The next level: Digital game-based learning, literacy and language development

Dave Gatrell

Bristol Institute of Learning and Teaching, University of Bristol

Learning outcomes

By the end of this workshop, you'll be able to:

- explain how **games** can support literacy and language learning
- use **digital game-based tasks** in your **English language classroom**.

1. Good games, good learning

Share your answers to these questions:

- Do **you** play video games? If so, which ones?
- Have you used video games **in the classroom**? Or would you?

1. Good games, good learning

Think about these questions:

- How do video games help people **learn**?
- What **real-world skills** or **literacies** do they teach?
- What do **good games** and **good teaching** have in common?

1. Good games, good learning

How do video games support **language learning**?

1. Good games, good learning

Video games develop **communication skills** because people:

- communicate with each other in real time while playing **and** outside the game world
- do this using spoken **and** written English.

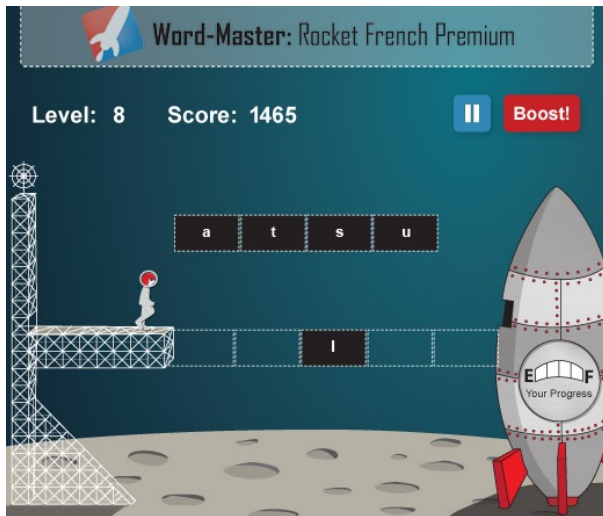# 1. Good games, good learning

Video games support **language development** because:

- progress within the game depends on people understanding language: **instructions, narrative and dialogue**
- meaning is **situated** in images, sounds, animation or action.
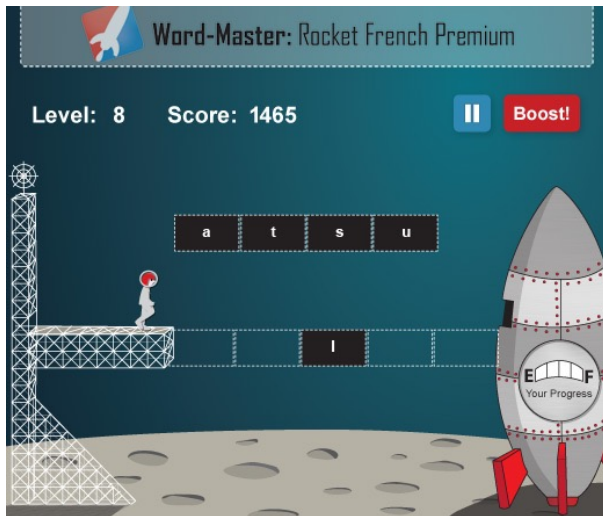
1. Good games, good learning

How about digital games designed **for** language learning?

1. Good games, good learning

Digital games designed **for** language learning are often **boring** and **not pedagogically effective** because:

- they have **low production values** and **no narrative or character development**
- they rely on **simple** reflexes and hand-to-eye co-ordination they test knowledge **of** language rather than how it is **used**.

1. Good games, good learning

The solution is games **in** language learning: **digital game-based learning.** This involves designing **tasks** which:

- are based on the types of **games learners enjoy playing**

- are **meaningful, engaging** and linked to the **real world**

- require learners to use **English** and **21st-century skills** – and in doing so **support the aims of your curriculum**.

2. Digital game-based learning

How can you **get started**?

2. Digital game-based learning

First, **find out which games your learners like playing** through communicative activities in the classroom:

- **Learner questionnaire**: learners interview each other about gaming
- **Game quiz**: set a quiz about fun facts in gaming
- **Game debate**: learners debate controversial issues in gaming
- **Video game reviews**: learners record a video review of their favourite game and post it to YouTube
- **Email to your niece or nephew**: learners write an email to your real or imaginary niece or nephew, giving advice on which games to buy or download.

