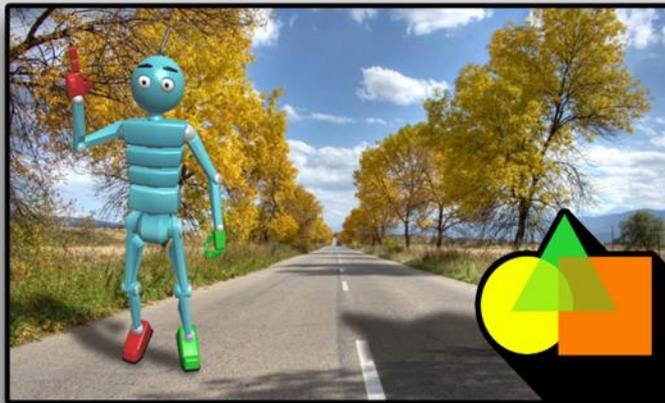




GUIDE FOR TEACHERS AND TRAINERS

Guide for teachers will help trainers and teachers who intend to use the learning games in their classroom, dyslexic consultations, seminars etc. The guide is aimed at **teachers and trainers who regularly work with dyslexic learners** as well as **teachers with less experience with dyslexic students looking for additional resources** for their work. In this respect, the teacher's guide will have impact on promoting inclusion at mainstream schools.

The development of the **DYS2GO** app is co-funded by the Erasmus+ Programme of the European Union. The app DYS2GO addresses both teachers/trainers as well as dyslexic young adults. It offers a range of mobile highly motivating and stimulating mini-learning games for a carefully selected range of skills known to be important for young dyslexic adults. They are based on perception training approaches. Please, look also for the teacher's guide.



Co-funded by the
Erasmus+ Programme
of the European Union



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✓ INTRODUCTION:

Dyslexia is a lifelong condition and affects 1 in 10 persons in Europe. Most people reduce dyslexia to just reading and writing difficulty. But dyslexia is a multi-faceted problem that affects not only literacy acquisition. A dyslexic person needs to train his or her perception skills on a regular base, otherwise inclusive education measures, for example, in VET, higher education or adult continuing training may fail. Such training is a prerequisite for phonological and orthographic processing. Inclusive learning requires accessibility of individual learning resources (for example, digital learning tools tailored to general or specific learning needs) to learn in a variety of ways that compensate for deficiencies. **Interactive exercises can help dyslexic persons to train specific skills.**

The main objective of **DYS2GO** project is the provision of a range of **mobile highly motivating and stimulating learning games** for a carefully selected range of skills known to be important for **young dyslexic adults**.

Mobile devices have indeed become immensely powerful (not only from a technical point of view) and popular especially with young adults and offer huge opportunities for learning "anywhere and anytime" especially for youngsters. There is a lack of interactive exercises which can help young dyslexic persons to train specific skills. Therefore, **DYS2GO** project has developed the training tool that considers and addresses the **preferences of young dyslexic adults** (the games targeted especially at young adults) from the age of 16 onwards.

✓ TO WHOM ARE GAMES FOR? WHO WILL BENEFIT FROM GAMES?

As a teacher or a trainer you get an educational material to use in your training. **DYS2GO** games are not like "usual" game for youngsters on the Internet – and should not be introduced as such. It is necessary to emphasize the **focus of the Learning Games – that the students can develop skills playing the games**.

DYS2GO learning games will addresses:

- **dyslexic young adults**: using games as a self-learning tool provides opportunity young dyslexic adults to develop skills so important in their efforts to overcome the difficulties caused by dyslexia and to find a better realisation of their potential in all aspects of life

DYS2GO games, of course, could be used as part of the structured classroom/group activities, so they will be a valuable tool for:

- **SEN teachers, tutors and trainers** working with dyslexic young adults
- **teachers at schools** (inclusion)

✓ HOW TO DOWNLOAD DYS2GO GAMES?

To install DYS2GO games you can use:

- <http://dys2go.eu/> - link to DYS2GO app directly from the project website
- Google Play: DYS2GO
- Apple Store: DYS2GO

✓ AVAILABILITY OF LEARNING GAMES - TECHNICAL BACKGROUND

The games will be **available** for **mobile devices (Android, Apple IOS)** as well as for **Windows desktop (also Windows tablets)**. The learning game apps will be accompanied by a teacher's guide on how to use the apps in the classroom. Apps will be available for free in English, German, Czech, Latvian, Lithuanian, and Bulgarian language.

