Correct Option

Add another Option

Add another Question

Select pass rate: 50%



SCORM Quiz

Let V be a vector space over the field K, and let v1,...,vn be vectors in V. The vectors v1,v2,...,vn are linearly independent if

- whenever we have scalars c1,c2,...,cn satisfying c1v1 +c2v2 +···+cnvn = 0,then necessarily c1 = c2 = ··· = 0.
- for every vector v ∈V, we can find scalars c1,c2,...,cn ∈ K such that v = c1v1 +c2v2 +···+cnvn. In this case, we write V = hv1,v2,...,vni.
- if they form a basis for V.

Let V be a vector space over the field K, and let v1,...,vn be vectors in V. The vectors v1,v2,...,vn are spanning if

- whenever we have scalars c1,c2,...,cn satisfying c1v1 +c2v2 +···+cnvn = 0,then necessarily c1 = c2 = ··· = 0.
- for every vector v ∈V, we can find scalars c1,c2,...,cn ∈ K such that v = c1v1 +c2v2 +···+cnvn. In this case, we write V = hv1,v2,...,vni.
- if they form a basis for V.

SUBMIT ANSWERS

4. Creation and editing of digital content

Interactive Activity:
GeoGebra Activity

https://www.geogebra.org/m/y6Zy2Wzw

GeoGebra Activity

Content

Insert a GeoGebra activity from www.geogebra.org. It requires an Internet connection.

Instructions:

Edit Insert Format Table Tools

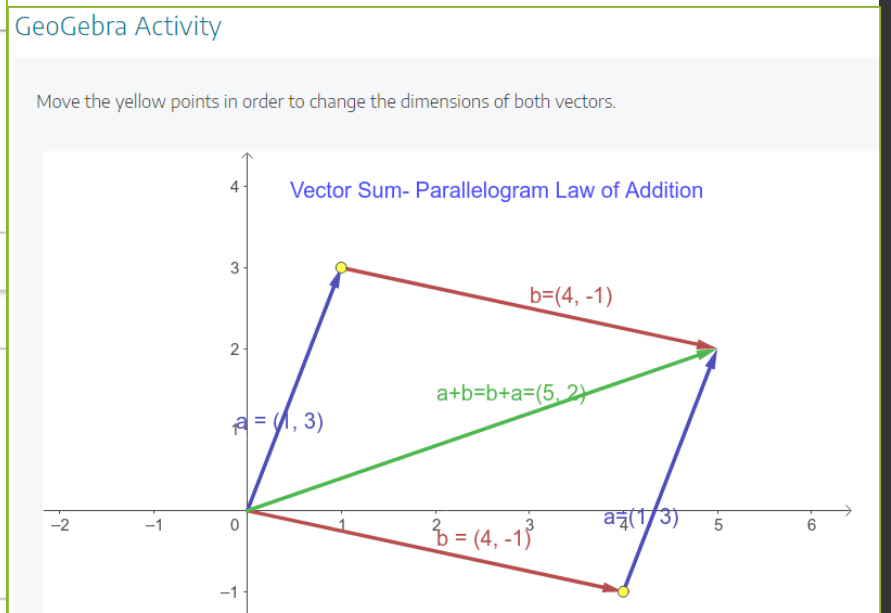
Paragraph 10pt Arial

Move the yellow points in order to change the dimensions of both vectors.

General Settings

URL: https://www.geogebra.org/m/y6Zy2Wzw Example: https://www.geogebra.org/m/VgHhQXCC

