Educational Use of Video Games in the ESL Classroom

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Abstract

With the introduction of the iPad in the classroom many new possibilities on how to actively engage students while they learn English have emerged. Games have always been highly motivating for students and now, with the accessibility of video games on the iPad, teachers have another opportunity to keep their students focused while learning at the same time. However, there are a vast number of games available and it may be difficult to decide which games are suitable. Some with educational value may not be motivating or engaging for the students. Teachers need to find the right balance of entertainment and education. As well, they need to know how to effectively introduce the game so their students can optimise their learning experience. This article reviews several iPad video games in terms of practicality, interest and educational value. It then addresses some of the issues teachers may experience and possible ways to overcome these. It also introduces some activities that could be used to support the learning objectives. Finally, the results of a survey conducted with students before and after using one of the games to determine their effectiveness in learning English and engaging the students is discussed.

Introduction

Teachers have always had the challenge of keeping their students engaged in the classroom; however, since mobile technology has been introduced and become part of our everyday lives, the challenge of keeping students focused on the learning task has dramatically increased. Facebook, Blackberry Messenger, Subway Surfer and Angry Birds have now been added to the many distractions a 21st century student faces. If given the choice between an academic reading task and checking their friend's Facebook status, we know that many of our students would choose the latter.

Adventure Video Games and Unmotivated Readers

While teaching a pre-Bachelor English Foundation class with 22 Emirati women ranging in age from 18 to 23 and with linguistic abilities from A2+ to B1 in the Common European Framework (CEFR), I found myself struggling to get them to read. Even when it was a topic they enjoyed, for example a love story, more than half of them just were not motivated to read. If a reading task was given for homework, I had no chance of having them complete it. If I stood over them while they read, they would read the same line over and over again, start doodling, chatting, or try to sneak a peak at their mobile phone. There was no engagement, motivation or desire to read the text in front of them and they typically just wanted to watch the movie version. Thankfully, not all my classes were this unmotivated, but in general the Emirati students I taught didn't read outside of the classroom in either English or Arabic.

This is when I started looking for something other than the traditional articles or stories for class assignments. At the time, my classes were being conducted in computer labs, so each student had access to a desktop computer in every class. From experience, I knew they loved working on the computer and really enjoyed games, so I began a search for something more interactive that would motivate them to try and understand the sentences in front of them. I decided to look for a video game; however, I found that there were a vast number of games available and many of them were not suitable. My search proved to be more difficult than I thought. The game couldn't be too childish, it couldn't include any adult themes and it had to be free. After countless hours of searching, I finally found a perfect fit with the Nancy Drew adventure games published by Herinteractive (www.herinteractive.com/

index.php). The Nancy Drew games were a great match for my students. They were linguistically challenging, but not overly so, and they were family-friendly without being childish. I chose the game, Resorting to Danger to introduce to my students. This game is not free, but the students can play one section of the game at the above web link.

In this mini-adventure game, the students become Nancy Drew and help the resort manager solve a mystery. There have been bombs at the spa and they need to find out who is behind these. Throughout the game, they need to find items and connect them or complete specific tasks by clicking on an object and then clicking on a written command. For example, they had to click on a drawer and then click on pull. They also needed to read and choose the right response for the manager, employee or customer, as seen in the screen shot to the right. This gave the students authentic language exposure, which they needed to understand in order to continue in the game. The more accurate their understanding, the higher their score and the faster they could complete the game.

The moment I informed my students that we were going to play a video game they were engaged. However, before I allowed them to play the game, I knew that they needed to learn the essential vocabulary so they could be successful. I didn't want them to feel discouraged and unwilling to finish the game because of the language. I introduced vocabulary through various matching and definition activities and then handed out a worksheet that had all the images of the words on it and had them fill in the blank under each image with the correct word. This sheet then became their 'cheat sheet', which they could refer to while playing the game.

After preparing the students, we started the game. It was the first time after two years of teaching in the Foundations Programme that the students didn't want to take a break. Not one of the 22 students turned away from their computers for their 10-minute break. I was shocked that they were reading the instructions and trying to understand them. They

were still playing the game even after the class time was over and I had left the room. Some of them enjoyed the game so much that they bought the full version. Others went on to play all the Nancy Drew mini-games. Overall, it was a success. Very few of these students had any desire to read, but they were willing to read in an adventure game where they knew that understanding what they were reading would get them to the next stage of the game. They even asked for help and clarification for the parts they didn't understand. I had finally found a way to engage my students in an authentic reading activity.

In April 2012, all post-secondary pre-Bachelor Programmes in the United Arab Emirates implemented

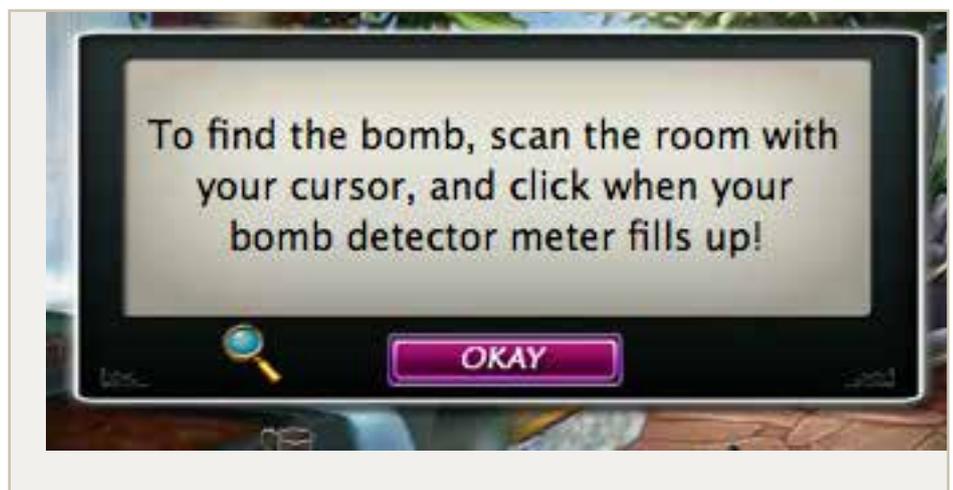*Image 1 Screenshot taken from Nancy Drew Resorting to Danger.*