HARDWARE AND SOFTWARE REQUIREMENTS

Microsoft Windows

The software is designed to work with Windows 10. It will probably run without problems on Windows 7 and 8 systems, but there will be no special DYS2GO support for these systems. From a hardware point of view, the software should run on any computer or tablet that has a Windows 10 system installed. The official minimum system requirements to install Windows 10 are:

- Processor: 1 GHz (or faster) processor
- RAM: 1 GB for 32-bit OS or 2 GB for 64-bit OS
- Hard disk space: 16 GB for 32-bit OS or 32 GB for 64-bit OS
- Graphics card: Supports DirectX 9 or higher with WDDM 1.0 driver
- Display: 800 x 600 pixels

However, these basic requirements for a Windows 10 system are rather low, and the DYS2GO software might be slowed down by poorly dimensioned hardware. Therefore, the recommended system requirements for DYS2GO are:

- Processor: 1 GHz (or faster) processor
- RAM: 4 GB or higher
- Hard disk space: 256 GB or higher
- Graphics card: Supports DirectX 9 or higher with WDDM 1.0 driver
- Display: 1366 x 768 pixels or higher

Google Android

Android-based systems account for about 87% of the smartphone and tablet market. The DYS2GO app will support Android versions 6-10. So far, smartphones and tablets with Android versions 6-8 (Marshmallow, Nougat, and Oreo) and version 9 (Pie) account for approximately 66% of all devices. Therefore, the project aims at supporting these OS versions as well as Android 10 (23% market share). However, Android devices come from a lot of manufacturers and range from basic low-cost versions to high-end gadgets. Because of the diverse combinations of devices and OS versions, DYS2GO might not run on older devices.

Apple IOS

The project will support the current Apple IOS versions 13 and 14. The project will also aim to support versions 10 to 12 (version 10 being the latest version that supported the iPhone 5 and the iPad 4).

✓ STRUCTURE OF THE LEARNING GAMES

DYS2GO - Learning games for dyslexic young adults is the project emphasises the game-like approach of the learning or training modules for dyslexic people. This approach is supported by the fact that DYS2GO does not strive to teach content but aims to improve auditory and visual skills as well as spatial awareness.

The project has developed **206 learning games**. Learning games are free of charge and available in 6 languages (English, German, Bulgarian, Czech, Lithuanian and Latvian).

DYS2GO has provided a stimulating learning environment for a carefully selected range of skills known to be important for young dyslexic adults. The **learning games are structured to these 7 areas**. The areas have been chosen based on research which suggests they will stimulate parts of the brain that are active in many activities including reading. This means that development of these skills could help the ability to improve literacy skills.

The areas are targeted through direct and indirect stimulation, the areas are:

1) Auditory Discrimination

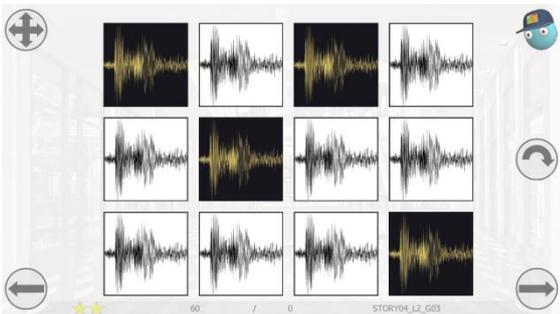
18 games



Auditory discrimination is about the distinguishing between two or more sounds as pitch and tone. There are several types of “sounds”, including language dependent, music dependent and general “life” sounds, and they are inter-related, though different.

2) Auditory Memory

18 games



Auditory memory span may be considered to be the number of items the memory can store, and is usually seen as a sequential storage and retrieval function.