2. Digital game-based learning

Next, **design tasks** based on the games learners enjoy playing to **support the aims of your curriculum**.
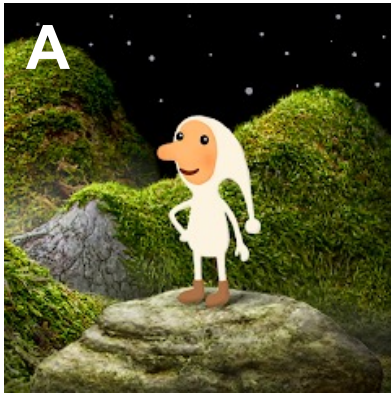
3. Example A: Point-and-click adventure

In **point-and-click adventure** games you:

- **take on the role of a protagonist** in an interactive quest
- **explore** and **interact** with different objects and people
- **solve problems** to move through the game.

3. Example A: Point-and-click adventure

Complete the first part of the story by choosing the best option.

One night, a **gnome / giant** looked out through his telescope to see a **round / tree-shaped** object heading towards his planet.

He decided to **run and hide / do something about it**.

3. Example A: Point-and-click adventure

Complete the first part of the story by choosing the best option.

One night, a **gnome** looked out through his telescope to see a **tree-shaped** object heading towards his planet.

He decided to **do something about it**.

3. Example A: Point-and-click adventure

Look at the screenshot from the first part of the planet:

- How many **objects** in the picture can you name?
- **Where** are they?
- How could you **use** them to get to the next part of the planet?

3. Example A: Point-and-click adventure

Look at the screenshot from the first part of the planet:

- How many **objects** in the picture can you name?
- **Where** are they?
- How could you **use** them to get to the next part of the planet?

6

5

4

3

2

pipe

3. Example A: Point-and-click adventure

Look at the screenshot from the first part of the planet:

- How many **objects** in the picture can you name?
- **Where** are they?
- How could you **use** them to get to the next part of the planet?

6

5

4

3

control box

pipe

3. Example A: Point-and-click adventure

Look at the screenshot from the first part of the planet:

- How many **objects** in the picture can you name?
- **Where** are they?
- How could you **use** them to get to the next part of the planet?

6

5

4

button

control box

pipe

3. Example A: Point-and-click adventure

Look at the screenshot from the first part of the planet:

- How many **objects** in the picture can you name?
- **Where** are they?
- How could you **use** them to get to the next part of the planet?

6

5

ski lift

button

control box

pipe

3. Example A: Point-and-click adventure

Look at the screenshot from the first part of the planet:

- How many **objects** in the picture can you name?
- **Where** are they?
- How could you **use** them to get to the next part of the planet?

6

loose cable

ski lift

button

control box

pipe

3. Example A: Point-and-click adventure

Look at the screenshot from the first part of the planet:

- How many **objects** in the picture can you name?
- **Where** are they?
- How could you **use** them to get to the next part of the planet?

signpost

loose cable

ski lift

button

control box

pipe

3. Example A: Point-and-click adventure

Go to Google Play or the App Store and download **Samorost 1**.

- Play through the introduction until you get to the first part.
- Use the different objects to try to get to the next part.
- Be ready to explain your progress to the group.

3. Example A: Point-and-click adventure

Read the **walkthrough** and check to see if you were right:

1. Tap on the man to make him smoke the **pipe** until he drops it on the ground.

2. Tap on the **loose cable** to repair the **ski lift**.

3. Use the **pipe** as a key in the **control box**. Press the red **button** to make the gnome ride up on the **ski lift**.

4. Tap on the **signpost** a few times until it's pointing left. Tap on the gnome to see if he can ski down the mountain.

5. Tap on the farmer to make him move out of the way. Then quickly tap on the gnome to send him down the mountain.

3. Example A: Point-and-click adventure

In this activity, learners develop different **skills**:

- **predicting**
- **creative problem-solving**
- fluency and accuracy in **writing and speaking**.

3. Example A: Point-and-click adventure

Learners also practise language:

- **vocabulary** for talking about the environment
- **narrative tenses** and the **imperative** verb form
- **prepositions** of place.