Width: 1000 px Height: 1000 px

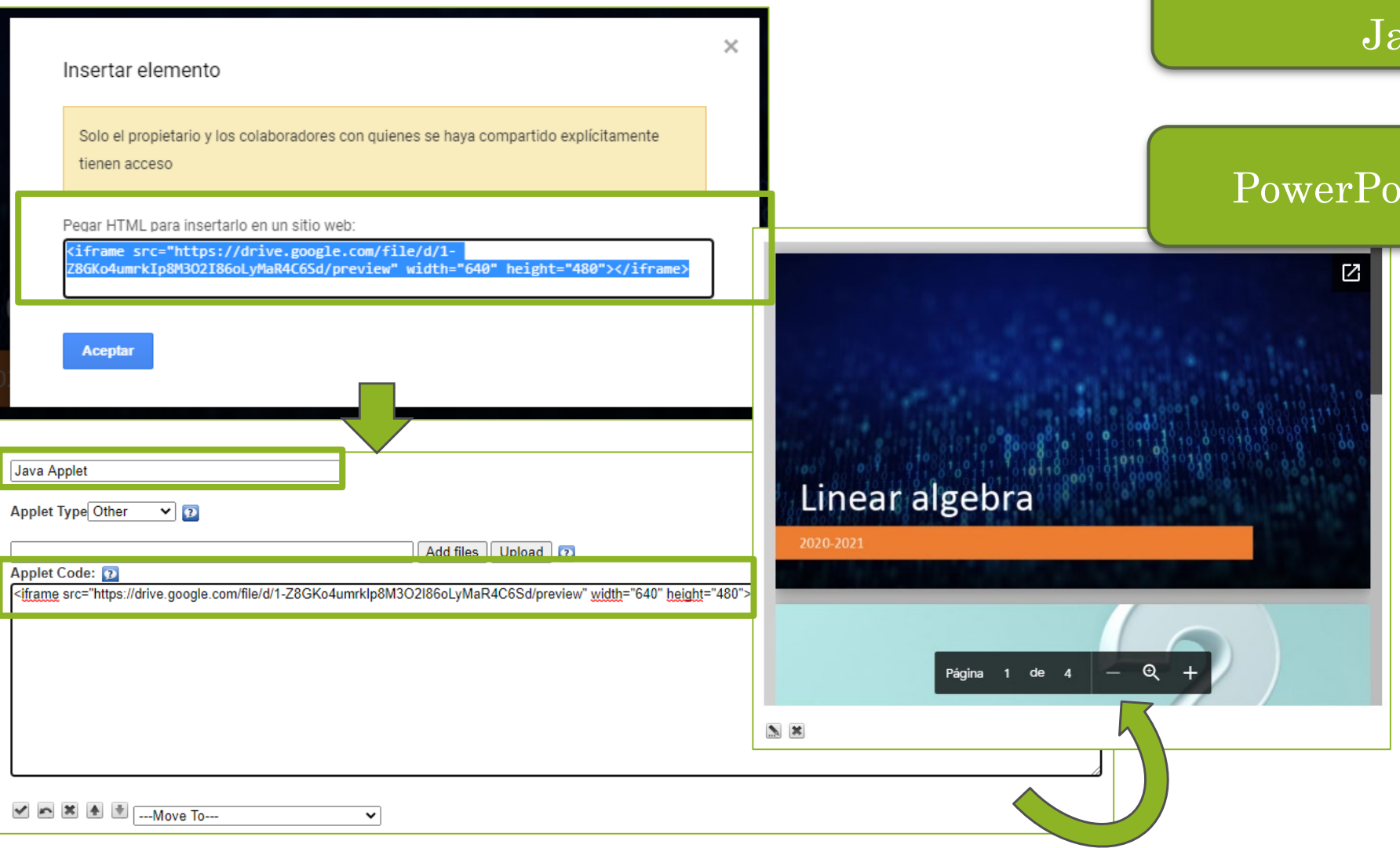


4. Creation and editing of digital content

Interactive Activity:
Java Applet

PowerPoint Presentation

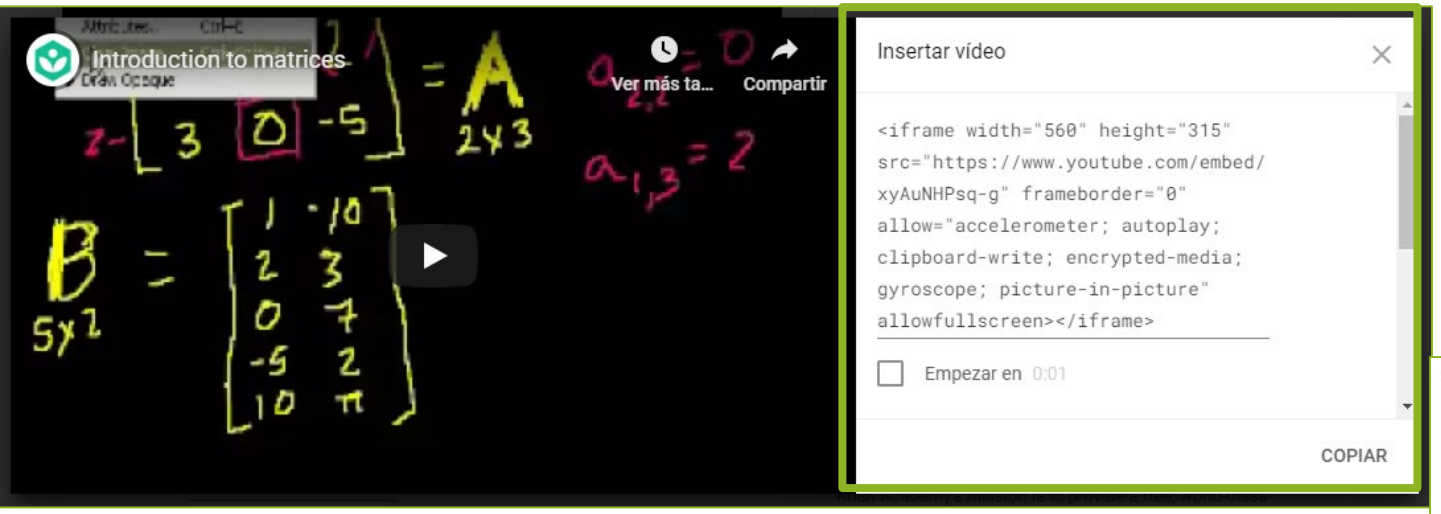
Drive

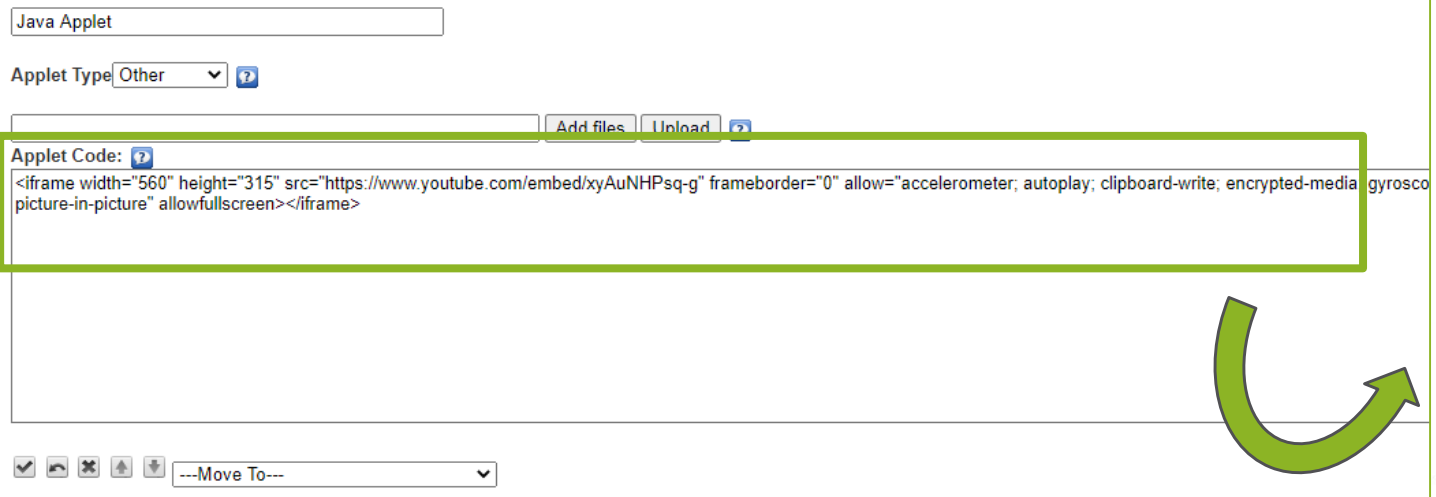


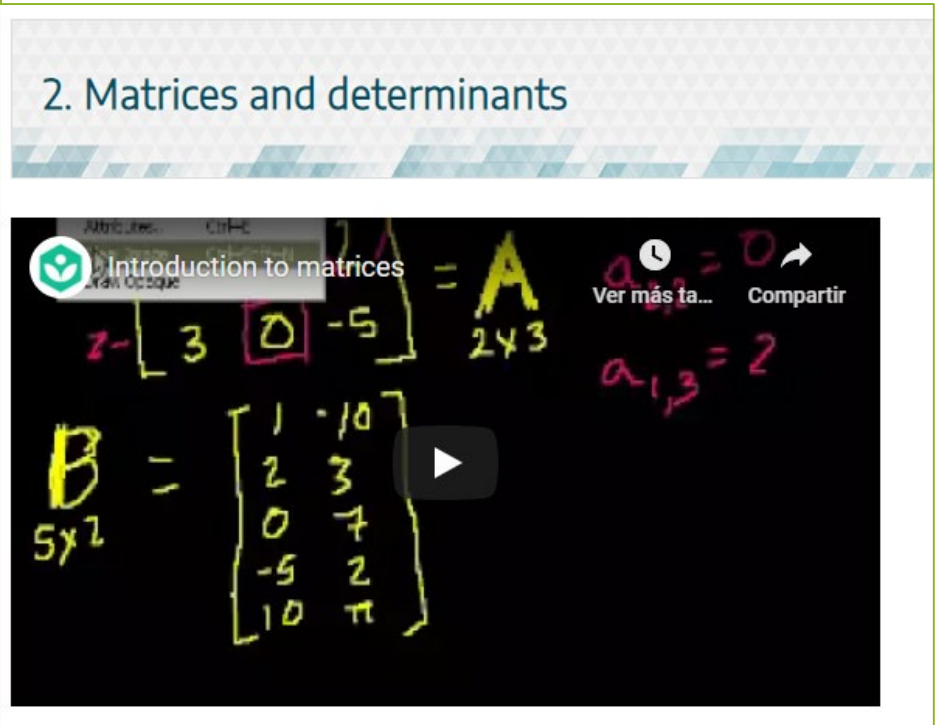
4. Creation and editing of digital content