3) Auditory Sequence

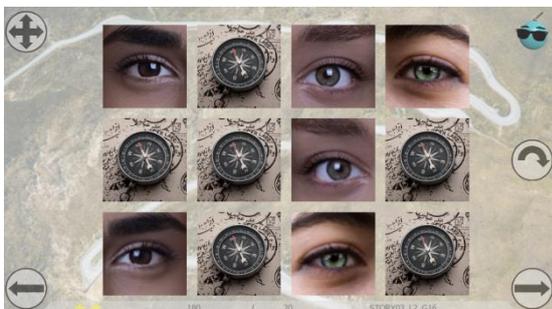
52 games



In many cases we need to not only recall the events, but also the order in which they occurred. The tasks presented here provide simulation of the auditory processes and allow the learner the opportunity to develop skills to not only remember, but to recall sequences.

4) Visual Discrimination

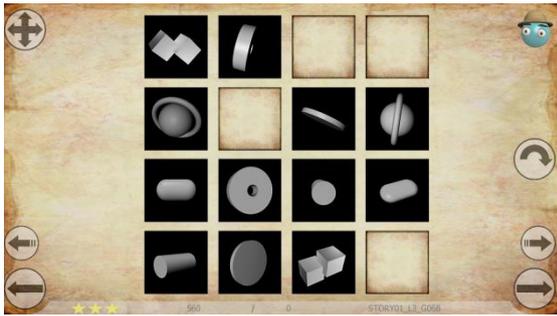
34 games



Visual discrimination is about the distinguishing between two or more images, either presented at the same time or one after the other.

5) Visual Memory

29 games



There are many different types of visual memory, but the ones we shall focus on are those associated with literacy. In this area we are concerned about recognising a shape and holding it in some form of short term memory, and then transferring it to long term memory.

6) Visual Sequence

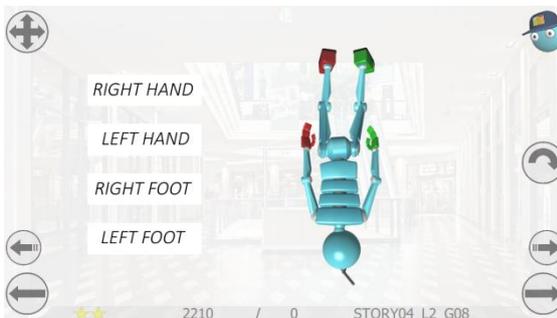
18 games



Visual sequence is about presentation of visual information on a timeline. Visual sequencing is about storing and recalling the visual images in the same order as they were perceived.

7) Spatial Position

37 games



Many dyslexics have problems with spatial awareness, and in particular expressing themselves in terms of “movable” relationships. For example “up” is clearly a fixed position. But if two people face each other, what is to the left for one person is not to the left for the other.

✓ HOW TO START AND OPERATE THE GAMES

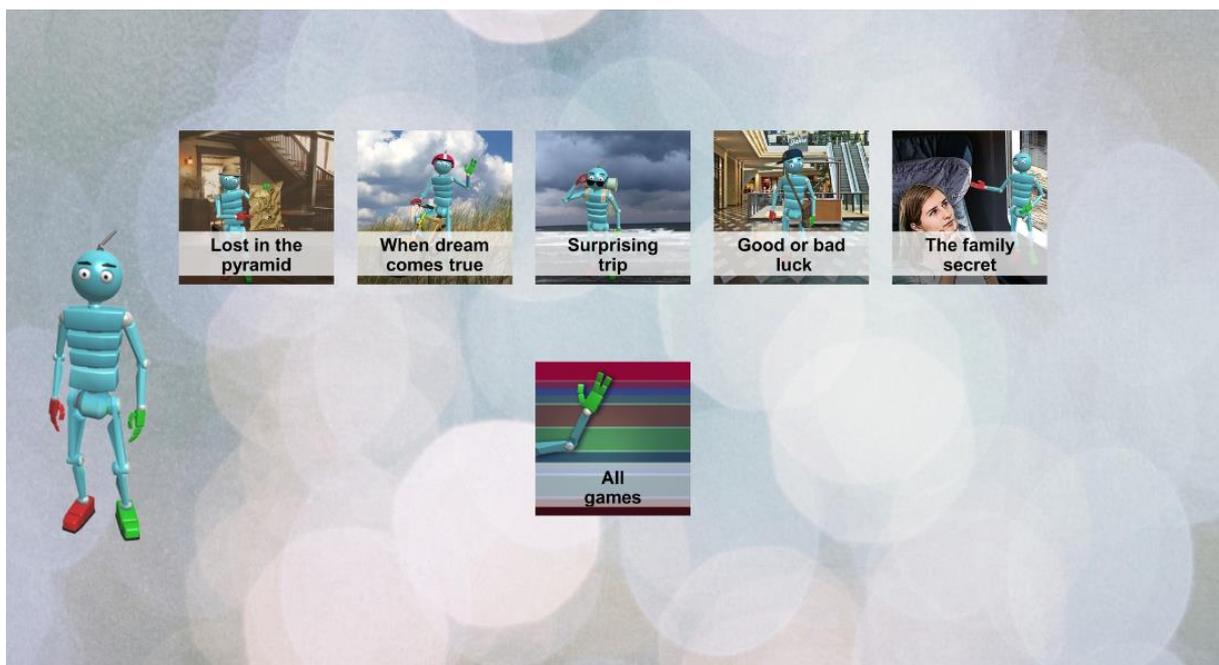
After downloading:

- **Select the language version**



- **You will see the Main Menu**

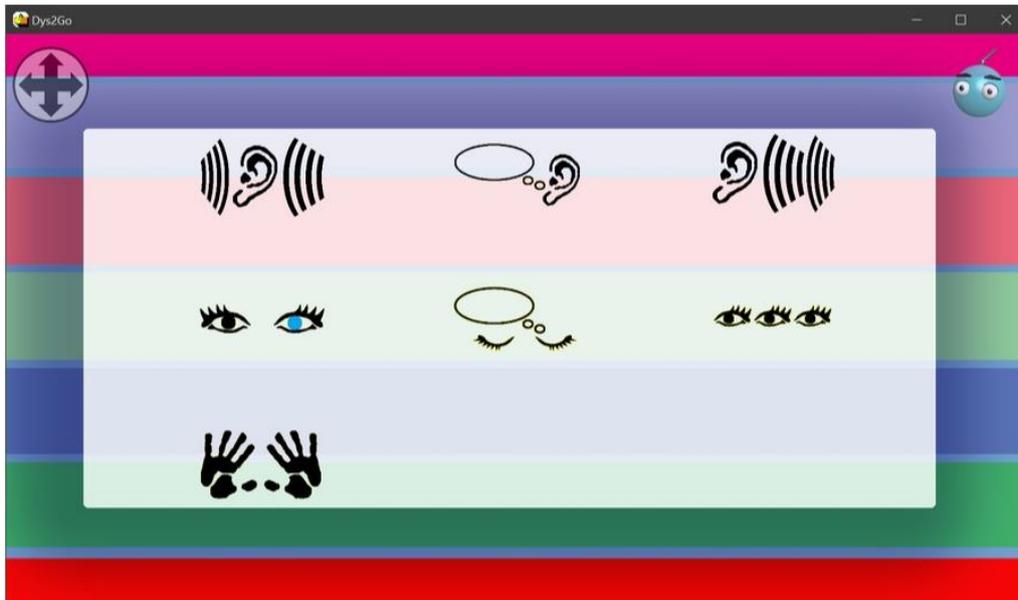
A player will choose how to be involved in DYS2GO learning games: A) play **single games** to train specific skills (pedagogical type) or B) play **storylines** including all pedagogical types.



Single games

Learning games are structured according to pedagogical types into **7 areas**. A player will choose the skills he/she would like to practice. Each area has storage of several learning games to train specific skills.

Index of games: Click on symbol and under each symbol there are structured particular games.