3. Example A: Point-and-click adventure

To adapt or extend the activity, you could:

- give learners the instructions with **deliberate mistakes** to find
- do the activity as a **running dictation**
- tell learners to play it at home and **write a walkthrough**.

3. Example A: Point-and-click adventure

How could you use **Samorost 1** with your learners?

3. Example A: Point-and-click adventure

Other point-and-click adventure games include:

- **Samorost 2** and **3**, **Botanicula** and **Machinarium**
- **The Silent Age**: a dystopian time travel thriller
- **Boxville**: a tale of speechless cans who draw to communicate.
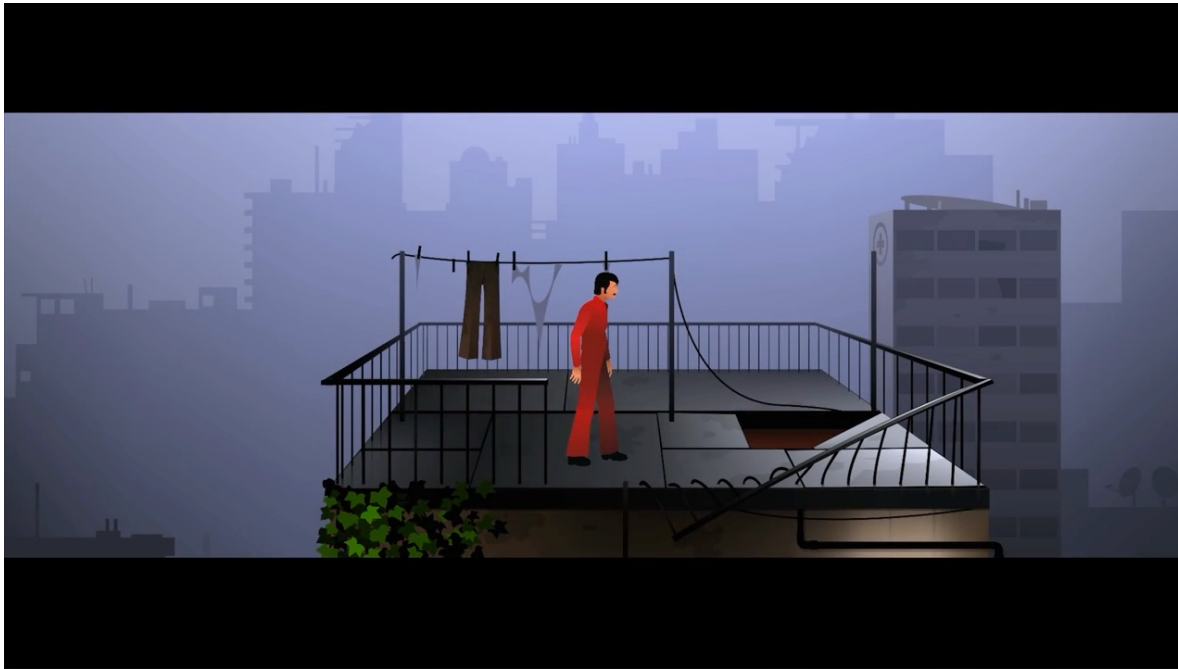
3. Example A: Point-and-click adventure

Other point-and-click adventure games include:

- **Samorost 2** and **3**, **Botanicula** and **Machinarium**
- **The Silent Age**: a dystopian time travel thriller
- **Boxville**: a tale of speechless cans who draw to communicate

4. Example B: Dressing up

In **dressing up** games you:

- use tools to **customise a character**
- decide on **physical appearance, accessories or clothing**
- **set your own game mechanics** and objectives as needed.

4. Example B: Dressing-up

Open **Monster Creator** on your computer. Try to:

- add parts of the monster's **body** and **face**
- **remove** parts of the monster you no longer need
- change the **weather** and **background**

4. Example B: Dressing-up

Listen and **create my monster** using the game. Then check to see if you were right.

4. Example B: Dressing-up

How close were you? Is anything different?

4. Example B: Dressing-up

Now create your own monster in **Monster Creator**. Be ready to describe it to another person.

4. Example B: Dressing-up

In this activity, learners develop different **skills**:

- **describing** appearance
- **listening** for specific information
- fluency and accuracy in **speaking.**

4. Example B: Dressing-up

Learners also practise language:

- **vocabulary** for parts of the body and clothing
- **adjectives** to describe physical appearance
- the **present simple and continuous** verb form.