Interactive Activity:
Java Applet

YouTube video



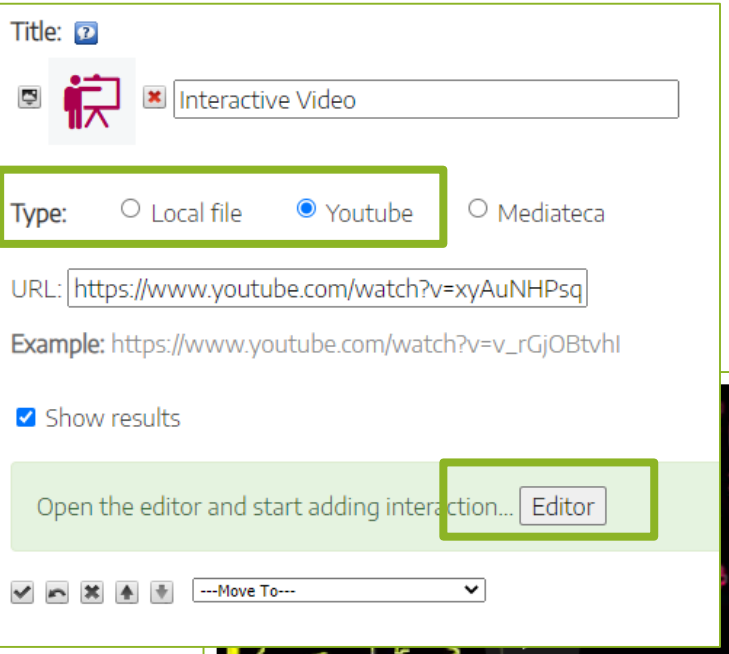


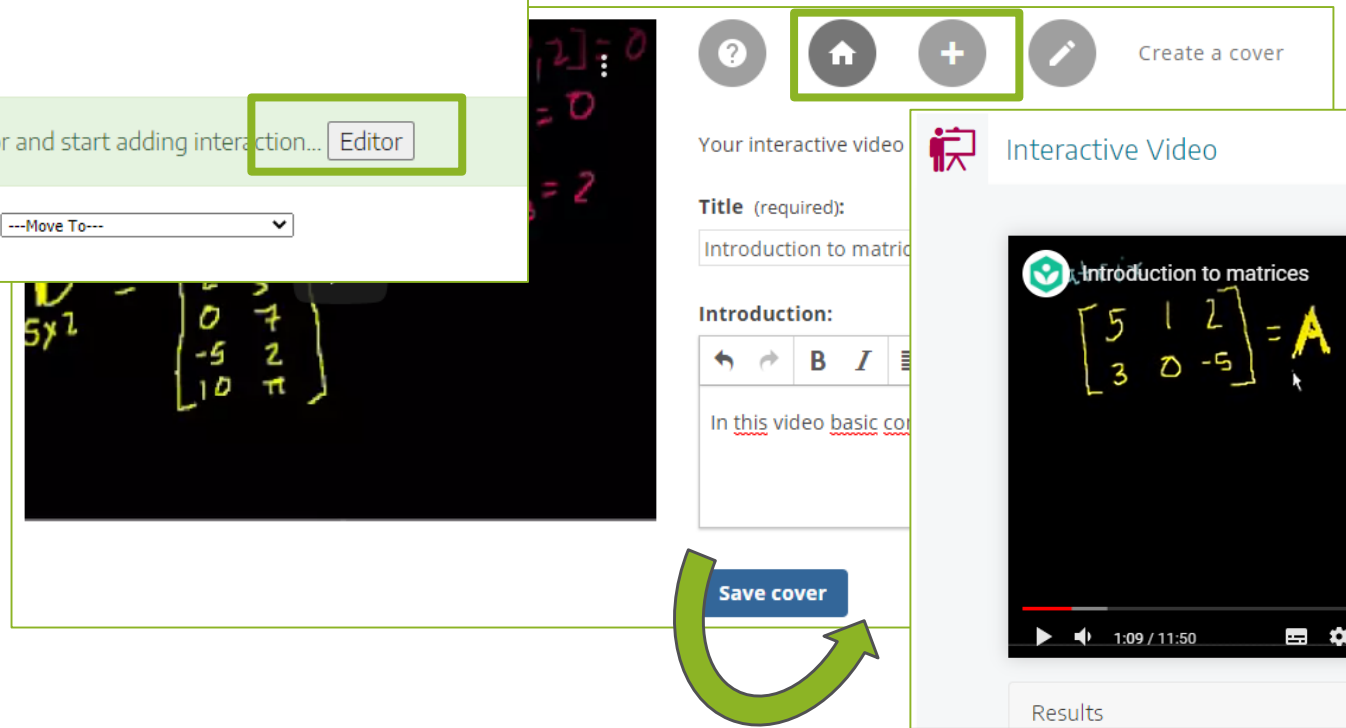


4. Creation and editing of digital content

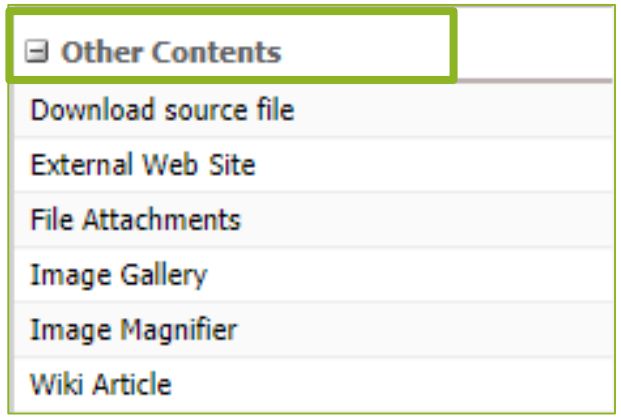
Interactive Activity:
Interactive video

YouTube video



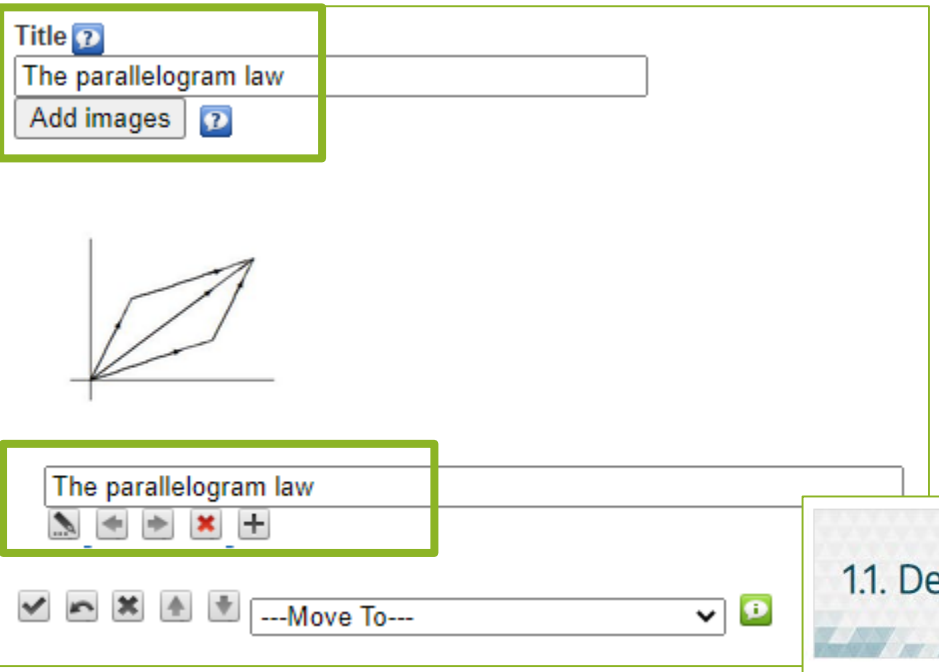


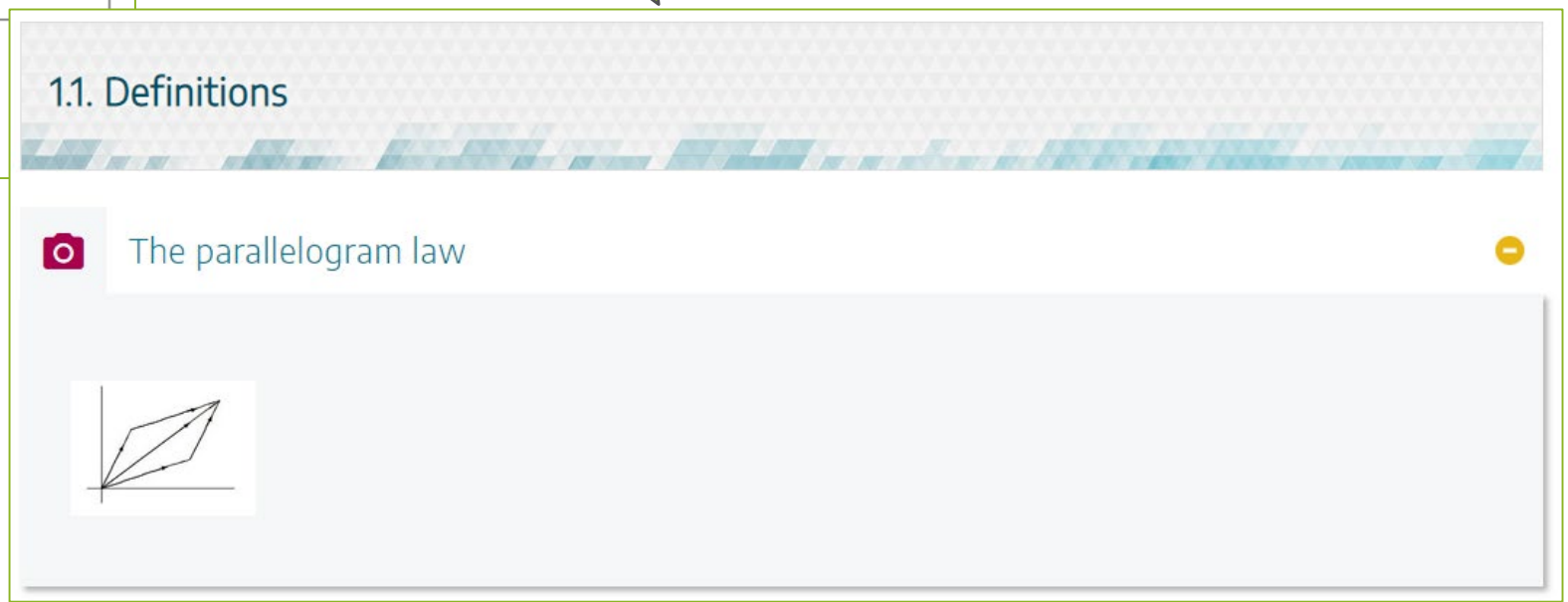
4. Creation and editing of digital content



4. Creation and editing of digital content

Other contents:
Image Gallery



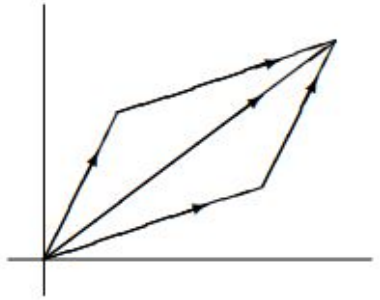


4. Creation and editing of digital content

Other contents:
Image Magnifier

Caption:
The parallelogram law
Text
Edit Insert Format Table Tools
Paragraph 10pt Arial
Think of a vector as an arrow starting at the origin and ending at a point of the plane.
Then addition of two vectors is done by the parallelogram law.
P

