LANGUAGE
Teaching and learning

Online Digital Games
and
Gamification

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**Introduction**

This booklet has been produced to support a number of workshops and presentations I will be giving on the subject in 2012. The contents are based on material in the book *Digital Play* (Delta Publishing) and the blog of the same name ([http://www.digitalplay.info/blog](http://www.digitalplay.info/blog)). If you want to know more about the book, you can read an interview with the authors of Digital Play in 'It's for Teachers'.

**Overview**

"Games are a more natural way to learn than traditional classrooms. Not only have humans been learning by playing games since the beginning of our species, but intelligent animals have as well." (Clark Aldrich, *Learning Online with Games, Simulations and Virtual Worlds*, 2009)

This booklet aims to give language educators the opportunity to investigate the potential of gamification and the use of online games for language learning and teaching.

**Tasks**

Throughout the booklet, there are a number of tasks for you to do. Consider doing the tasks and reflecting upon them by writing a blog post. If you don't have a blog, you can set one up easily at [http://www.blogger.com](http://www.blogger.com).

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**Front cover images**

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[http://www.deltapublishing.co.uk](http://www.deltapublishing.co.uk)
Part 1 - Introduction to online games

“what makes computer games fun can offer an interesting new light on what will motivate a student to learn.” Armando Baltra, Professor in the department of Early Childhood Education, California State University

In the first part of this booklet, you'll get some ideas of how to begin making use of online computer games* in the classroom and become familiar with different genres of games and how they might lend themselves to being used with learners.

http://www.flickr.com/photos/okaysamurai/1269826969/

* In this booklet, I use the terms computer games, video games, digital games to mean the same thing – i.e. any game played on a games console (such as the Microsoft Xbox360, PlayStation3, Nintendo Wii, etc.); desktop or laptop computer; or handheld/mobile device (iPod, mobile phone, tablet, etc).

How to get started
Are you a gamer? Do your learners play computer games? My guess is that most of you will answer 'No' to the first question above, and 'Yes' to the second one. There seems to be an experience gap between teachers and learners when it comes to playing video games, and many teachers don't even ask their students about the games they play, even though in many cases the time they spend playing them may exceed the time they spend on other free time activities. The point of this booklet is to get you to think about changing this, and if you find your learners do spend lots of their free time playing computer games, then you will find a lot of activities to help you in the classroom.

The best way to get started is to a) talk to your learners about the games they play and b) play some games yourself. Although it's not strictly necessary for you to play computer games in order to use them in the classroom, I believe there is nothing that can take the place of real experience. Playing a computer game or two, especially if you aren't normally a gamer, will give you a better idea of how your learners feel when they play games.

Game genres
There are many types of computer game genres (see http://en.wikipedia.org/wiki/Video_game_genres) but not all of them are suitable for encouraging language skills practice. The games we are going to concentrate on here are all short online digital games built around an information gap.

They include:-

- **Point-and-click** (http://en.wikipedia.org/wiki/Point-and-click_adventure_game#Point-and-click_adventure). These games are often adventure games and involve the gamer clicking on different objects, and often combining these objects in order to progress in the game.

- **Escape the room** (http://en.wikipedia.org/wiki/Escape_the_room). A sub-genre of the point-and-click game that requires the gamer to solve puzzles and 'escape the room'.

Tasks

a) Next time you can, question your learners about the video games they play and ask them if they think they have learned any English (or other language) from playing them.

b) Play one or two of the games mentioned in this booklet and think about how they could be used in the classroom with learners. Here are a couple to get you started:

- Quest for the rest http://amanita-design.net/thequestfortherest/
  solution: http://blog.sillica.com/2008/01/04/quest-for-the-rest-walkthrough/

- The Crimson Room http://www.fasco-csc.com/works/crimson/crimson_e.php
  http://www.b-sting.nl/crimsonroom/solve.html

If you have more time
Watch this short video of James Paul Gee talking about 'Video Games Learning and Literacy' http://www.youtube.com/watch?v=LNfPdaKYOPI
Part 2 - Games to encourage speaking

“All I have to do is mention the name of a game in class and I get tremendous respect from my students.” A Teacher, quoted in ‘Don’t bother me mom – I’m learning’ by Marc Prensky

There are so many ways to encourage speaking with computer games. You don't even have to have access to any computer games in the classroom to do so.

Often, just encouraging the learners to talk about their favourite computer games is enough to start a lively discussion in class. The reason for this, in my experience, is that few teachers ever take an interest in computer games (because it is usually outside the teachers area of experience) that when you do, the learners often react very positively.

http://www.flickr.com/photos/the_puppeteer/6464822197

The Connected classroom

If you have one computer in your classroom, connected to the internet and perhaps displaying the image through a projector to a large screen or an interactive whiteboard, then your classroom is 'connected'.