 Auditory discrimination

 Auditory Memory

 Auditory Sequence

 Visual Discrimination

 Visual Memory

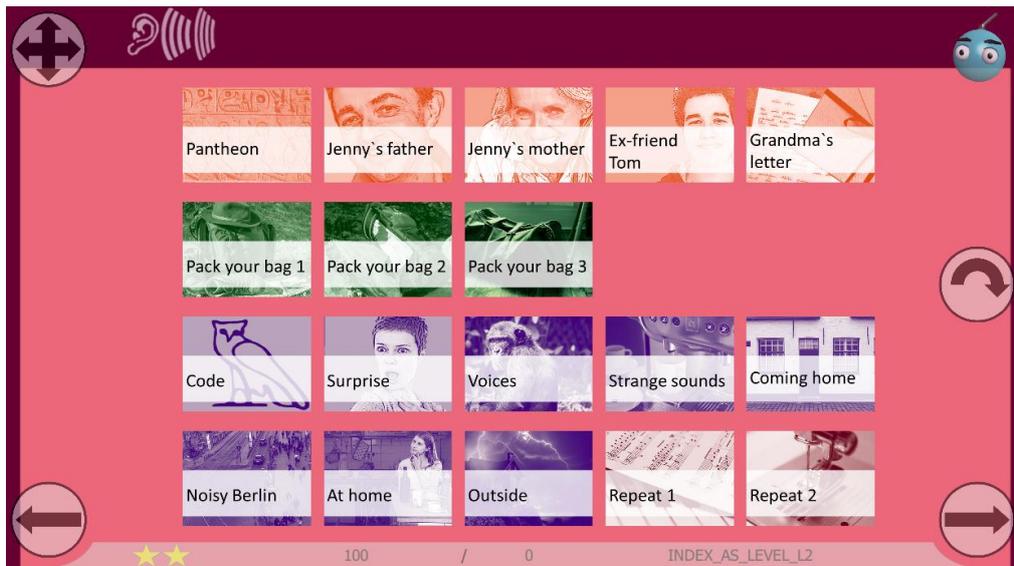
 Visual Sequence

 Spatial Position

You will choose the level by clicking on the appropriate symbol.