Think of a vector as an arrow starting at the origin and ending at a point of the plane.
Then addition of two vectors is done by the parallelogram law.
x3
100
The parallelogram law

Choose an Image:

Select an image
ParallelogramLaw.JPG
Display as:
100 pixels by 100 pixels. (blank for original size)
Align:
Left
Initial Zoom
100%
Maximum zoom
150%
Size of magnifying glass:
Medium
---Move To---

4. Creation and editing of digital content

Other contents:
Wiki Article

Wiki Article

Site
English Wikipedia Article

Linear algebra Load

Article

Edit Insert Format Table Tools

Paragraph 10pt

Emphasis
Some emphasis

---Move To---

Wiki Article

Linear algebra

From Wikipedia, the free encyclopedia

Jump to navigation Jump to search

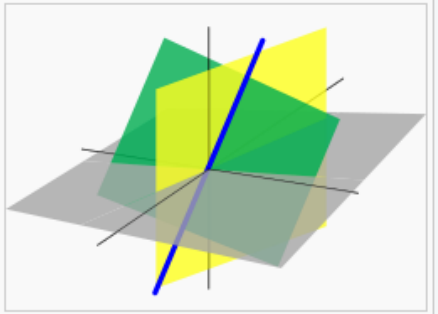
Linear algebra is the branch of mathematics concerning linear equations such as:

$$a_1x_1 + \cdots + a_nx_n = b,$$

linear maps such as:

$$(x_1, \ldots, x_n) \mapsto a_1x_1 + \ldots + a_nx_n,$$

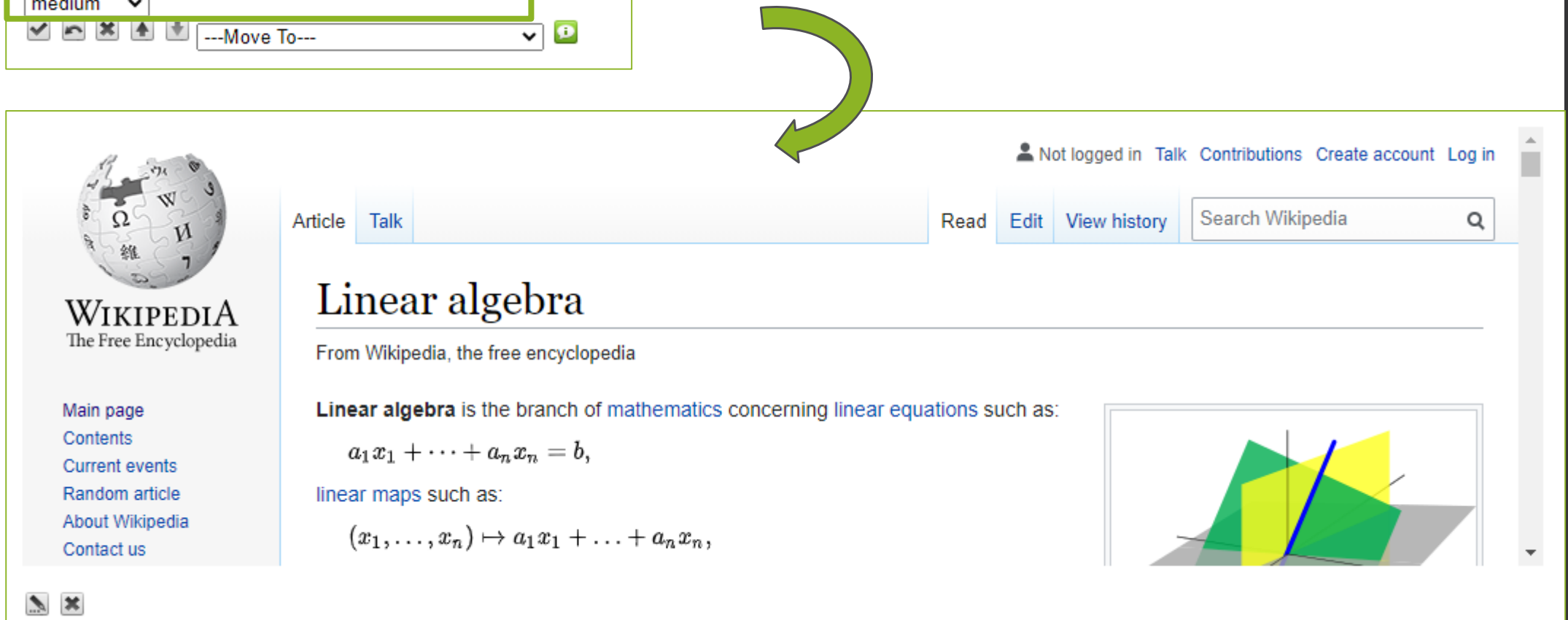
and their representations in vector spaces and through matrices.[1][2][3]