With only one machine available, the challenge here is for all the learners to be involved in what's going on – and for the teacher to avoid being the 'sage on the stage'.

Here are some ideas how to exploit this environment for speaking:


Finding good games

How can you find good games to use with a class? The best way of course, is for a game to be recommended – this could be from a student, another teacher, on the Digital Play blog (http://www.digitalplay.info/blog).

However, if you want to go looking for your own game, there are a number of websites you can use that are useful and which rate games. Of course, the review information can also be used in class, as reading material, or prompts for discussion, etc.


Task

As before, try out one of the games above and think about how you could use it with your own students.
Part 3 - Games to practise listening

“Like all games, computer and video games entertain while promoting social development, and playing and talking about games is an important part of young people’s lives.” Dr. Caroline Pelletier, lecturer in ICT in Education.

One of the easiest ways to make use of online games, especially if you’re a busy teacher is to choose a game with an information gap or puzzles, take the solution (or walkthrough) and use this as the basis of a ‘live listening’ (i.e. the learners listen to the teacher). The advantage of doing this, apart from the lack of preparation time, is that you can adapt your language to the level of the learners, making the listening more or less challenging.

http://farm4.staticflickr.com/3572/3458856098_4740af6929_m.jpg

Read on for other strategies for finding and using walkthroughs, and before that, some considerations when using games in the computer room with learners, along with a selection of games & proposed activities to try out.

The Computer room

Managing the learners in the computer room is worth considering. How you arrange the room and the learners will depend on the activity in hand. However, here are some suggestions which make the most of the space and computer equipment.

When there is an activity where the focus is on the learners, with them able to talk together in pairs or small groups. The teacher’s role here is to monitor, and you will be easily able to see how much the learners understand if the activity is a listening. The picture (by Mike Coghlan) on the left reflects this set-up.

There are other possible configurations of the computer room space which you would want to consider if, for example, you were doing a relay reading activity, with the learners running between the solution that has been posted on a wall and their partner playing the computer game. Here are some listening activities with games for you to try:-

**Escape the Plush Room**, Primary. Questions and short answers.
**Stage 7**, Lower Intermediate. Speech from the game.
**Pirates of the Undead Sea**, Upper Intermediate. Live listening

**USING ‘WALKTHROUGHS’**

The most important thing when using online games is to ensure the learners have a task that practises language. Without this, they’d just be playing the game for fun. Fortunately for the language teacher, when the fun of a good game comes out of solving puzzles, finding clues and completing different levels, you’ll be able to find help in the form of a walkthrough.

A walkthrough is a step-by-step guide to completing a game, and can be used by a teacher both as a shortcut to the game and the basis for a language task. They are usually collectively written by gamers and published on games sites in the comments next to a review or announcement of a new game. If a game is particularly popular, it might even have its own fan sites, and the walkthroughs will be published there, often illustrated with screenshots.

Let’s look at an excerpt from a walkthrough for an online game called the Viridian Room and examine how a teacher could exploit this. The game's genre is escape the room and the objective is to find a way out. The player does this by discovering clues and making connections between objects found in the room.

When you look at the walkthrough, you’ll see it is a text rich in vocabulary and with a variety of different verbs and directions for the player to follow.
How can a teacher best use this information? Well, the easiest way to exploit a text such as this, is as a live listening. This requires no preparation, and a teacher can adapt the language to the level of the learners he or she is teaching. One of the interesting things about this too is that you can easily see if the learners understand you by looking at what they do on the computer screen.

Another effective task is to prepare the walkthrough text as a reading comprehension. Again, no questions are required – if the learners understand the instructions, they will complete the tasks in the game. In fact, although many of these games are long and you will probably find you only have time (in a 20 minutes computer room session, for example) to finish one level of a game, you may find your learners asking to take home the instructions to be able to finish the game on their own. Be sure to encourage this as it means they will be reading lots in English without even thinking of it as homework!

**FINDING WALKTHROUGHS**

Generally speaking, if a game is good (i.e. popular and engaging), then there’ll be a walkthrough for the game. You should be able to find it by searching Google with ‘the name of the game’ + ‘walkthrough’. It may be that you have to look at a couple of the entries before you find one that you can use, but it’s worth it.

The next thing you have to do is to decide how to adapt the walkthrough for class. You may want to play the game with the walkthrough to see if the game is suitable, and to change any of the terms or expressions (for example – ‘click on the pen’ may become ‘pick up the pen on the table’).