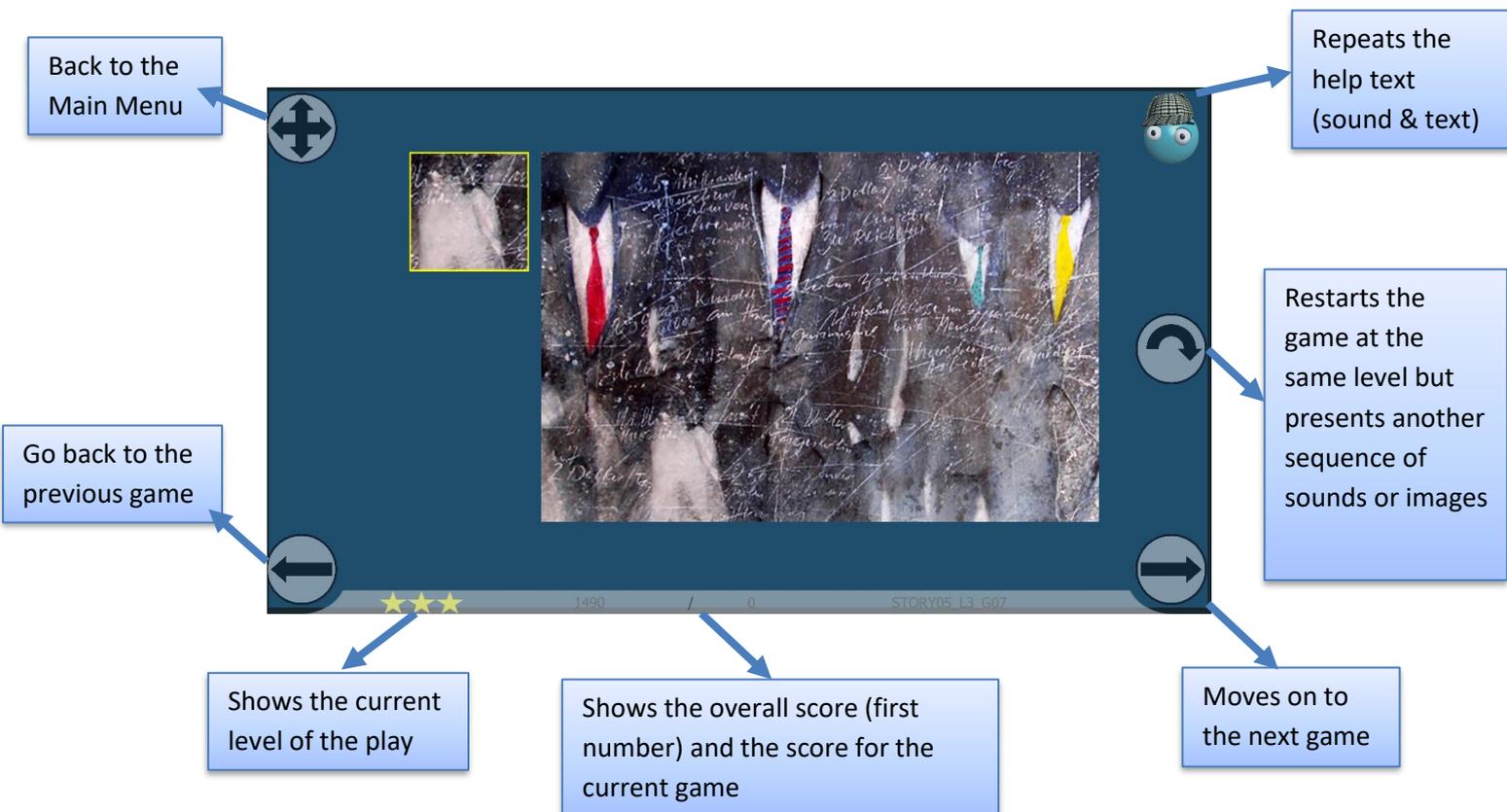


There is the Index of games listed under each area.



You will choose one and start playing the learning game.

Game screen



A) Storylines

Storylines are short stories including a mixture of learning games composed of various pedagogical types of games. The learning games are compiled into stories (adventure, detective, mysterious) which make learning for youngsters more challenging and attractive.

There are 5 storylines in DYS2GO games:



Lost in the pyramid



This is an interesting story about the world of Ancient Egypt. In this story, the main character can be you, but only if you follow me. I am Robbie, a friendly robot with an adventurous spirit. I will lead you into the world of mysterious pyramids, where you will encounter serious obstacles. In order to overcome them, you will need to be careful, act quickly, think logically, be prudent and not give up in the middle of the road. Be the hero in this story. I am waiting for you.

Good or bad luck



Good or bad luck? Extraordinary day in the shopping center.

The story is about youngster Robbie who prepares a party for friends. But first Robbie has to go shopping and buy some food, drink etc. Robbie appears in the middle of a big shopping center. Robbie has a clear idea of what to buy but one obstacle follows another one.....unexpected adventure in never-ending corridors of the shopping mall begins....join and help Robbie!

When dream comes true



In the story, you will meet a young boy Tomas who was diagnosed as having dyslexia at the age of 8. During his leisure time, Tomas trains skills to achieve his goal of being an archaeologist like his grandfather. On sunny days, Tomas prefers to go outside and spend time at the beach while on rainy days he prefers to stay at home and play training games. Tomas has a dream....

Play the games together with him to find out if Tomas' dream will come true.

Surprising trip



The story is about a young adult named Teodors who would like to travel around the world and explore several places, but he has some difficult situations to solve. He would be happy for your company! Will you join him?

The family secret



The story is about Jenny's dilemma (which may have many youngsters too) and a family secret.

Jenny is in age of 16 and lives in Austria with her dad only in a very nice wine area that is in 30 km distance of Vienna. She feels so sad, she is so much dissatisfied. It is about her father, her mother (separated from the family), her boyfriend ... It is about everything. She decides to have a break from everything... and leaves to Berlin, to her mother. There she will be faced with a family secret. At the end of the story she will not have

revealed the secret only, she will also find a vision for her future life.

Robbie is a friendly and motivating robot who will guide the player through a chosen storyline. The learning games are included in the stories, which make learning more interesting.