4. Creation and editing of digital content

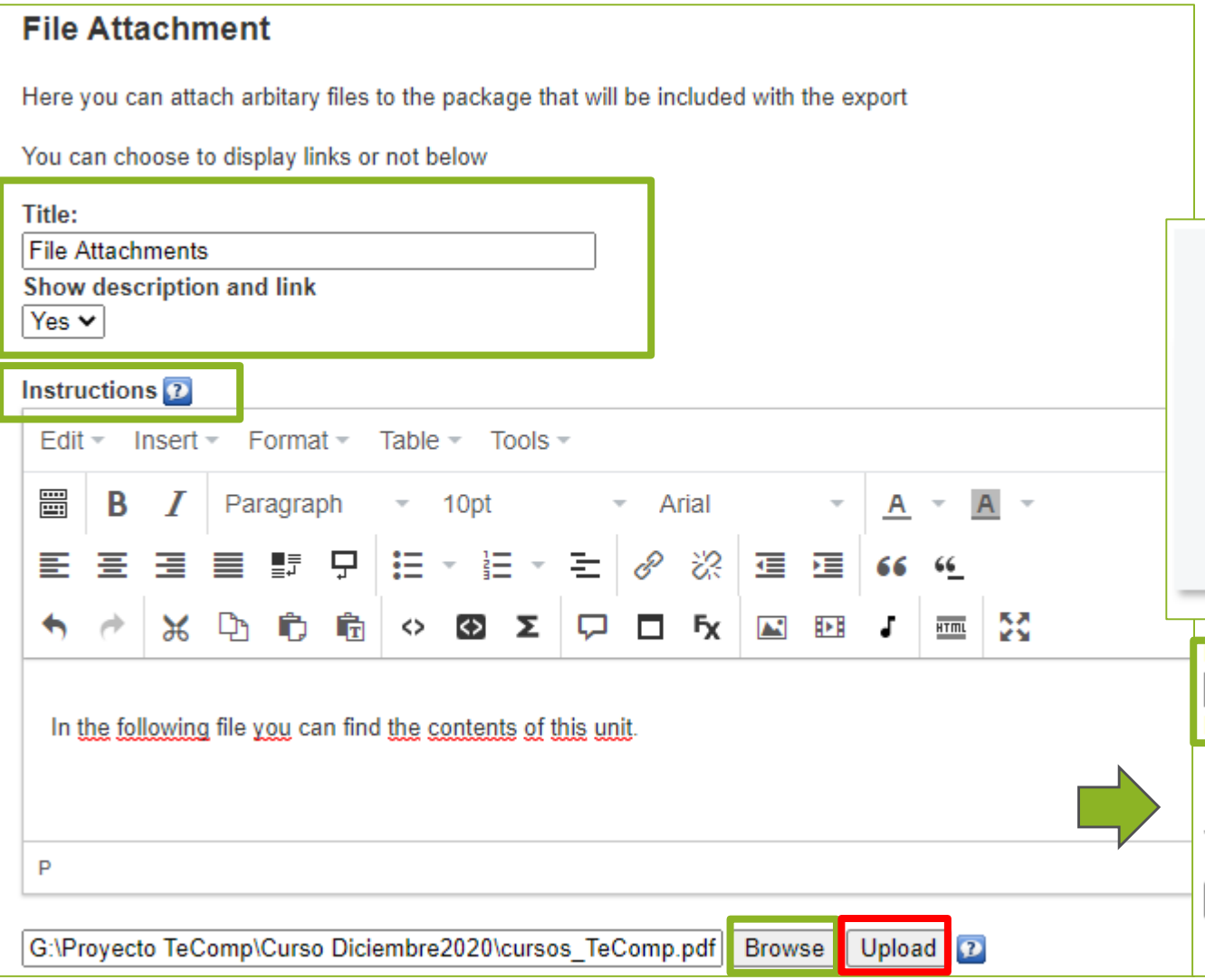
Other contents:
External Web Site

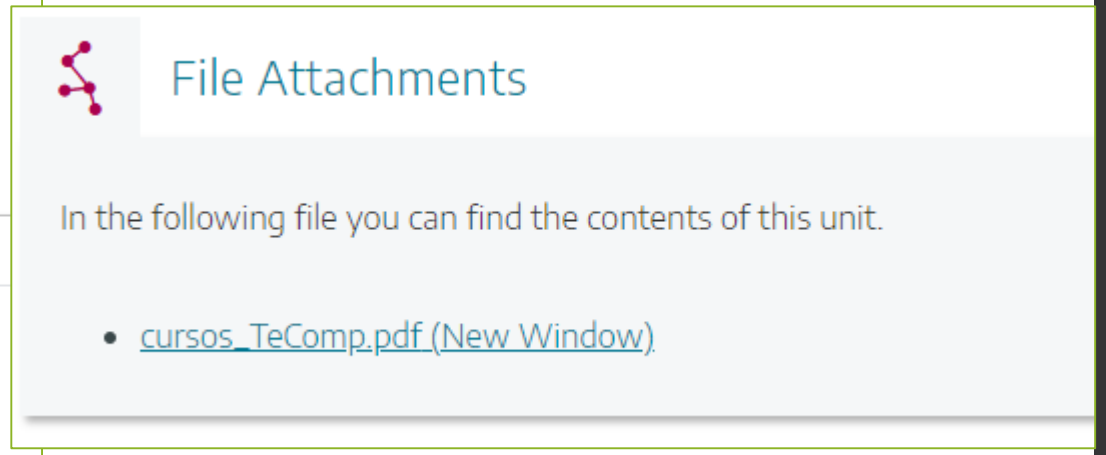
URL:
https://en.wikipedia.org/wiki/Linear_algebra
Frame Height:
medium
---Move To---