Then you should be ready to go.

**Task**

Choose one of the games mentioned earlier, look at the walkthrough and try to adapt it so it will work with your own students. Try it out the next time you have an opportunity.
Part 4 - Games for reading & writing

"Kids will read at a level over their head if it's in an area where they've really being turned on by games." James Paul Gee, author of 'What video games have to teach us about learning and literacy'

There is a lot of reading in many computer games. This includes instructions how to play the game, the objectives, in-game text from characters or game help, and (as we looked at beforehand) the walkthrough. The trick is how best to adapt the texts for class.

There are also many ways a game can lead to writing practice. The obvious choice is when the game includes a story, but there are other ways too, which we will be looking at.

Games & Homework

You may not have a connected classroom or a computer room to use with your students. Or you may prefer to ask the learners to play the games at home and do the pre-game and post-game activities in the classroom to maximise language practice. These are good reasons for setting the game play for homework, but you have to think very carefully about the task if you want the learners to play the games at home.

The first thing to be sure of is that the game is a good one. If this is not the case, the learners won't be motivated to play it in their own time. We have already seen how walkthroughs can be used to provide solutions and how a teacher can use them for listening. Another way of utilising these texts is as a reading comprehension.

In class, a walkthrough can be set as a relay reading or a jumbled up walkthrough text can be given to the learners. When setting the text for homework, if the game is difficult that it requires a solution or the learners will never do it, then providing them with a written walkthrough can be enough. You'll be surprised how readily learners will read pages and pages in English in order to finish a game they are really into.

In fact this was the 'aha!' moment for me. I had finished playing the first level of the game MOTAS (http://www.albartus.com/motas) with a class of thirteen year-olds and we'd run out of time. Some of the learners asked me for the solution to the rest of the game as they liked it so much, and so I photocopied this for them and gave them around 12 pages in English! The next class they came back and many of them had completed the whole game using the photocopies I'd given them, without even thinking it was homework.

The Information Gap

Using computer games to practice language can offer great benefits, in particular when it comes to skills work. Many types of games have information gaps built into them that can be easily exploited for live listening activities, grammar practice and intensive reading. Games can also be used to promote extensive reading, and make great subjects for writing practice. The key to using computer games effectively for language practice is in the choice of game and design of a task. many of these tasks

Identifying the best task for a game takes time. Things to take into account include making sure you don't kill the fun factor, and adding an appropriate element of language/skills practice ensures that you're not wasting valuable learning time.

Here are some different games for you to consider:

Enercities http://www.enercities.eu
Tanooky Tracks http://www.coolbuddy.com/games/game.asp?gid=2950
MP for a Week http://www.rollypoint.com/games/26445/a-zombie-story.html

Task

Try one of the games above. How could you adapt it for one of your classes. Later, If you want to see some ideas, search for the game on http://www.digitalplay.info/blog to see how we have adapted them.
Part 5 - Games and grammar & vocabulary

“A game is a series of interesting and important decisions, leading to a satisfactory conclusion.” Bruce Shelley, Head Designer, Ensemble Studios

Apart from skills work, computer games can be easily adapted to practise grammar and vocabulary. As with the examples seen beforehand, a teacher needs to ask when the best time to focus on the language is. Depending on the class, and the game / task, this could be before playing, during the game, or afterwards, once the game has been played.

http://farm4.staticflickr.com/3205/3005591006_8b62706d43_m.jpg

One way of doing this is to play the game and look out for moments during gameplay when you think it would be appropriate to interrupt the learners and focus on form. Another way of identifying the task and when to do it can come from looking at the walkthrough. You might spot a recurring theme, such as an opportunity to practise a certain structure, or the game may feature a particular vocabulary set.

Critical thinking

Critical thinking includes a complex combination of skills. Critical thinkers are active, not passive. They ask questions and analyze and apply tactics and strategies to uncover meaning and approach understanding. They approach texts with skepticism and do not accept them at face value.

Here are some ways of adapting walkthroughs which can promote critical thinking as well as focusing on language:

**Gap-Fill**

Omit target language that the student has to complete while progressing through the game. For lower levels it is better for the teacher to select language items to be omitted that are familiar. For higher levels the student may be able to guess meaning from the context of the game.

Example: (from the MOTAS walkthrough [www.albartus.com/motas/](http://www.albartus.com/motas/))

Level 1: Look under the pillow to find the _1_. and take the _2_. from the wall Use the _1._ to open the _3_. You will find a _4_. in the _5_.

