Scripts for the films about the apps of the story *Mathina wins a lot of new toys!* (4-6)

All the games begin and end in the same way:

Beginning

The initial image is projected during 5 seconds. The title includes: the name of the app (for instance “Mirror Maze”), the mathematical subject -- “Symmetry”, the corresponding age-group -- “4-6”, and a link to the app in the repository -- “https://...”.

Ending

Background: black screen. **White text displayed**:

- Mathina Project with the UE logo;
- List of partners with the corresponding logos;
- The educator’s repository address.

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Mathina

Scripts for the films about the apps:[1]

Game 1, Folding Images (I)...

1. **Background**: a static image of the app.

- Simultaneously, the following **voice-over** is heard:

  "*The wizard explains to Mathina what a symmetry axis is, by showing her some examples*.

  In this app, you can test if a given image has a vertical or a horizontal symmetry axis."

1. A **screen recording** is projected showing someone solving the app. **Voice-over**:

   "*Three objects are presented in the app: a bear image and two sliders.*

   You can drag the vertical slider to fold the image horizontally and check if the two parts overlap.

   As you can see, the two parts don't overlap, so that line is not a symmetry axis.

   Now, you can drag the horizontal slider to fold the image vertically and check if the two parts overlap.

   In this case, the two parts overlap, so that line is a symmetry axis.

   So, you can conclude this bear has a vertical symmetry axis."

Game 2, Finding the Good Toys

1. **Background**: a static image of the app.

[1] The text in italic represents the content of the voice-over.

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- Simultaneously, the following **voice-over** is heard:

  "*While playing in the Symmetry Fair, Mathina gets the chance to win new toys, by placing the "good" toys in the box.*

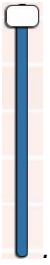
  So, the aim of this game is to choose the toys with symmetry axes and drag them all into the box."

2. **Screen recording**. **Voice-over**:

   "Which tools are available in the program?

   If in doubt, you can click  *.*

   In this menu, you can check if the image has a vertical symmetry axis by dragging the slider  *.*

   And you can check if the image has a horizontal symmetry axis by dragging the slider  *.*

   Now, you can go back to the main menu, by clicking  *."*

3. **Screen recording**. **Voice-over**:

   "*With this app, in a playful and interactive way, it is possible to select the images which have horizontal or vertical symmetry axes.*"

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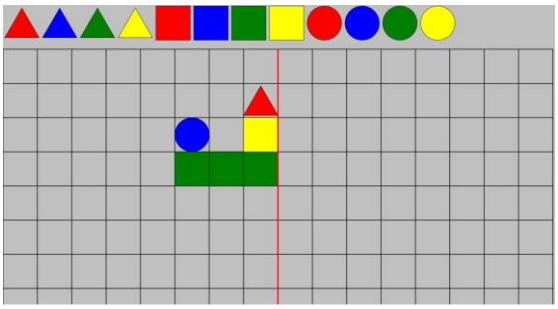
Game 3, Building Toys (I)

1. **Background**: a static image of the app.



- Simultaneously, the following **voice-over** is heard:

  "*While helping the wizard, Mathina gets a new challenge: to finish the symmetric toys which the wizard is building.*

  So, the aim of this app is to create symmetric images with respect to this red line."

2. A **screen recording** is projected showing someone building the first toy. **Voice-over**:

   "*To finish the toys, you should drag some coloured shapes and put them in the gray squares so that you create a symmetric image with respect to the red line.*

   If you are solving the game correctly, you will see a smiling face on the right: 

   But, when you make a mistake, a sad face appears: 

   And when the mistake is corrected, the smiling face reappears:  *"*

3. **Screen recording**: someone building the second toy. **Voice-over**:

   "In this app, 5 images are presented. Here, you can see the second image, which is more difficult than the first one.

   I'm going to solve it now."

4. **Screen recording**. **Voice-over**:

   "*With this app, in a playful and interactive way, it is possible to create images with vertical reflection symmetry.*

   The recognition of different shapes and colours is also explored in this app."

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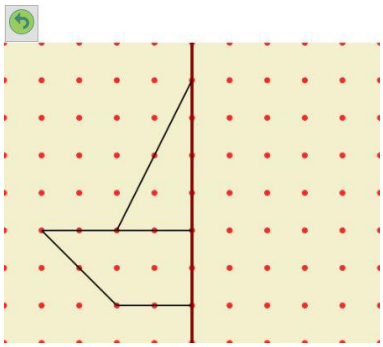
Game 4, Building Toys (II)

1. **Background**: a static image of the app.



- Simultaneously, the following **voice-over** is heard:

  "*After building some symmetric toys, Mathina tries to help Leo with a new and more difficult challenge.*

  The aim of this app is to create symmetric images with respect to the red line, by drawing lines."

2. A **screen recording** is projected showing someone building the first toy. **Voice-over**:

   "*And to finish such toys, you should draw lines joining 2 red dots.*

   If you are solving the game correctly, again you will see a smiling face on the right: 

   When you make a mistake, a sad face appears: 

   And when the mistake is corrected, the smiling face reappears:  *"*

3. **Screen recording** is projected showing someone building the second toy. **Voice-over**:

   "In this app, 5 images are presented. Here, you can see the second image, which is more difficult than the first one.

   I'm going to solve it now."

4. **Screen recording**. **Voice-over**:

   "Which tools are available in the program?

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- *whenever you make a mistake, you can go back, by clicking this button*  *."*

5. **Screen recording**. **Voice-over**:

   "*With this app, in a playful and interactive way, it is possible to create images with vertical reflection symmetry."*

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