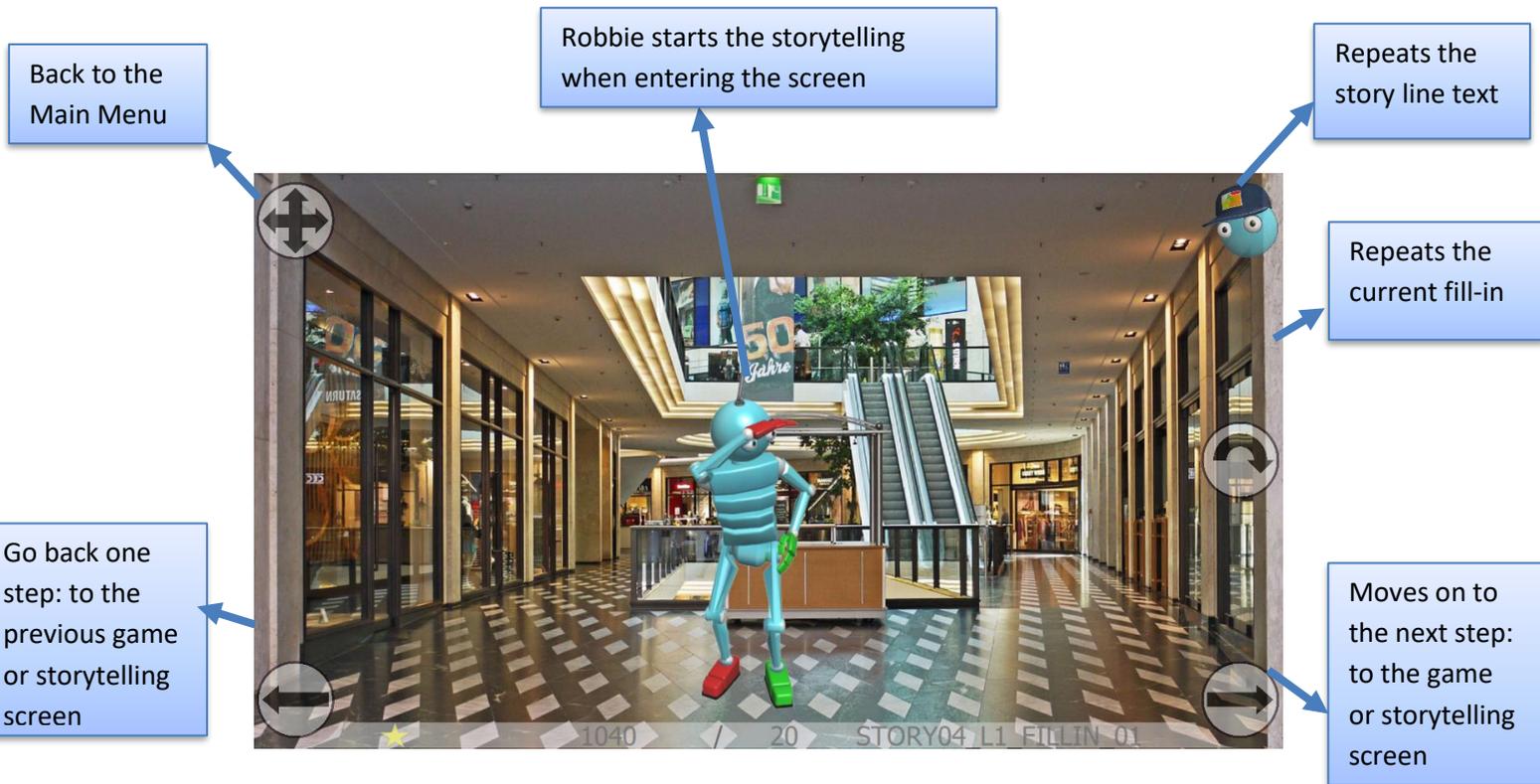
Each storylines have **3 levels of difficulty**. The user will choose a level by clicking on the appropriate symbol.



Each storyline has 2 parts: Storytelling and Games.