Handing out the walkthrough before playing the game and telling the learners that the missing words are locker, screwdriver, key, box, poster will encourage them to start thinking about what they know and what they don’t know, and the learners will hopefully make informed guesses about lexis they don’t know.

**Jigsaw Reading**

This can be done with any puzzle game by adapting the walkthrough text. Each group has different information from a different part of the text and they must ask the other student questions about the part of the text they need. In this way students work collectively to gain understanding and complete the task. With Advanced learners, if you add mistakes to one of the texts, and tell the learners that you’ve done this, then they will read more critically and look for the most logical of the two choices.

**Information Gap**

The information gap activity is ideal for getting students to work together to solve a puzzle game - it works best if they cannot show what they have read to their partner.

[Samarost 2](http://www.samarost2.net/) is another puzzle game that has beautiful graphics and which is engaging and can be used with a variety of tasks to encourage learners to produce language.

Example question card: (from the Samarost 2 game walkthrough):
Lateral thinking is solving problems through an indirect and creative approach, using reasoning that is not immediately obvious and involving ideas that may not be obtainable by using only traditional step-by-step logic (see http://en.wikipedia.org/wiki/Lateral_thinking for more).

Many puzzle games require learners to think laterally, especially when they involve objects that require to be used together.

Here's an example taken from the book Digital Play that uses the game, Heatherdale

The aim of the game: The learners predict what to do with a list of pairs of game objects, check their answers by playing the game and then write down the answers using the passive voice.

Prepare to play: Choose an adventure game and start playing it. As you play, make a note of what you do with the objects that appear in the game (or use the walkthrough to save time) and produce a list similar to the example below. Make a copy of this list for each learner. You will also need to use online dictionaries.

Play: Hand out the list of objects (above) and tell the learners they are to guess how they are used together in the game. Ask the learners to talk together in groups of three and to use the online dictionaries to find out the meaning of the words they do not understand. After fifteen minutes, stop them and ask them to tell you what they think the relationship is between each pair of objects in the game: e.g. I think you use the hairpin to open the shed, etc. They then play the game together. The game should be easier to play because they know which objects they need to use together, but if they get stuck, encourage them to read the walkthrough to find out what to do next. Finally, once they have played the game (or part of the game if it's long), ask them to look again at the pairs of words and to write about them. Encourage the use of the passive voice here: e.g. The hairpin is used to open the shed, etc.

Play on: The learners can continue playing the game and finish off writing passive sentences about the objects.

Task
Choose one of the games from earlier in the booklet, find the walkthrough and adapt it for a class.
Part 6 Gamification

What is gamification and how can it be used in language teaching?

Gamification is the use of game design techniques to solve problems and engage audiences. ([Wikipedia](http://en.wikipedia.org/wiki/Gamification)).

In other words, this buzz word refers to adding a game layer to the real world, and it is becoming an attractive idea for many educators. The basic premise is to make something we do or want to do more engaging by turning it into a game.

If you have ever observed anyone playing a game and being so absorbed in it they lose all track of time, then you'll see the attraction of doing this. Is it possible to motivate our learners to be as engaged in learning a language? We shall look at some possibilities here.

http://farm3.staticflickr.com/2336/2165818889_2d1708c5f0_m.jpg

**Incentive games**

Two examples of incentive games are **Chorewars** ([http://www.chorewars.com](http://www.chorewars.com)) and **Epic Win** (see [http://www.rexbox.co.uk/epicwin](http://www.rexbox.co.uk/epicwin)). The latter is mobile-based; the former accessed by a website. Rather than games, they are both fun reward systems. They both are designed to turn the chores of our daily life (housework, for example) into an adventure game. They do this by giving experience points and adding monsters and turning the chores into quests. Although not designed for education, Chorewars can be easily adapted for the classroom, and is particularly suitable for young teenagers (see [http://www.digitalplay.info/blog/2011/03/28/gamify-your-classroom-with-chore-wars](http://www.digitalplay.info/blog/2011/03/28/gamify-your-classroom-with-chore-wars)).

**Alternate Reality Games**

The **Alternate Reality Game** (usually referred to as an ARG), is an ‘interactive narrative that uses the real world as a platform’ ([Wikipedia](http://en.wikipedia.org/wiki/Alternate_reality_game)). An ARG can take many different forms. In ARGs such as **World without Oil**, participants imagined a future where there was a severe energy crisis and where they had to live their lives without oil. Those taking part spent much of their time imagining what their lives would be like, and wrote blog posts and posted videos as if they were living through this.

This game was the brainchild of Jane McGonigal, the leading light when it comes to ARGs. In her new book ‘**Reality is Broken**’, she proposes integrating games more closely into our everyday lives in order to make routine or boring work more fun, and to harness their power in order to instigate real societal change worldwide.