4. Example B: Dressing-up

To adapt or extend the activity, you could:

- ask learners to **read and write** their description
- ask learners to **create a story** about their monster
- use their monsters to play **Top Trumps** or **Guess Who?**

4. Example B: Dressing-up

How could you use **dressing-up games** with your learners?

5. Example C: Interactive fiction

In **interactive fiction** games you:

- **read or listen to text** in order to make progress in the game
- get to **influence the narrative** by deciding what happens next
- can have **more than one possible ending**.

5. Example C: Interactive fiction

In **Spent**, you play an **unemployed single parent in the United States** with no home and only $1,000 in your bank account.

- Could you survive for one month in this scenario? If so, how?
- What expenses and other challenges might you face?

5. Example C: Interactive fiction

Play **Spent** individually. Which of your predictions were correct?
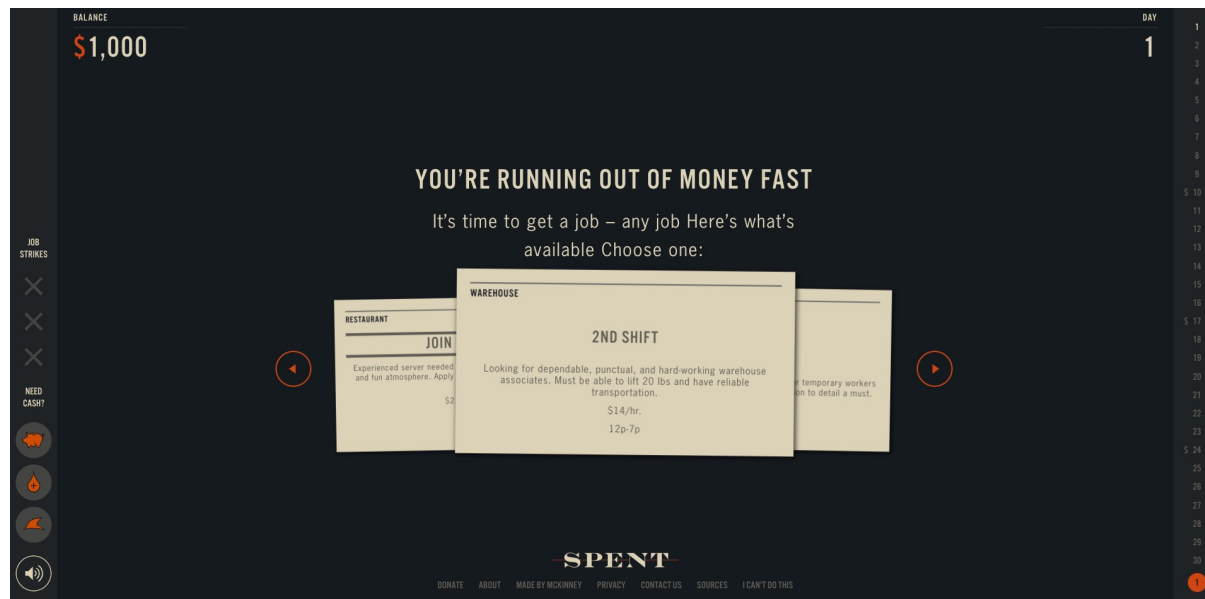
5. Example C: Interactive fiction

Now write reflections on some of the following questions:

1. Did you make it through the month? If not, how far did you get?
2. What job did you choose?
3. Which expenses and challenges did you face?
4. What were the most difficult choices you had to make?
5. How did you feel while playing the game?
6. Did any of the facts that appeared as you played surprise you?
7. Did you ever reach out to friends for help? Why/Why not?
8. What did you learn from playing this game?

5. Example C: Interactive fiction

In this activity, learners develop different **skills**:

- **predicting** and **speculating**
- **reading** for specific information
- **critical thinking**.

5. Example C: Interactive fiction

Learners also practise language:

- **vocabulary** for jobs, money and finance
- the **first** and **second conditional**
- **narrative tenses** and the **third conditional**.

5. Example C: Interactive fiction

To adapt or extend the activity, you could ask learners to:

- play the game **with a partner** or **in a small group**
- play the game **individually at home**
- re-tell the story **from the child's perspective.**

5. Example C: Interactive fiction

How could you use **Spent** with your learners?