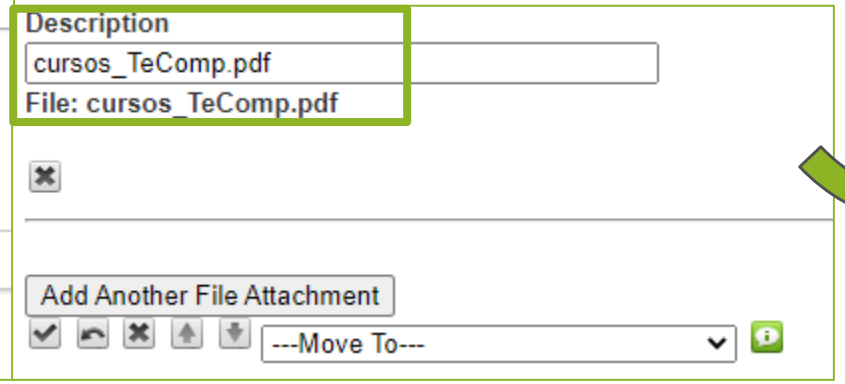


4. Creation and editing of digital content

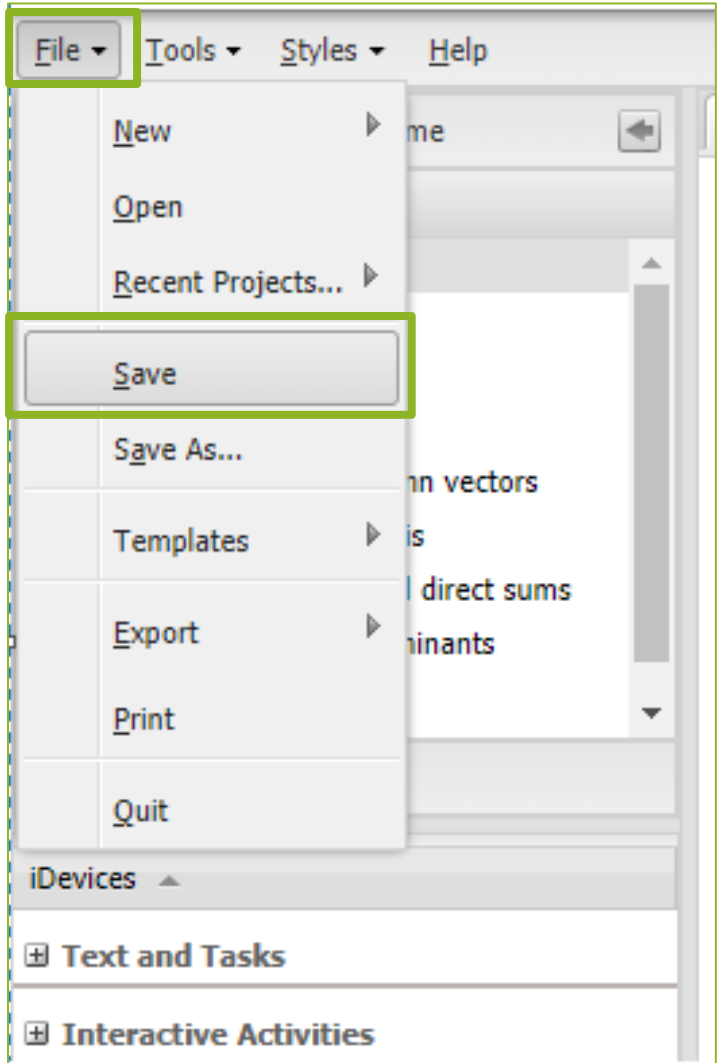
Other contents:
File attachments

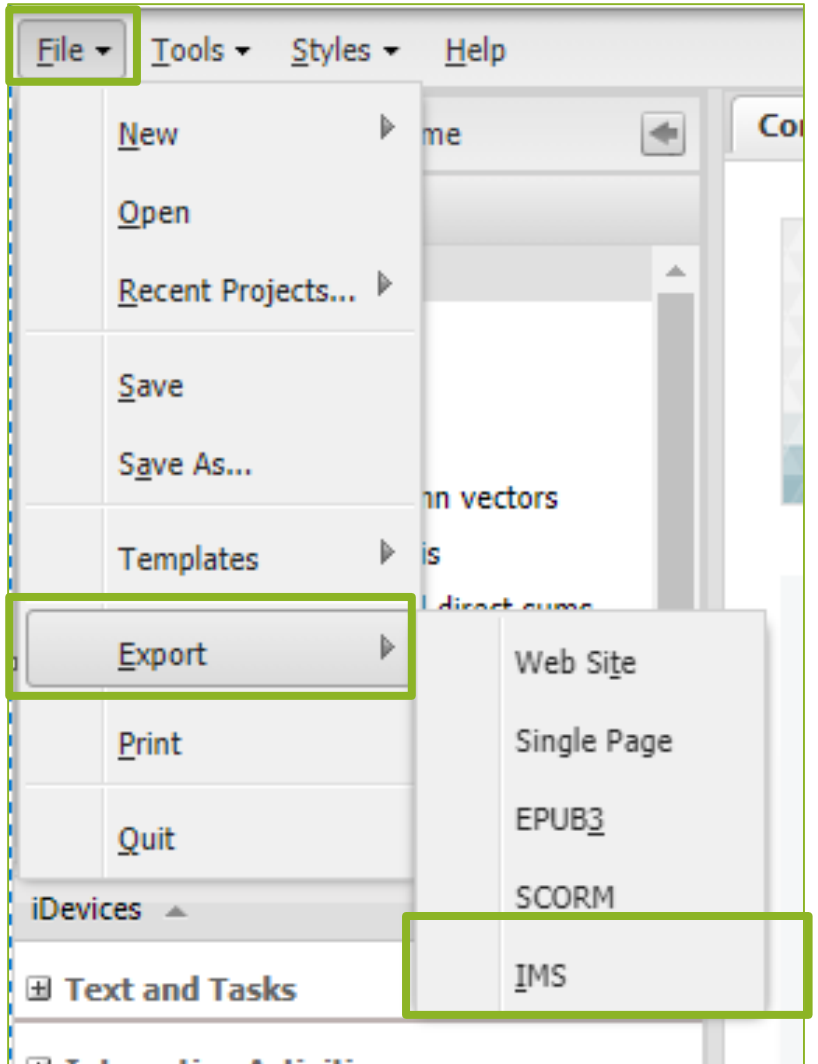




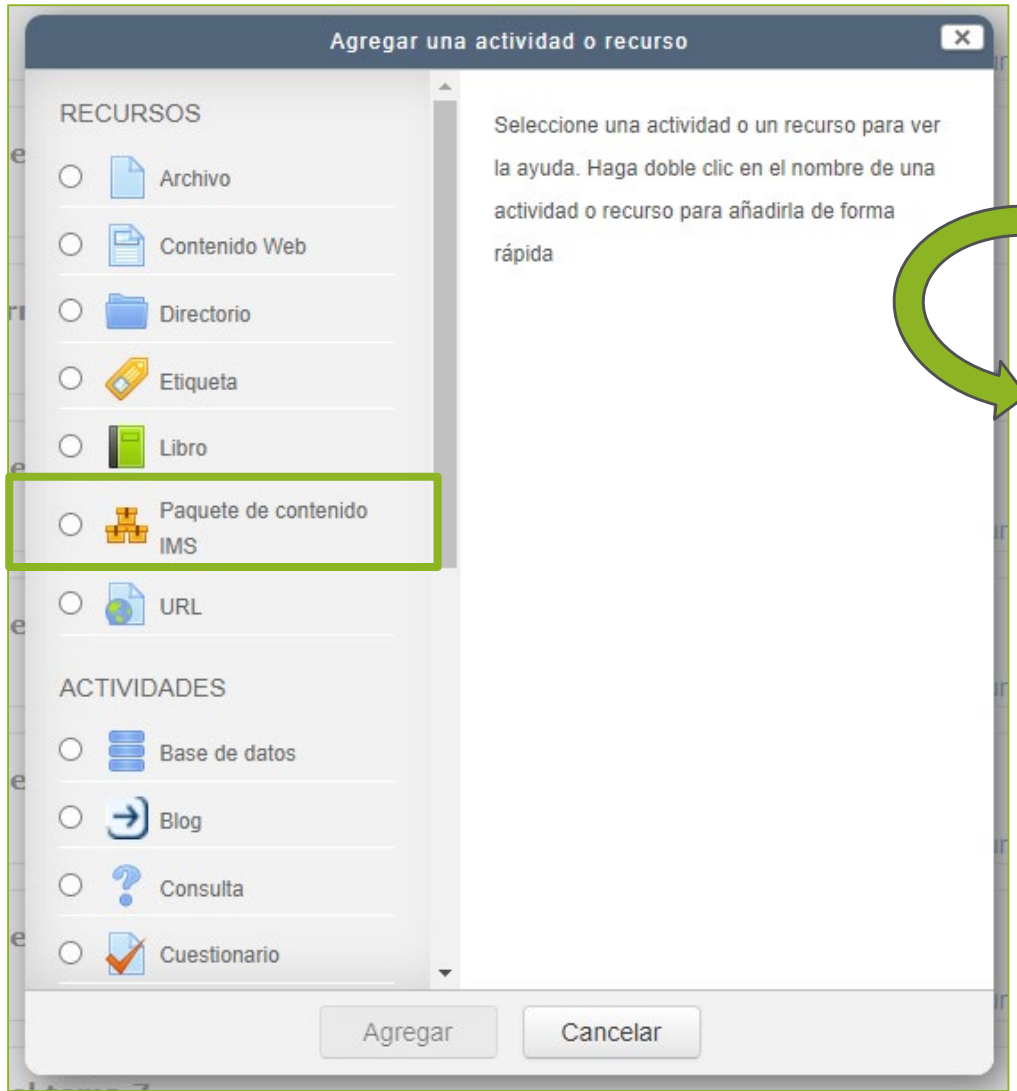


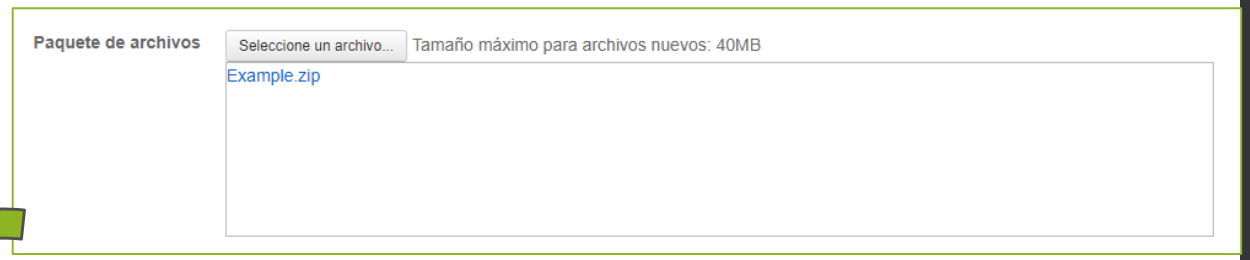
5. Export content created with eXeLearning