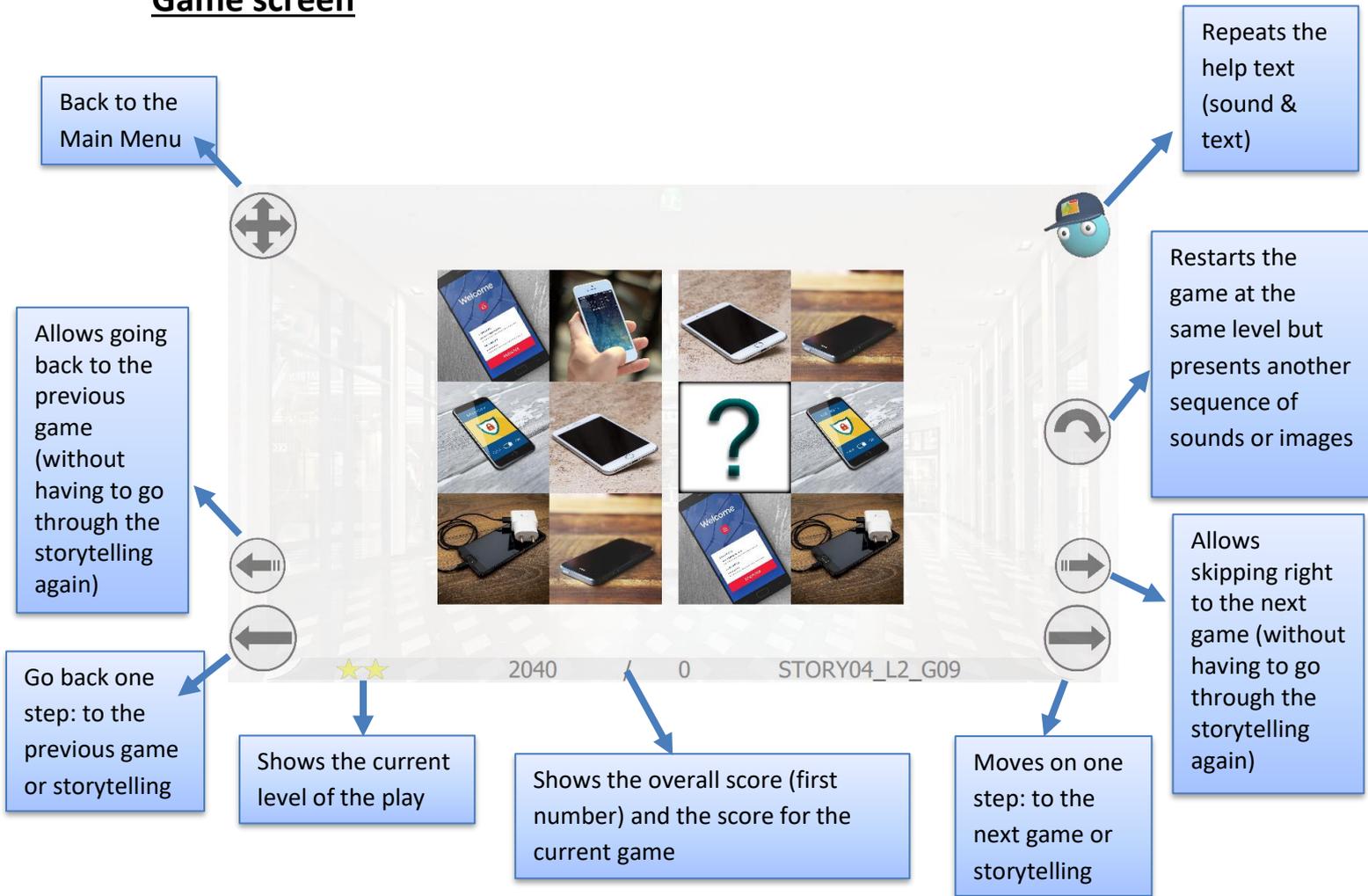
Story-Telling Screen

Story-telling screens (fill-ins) are guided by Robbie in thematic background images and explain the plot of the story line.



If there is no user interaction possible (while listening to an instruction, watching a game video etc.), the menu buttons are either invisible or almost invisible.

Game screen



✓ SCORING

- Whenever a user play AND finish a game or a fill-in, a user **get points**:
 - 10 points for level 1
 - 20 points for level 2
 - 30 points for level 3
- Whenever you **beat your own high score** for a single game, you **get extra points** (20 points for level 1, 50 points for level 2, 100 points for level 3). Beating your own high score means either solving a game faster or in less tries. When you beat your own high score for the current game, you get a special message. For fill-ins there is no extra high score, also not for some games where there is only one try and/or time is irrelevant or can't really be measured.