5. Example C: Interactive fiction

Other interactive fiction games include:

- **Papers, Please**: a dystopian document inspection thriller
- **Her Story**: a crime fiction game with non-linear storytelling
- **Delete After Reading**: a text-based puzzle adventure
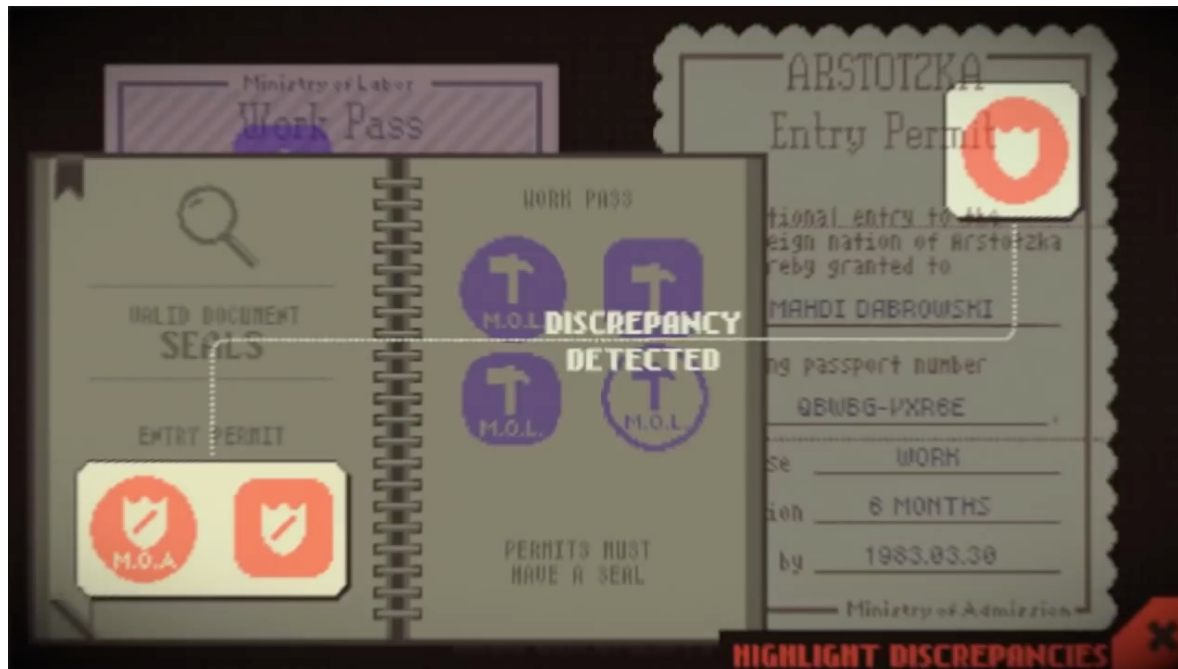
5. Example C: Interactive fiction

Other interactive fiction games include:

- **Papers, Please**: a dystopian document inspection thriller
- **Her Story**: a crime fiction game with non-linear storytelling
- **Delete After Reading**: a text-based puzzle adventure
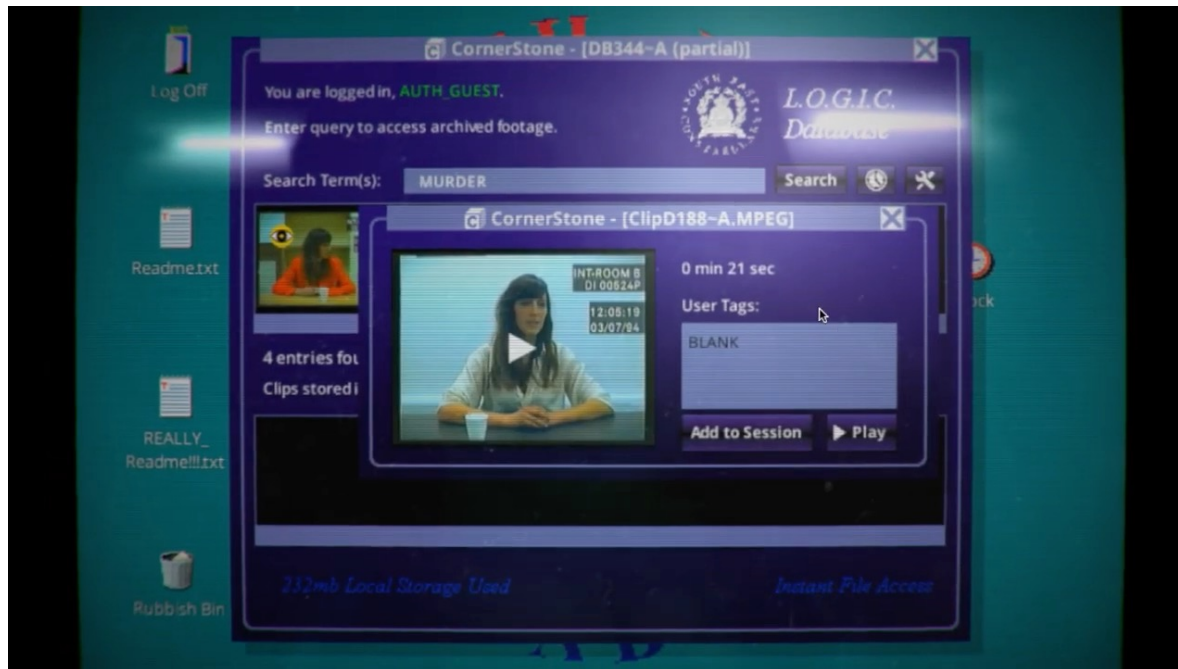
6. Example D: Simulation

In **simulation** games you:

- learn about **issues in the real world**, e.g. the environment
- **run a country** or **manage a company or organisation**
- **get detailed feedback** on each decision.

6. Example D: Simulation

In **Stop Disasters**, you defend a village or city against a natural disaster through safe construction, evacuation plans and education. Which disasters can you see? Where are they?

6. Example D: Simulation

Read about your mission. How many **people** do you have to protect? What do you have to **build**? What is your **budget**?