So far, there hasn’t been a lot of ARGs for language learning, but a European union project called **ARGuing** successfully piloted a game called **Tower of Babel**. The learners were involved in 15 quests, which required them to ‘search the Internet for information, view videos, create their own content, add posts in forums’ and most of these were collaborative tasks.

**Mobile gamification**

The mobile apps such as **Foursquare** and **SCVNGR** are social networks for mobiles that are based on location, and which have elements of games embedded. People using these apps check into a place to gain points, collect badges or (in the case of Foursquare) compete to become the mayor of a particular place. They also share tips and recommendations about the places, which mean they are very interesting for tourists. It’s still unclear how these apps can be used for language learning, although people are now writing comments and recommendations in English using them.

Seth Priebatsch, the CEO of **SCVNGR**, one of these new mobile apps, recently gave his take on the future of gamification and how it could be used to improve our educational system. In his keynote presentation to the SXSW (South by Southwest) festival of film, music and technology in the US, he said that our education system was ‘a badly designed game’ in which students competed for grades and which results in many students being demotivated if they are told they have failed a test. In contrast to this, a good game never makes you feel like you’ve failed – you just make progress more slowly. His idea was to start students with zero points and have them build a high score as they move through a subject.
If you think this is unrealistic, you may be interested in knowing that this the idea of making school curriculum more like a game has already been adopted by one school in New York. The students of Quest to Learn obtain experience points and level up instead of passing exams. And there are special ‘easter eggs’ hidden extra tasks that have to be discovered and done at home – rather than making this homework a chore, it turns it into a prize for those students who find it, and they earn extra experience points when they do.

**Augmented Reality**

Our last element of gamification is another type of software found on handheld devices. Augmented reality (AR) works by adding a layer of ‘computer generated sensory input to the real world’ (Wikipedia), which means you can receive extra information about a particular place. AR is also being used to turn the ordinary world into a game, as in the picture below.

Gamification of education, therefore, has at its root the idea that learning needs to be made fun again, and that students will perform better if they are encouraged to ‘play’ rather than to ‘work’. It’s a revolutionary idea that could benefit many of our schools and learners if adopted, but for many of us this currently seems as unlikely as the dragon in the picture above. However, this could well change in the near future...

**What do you think?**

▲ Do you think language learning classroom would benefit from a little ‘gamification’?
▲ Should we change our assessment of students from ‘pass’ and ‘fail’ to a system where students gain experience points?
▲ Are any of your students using any of the apps (Foursquare & SCVNGR) mentioned above? Do you have any ideas how they could be used for language learning?

**Task**

Think about the questions above and write a blog post with your answers & reflections.

**Gamification and Language Teaching**

Gamification in language teaching can involve many things, but usually involve the introduction of a points and rewards system into the language learning context to motivate learners.

Let’s look now in more detail at one of these systems aimed at young learners: **Class Dojo**
Reward and Punishment for Young Learners & Teenagers

Class Dojo (http://www.classdojo.com) is a realtime behaviour management system for teachers who have an internet-enabled computer and a projector (connected classroom) or IWB. You start by creating an account and setting up a class by typing in the names of your students. Avatars for each student are automatically generated during this process.

In class, you select a student and award a positive point for behaviour such as creativity, hard work, presentation, etc. You can also award negative points for bad behaviour, when a student doesn't bring homework or if he/she arrives late.
Think of it like a digital star chart with added extras. The points can be awarded individually or, by selecting all students, you can give everyone a point. On the board, you can show only the positive or only the negative points the students get.

You can also undo if you make a mistake or change your mind, and it's possible to reset all points to zero too.

So far so good, but what makes Class Dojo really interesting is that once the class has ended, the programme displays a pie chart with the results of all student behaviour.

If you use Class Dojo every class, then you can select periods of time (days of the week, terms, etc) to display records of. You can also choose individual students and display their progress.
These are report cards that you can print off (on paper or PDF) for your own records or to give to the students or parents. You can also add and change the behaviour categories when you select 'edit class'. This way you can tailor make the programme to suit the behaviour you want to reward or stop in your own class.

All in all, Class Dojo looks like it is a great way of gamifying the behaviour of your class and could work well for many teachers. A great find!

Class Dojo section Originally published here: http://www.digitalplay.info/blog/2011/11/04/reward-or-punishment-gamification-with-class-dojo/

We've come to the last part of this booklet. If you like what you've read, remember that there are lots more ideas and information in the book Digital Play. Hope you have fun!

Graham Stanley, January 2012  
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