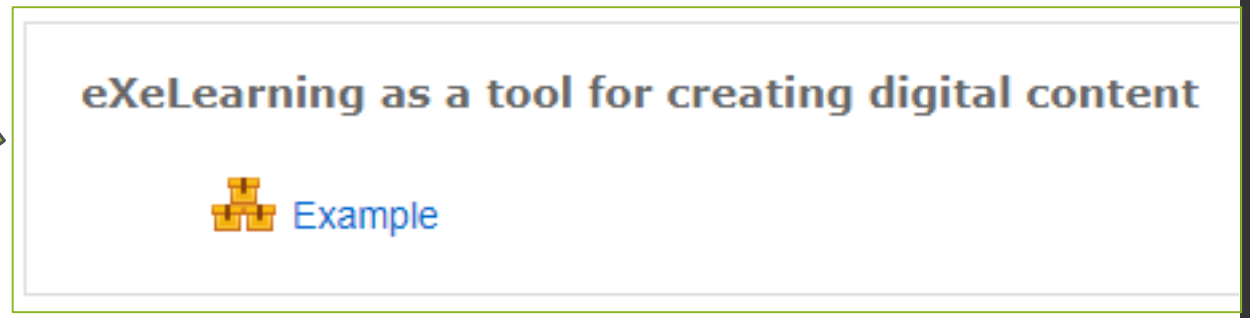


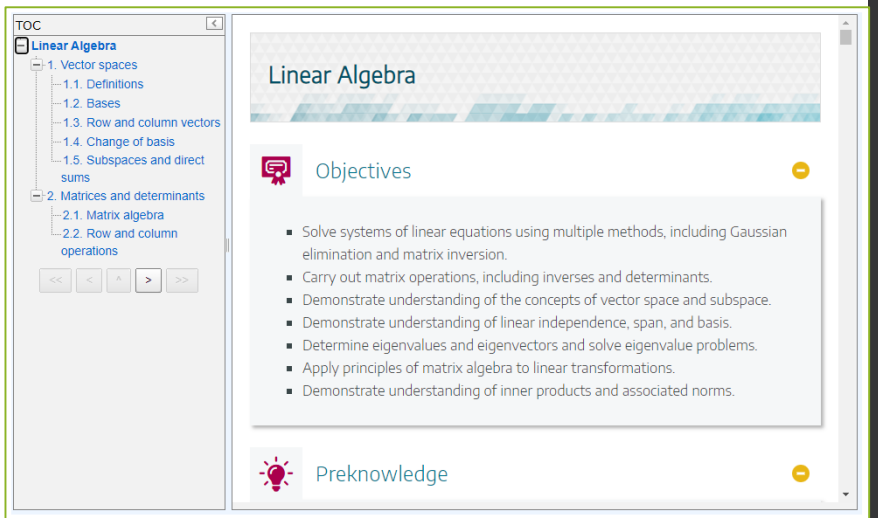


6. Upload eXeLearning content to a course in Moodle

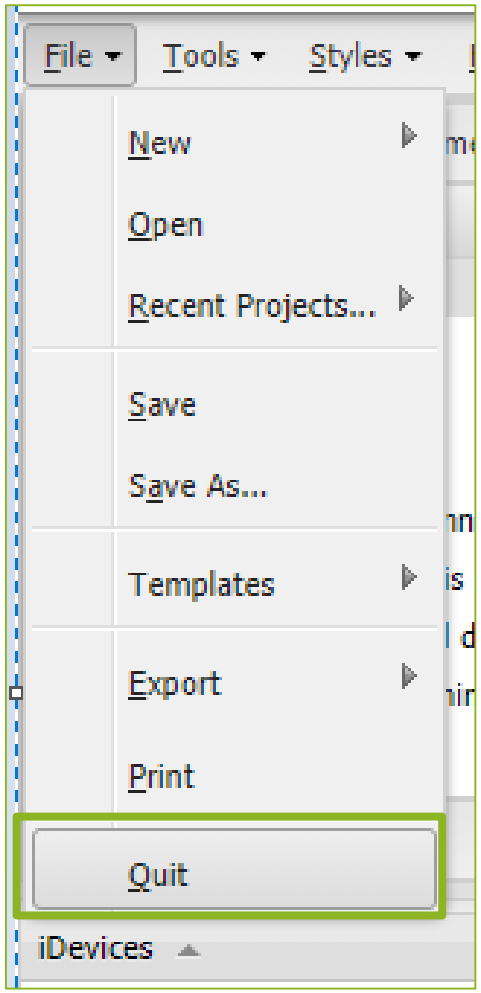


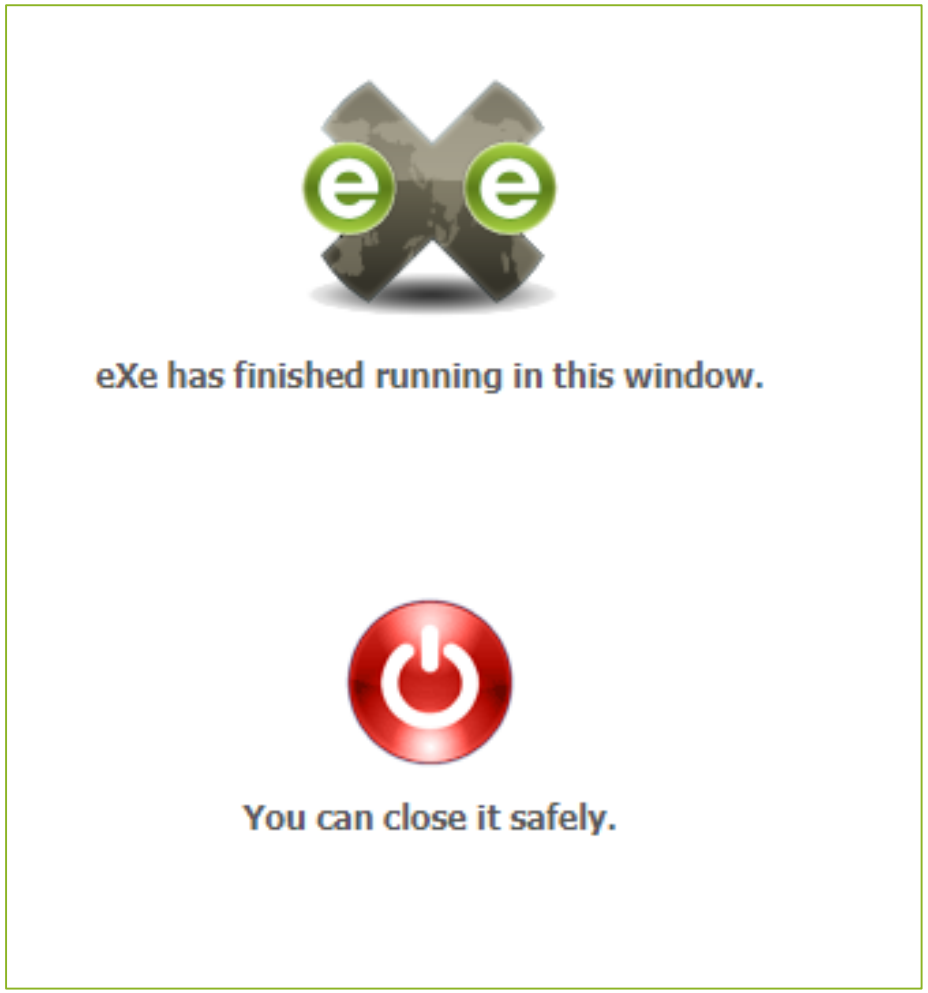






Attention!


File
Tools
Styles
New
Open
Recent Projects...
Save
Save As...
Templates
Export
Print
Quit
iDevices


eXe has finished running in this window.
You can close it safely.

Module 2A. eXeLearning as a tool for creating digital content

Laura Muñiz Rodríguez

munizlaura@uniovi.es

University of Oviedo

Universidad de Oviedo
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University of Oviedo