6. Example D: Simulation
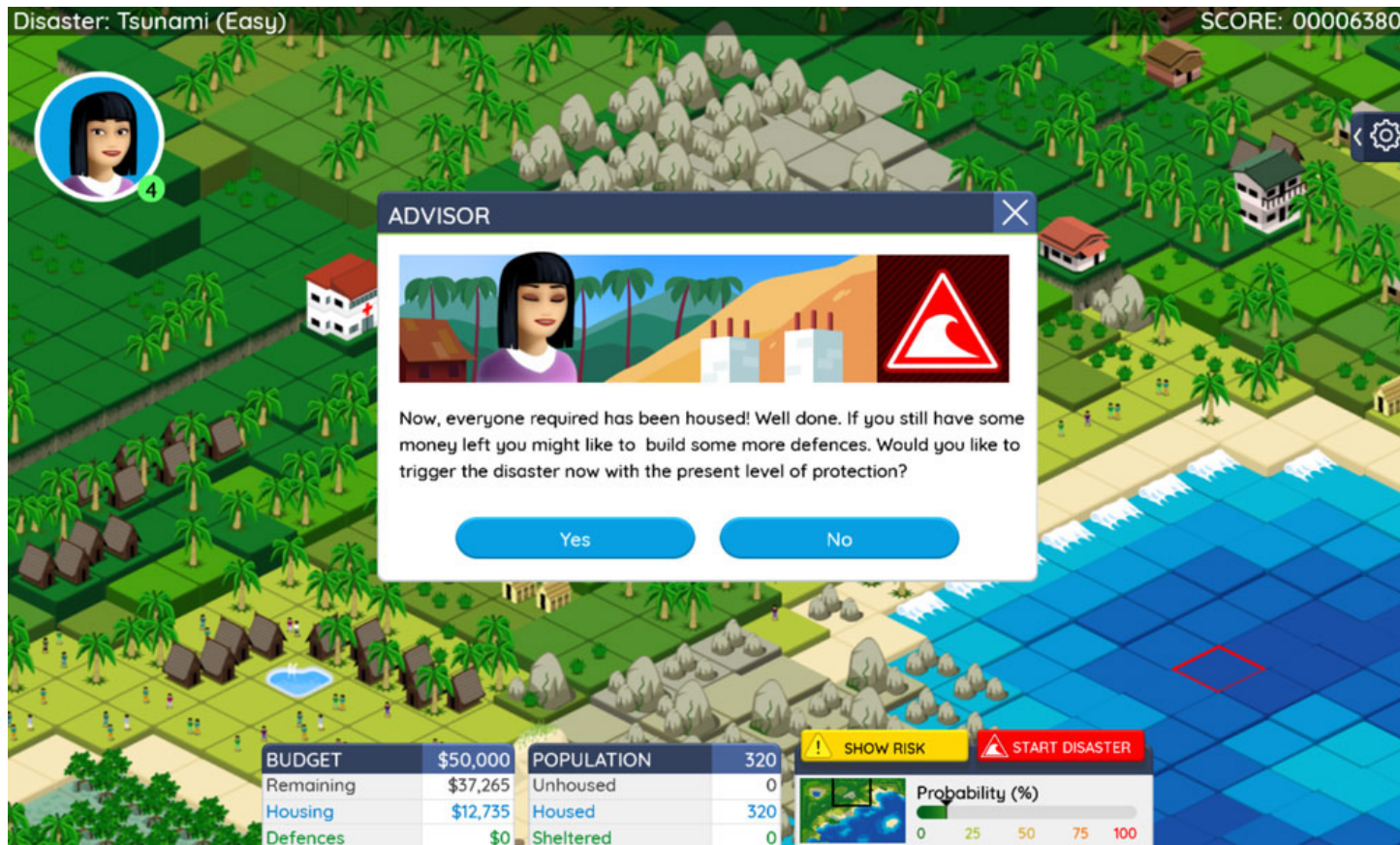
Develop squares of land by clearing them and **choosing different structures to build.**
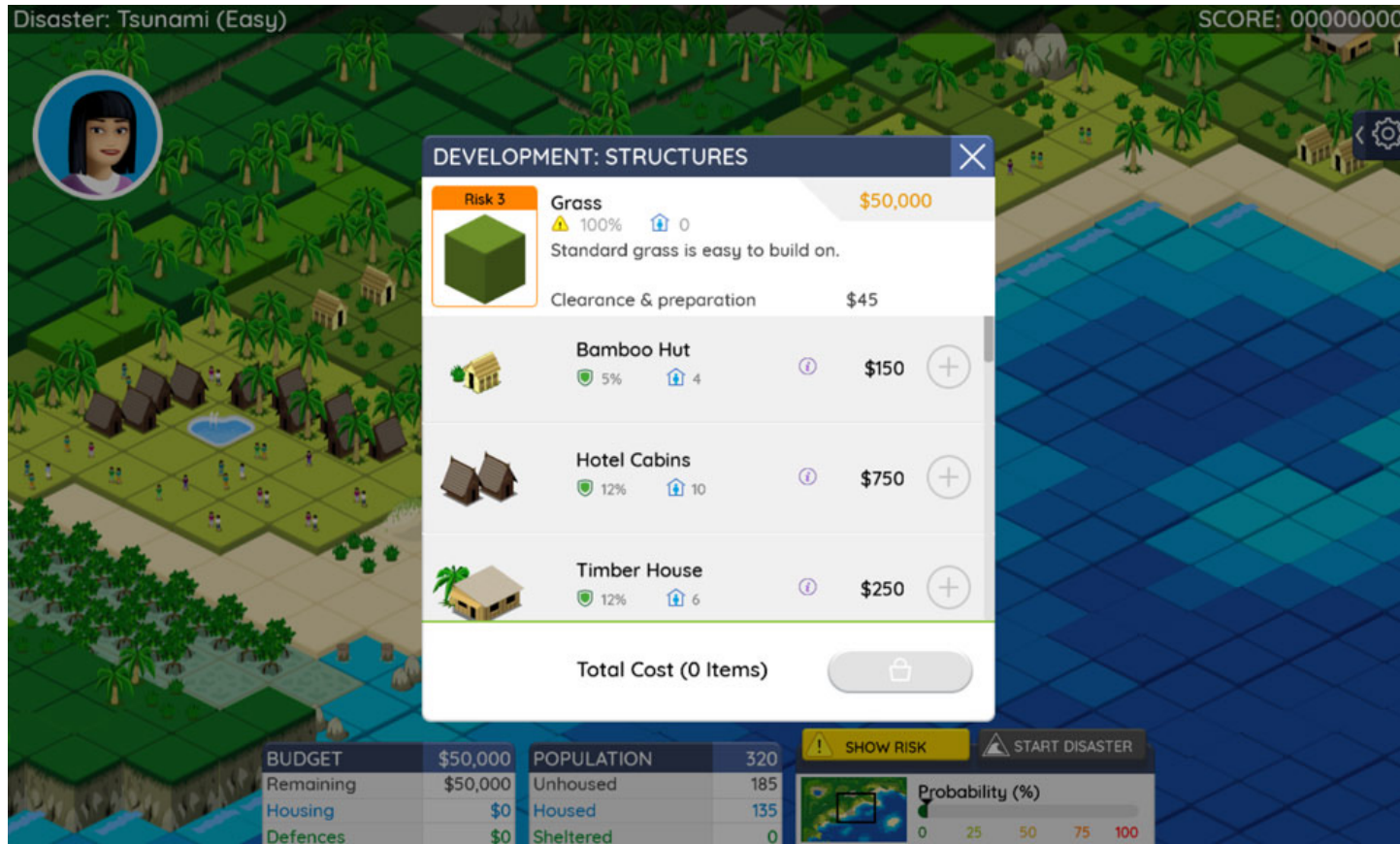
6. Example D: Simulation

Use your remaining budget to **build more defences**, **protect buildings** and **create an evacuation plan**.

6. Example D: Simulation

Once you feel you have the right level of protection, **trigger the disaster** or wait for it to happen.

6. Example D: Simulation

Read the **news report**. How do you feel about your role in the planning team?

6. Example D: Simulation

Read the **mission report**. Which decisions were successful? What could you have done differently?

6. Example D: Simulation

Open **Stop Disasters** and choose a scenario:

- read about your mission
- develop the land, build defences and create an action plan
- trigger the disaster, read the news report and mission report.

6. Example D: Simulation

Now write reflections on the following questions:

1. What was the impact of the disaster on the community?
2. How do you feel about your role in the planning team?
3. Which decisions were successful? What could you have done differently?

6. Example D: Simulation

In this activity, learners develop different **skills**:

- **reading** for specific information
- **negotiating** and **decision making**
- **justifying** or **reflecting** on decisions they made.

6. Example D: Simulation

Learners also practise **language**:

- **vocabulary** for towns, disasters and the environment
- the **first and second conditional**
- language of **cause and effect** and the **third conditional**.

6. Example D: Simulation

To adapt or extend the activity, you could ask learners to:

- play **individually at home** and write a reflection
- play **in groups** and **role-play** members of the planning team
- do **independent research** into the disaster they simulated.

6. Example D: Simulation

How could you use **Stop Disasters** with your learners?

6. Example D: Simulation

Other simulation games include:

- **Fake It To Make It**: create a fake news website
- **Mini Metro**: design a public transport system
- **Plague Inc: The Cure**: manage a global pandemic response

7. Over to you

Choose a game from one of these sites:

- **[Steam](#)**
- **[Games For Change](#)**
- **[AppUnwrapper](#)**

7. Over to you

Design a task based on the game. Think about these questions:

- What **skills** will learners develop?
- What **language** will learners practise?
- Will learners do the task **in class** or **at home**?
- Will learners do the task **individually** or **in pairs or groups**?

7. Over to you

Keep these questions in mind:

- How can I design tasks based on **games my learners enjoy**?
- How can I **integrate** these tasks into my **curriculum**?
- How can I **demonstrate** that digital games **support learning**?

Thanks for taking part!

Do you have any questions before we finish?

Feel free to email me on dave.gatrell@bristol.ac.uk, follow me on Twitter: @legaladvert or add me on LinkedIn.

Enjoy game-based learning!

Further reading and viewing

Gee, J. P. (2003). What video games have to teach us about learning and literacy. *Computers in entertainment (CIE)*, *1*(1), 20-20.

Mawer, K., Stanley, G., & Chalmers, J. (2011). Digital play.

Salen, K. (2013). [The Power of Game-Based Learning](#). Edutopia Big Thinkers Series.