Image 2   Screenshot taken from Nancy Drew Resorting to Danger.

a one-to-one mobile learning environment through the use of the iPad. I was no longer able to use the Nancy Drew games since they are flash-based and, therefore, not compatible with the iPad, so my quest for highly interactive entertaining adventure games began again. Thankfully, I stumbled on a company called Big Fish that publishes a new adventure game every day. These games are, for the most part, family-friendly and appropriate for our students. Although the initial download does take time, one advantage is that once you have the game on your mobile device, you no longer need the Internet to play it, which is not the case with the free section of the Nancy Drew games. The Big Fish games can be played anytime, anywhere, which is conducive to our mobile learning objectives.

What is an adventure video game?

It is important to clarify the definition of an adventure video game. Most people hear the words "video game" and they instantly think, as I once did, of car races and violent shoot-outs. However, Marek Bronstring (2012) states that adventure games can be "thoughtful, engaging and intelligent and provide some mental challenge" (para. 2). They also "focus on puzzle solving within a narrative framework, generally with few or no action elements."

(para. 4). Each Big Fish adventure game typically opens with a cut scene, which gives the player the background knowledge to the storyline. It is visually appealing and it usually has both audio and text which help engage even the lower level student right from the start. These adventure games can be described as an interactive movie where you choose where to go and you need to solve puzzles along the way to continue with the story. The puzzles can vary from game to game. In Beauty and the Beast Mystery Legends, you need to complete hidden object scenes in order to obtain a vital tool, maybe a key for a locked door or a bone for the dog that won't let you pass. In this type of puzzle, the player sees a list of words at the bottom of the screen and they need to find the objects in the picture, as you can see in the example image. In Grim Tales: The Legacy, the player is additionally helped by being able to see the shape of the object when they tap on the word. There is also a hint button in all the games, which the players can use if they are stuck. However, they need to be careful when using this since it takes time for the hint to recharge. They also need to be careful about randomly tapping the screen. In certain games, if you tap too much, a dark cloud will cover the screen and slow your progress.

Image 3 Screenshot taken from Beauty and the Beast Mystery Legends

Why are adventure video games beneficial for our students?

One obvious advantage in having students play these games is the fact that they will be exposed to English text and, therefore, increasing their reading and vocabulary skills. This was proven in a recent study conducted by Chen and Yang (2013) at National Taiwan Normal University. They asked 22 students to play a commercial adventure video game. One group took notes while the other simply played the game. After they finished, they were given a vocabulary test. Both groups learned new words due to playing the game (Chen and Yang, 2013). This indicates that the experience of play alone leads to language acquisition. Szynalski (n.d.) has also found that playing these types of games exposes the student to authentic language and they are then able to programme their brain with accurate English. They can also improve various skills such as listening comprehension, pronunciation and spelling.

Rod Ellis (2003) points out that the focus is typically on meaning rather than specific linguistic forms which allows the learner to acquire incidental learning of the language. Unlike written text where our students have a tendency to stop reading in order to check vocabulary or language forms they aren't familiar with, the game motivates the students to continue and, in turn, the students are more likely to try and guess the meaning rather than delay the playing of the game. In a follow-up study conducted by Chen and Yang (2013), they found that these types of games can give the student the language exposure needed to improve their listening, reading and vocabulary skills. The results of the study also showed that the students felt an increase in motivation to learn English.

In my experience with these games, I have discovered that the player may also develop their logic and problem solving skills. Within the game, the players typically need to solve a mystery or a problem in order to advance. For example, in <u>Otherworld</u>, the player needs to obtain a wing of a butterfly from a hole in the bottom of a basin. When they tap on the hole, they are given the message, "Darn, my fingers won't fit! How do I get it?" In their inventory, they have an empty pitcher. The solution was to fill the pitcher with water from the river and then pour it in the basin. The wing would then float to the surface where they could collect it. When students first start playing these games, I've noticed that they find some of the tasks difficult, but with more experience these challenges become easier. It would be interesting to find out whether it's their logic and problem-solving skills being developed or if it's just them becoming familiar with the standard

Image 4 Screenshot taken from Beauty and the Beast Mystery Legends

adventure game structure.

What makes an effective game?

Teachers typically don't have the time, the skills or the resources to develop a highly engaging, visually appealing game. It is therefore necessary for them to use the games that already exist. Unfortunately, this means the game cannot be adapted or modified in any way to suit the needs of students. Teachers need to keep in mind several factors when identifying an effective game for their students:

1.   The language cannot be too high or too low.

2.   The pronunciation should be clear. Subtitles are an additional asset.

3.   It should be a well-designed game so that it is a challenge, but not so challenging that the player stops playing. (Chen and Yang, 2013)

If the language is too low, then there is nothing new for the students to learn and they may find it boring. If it is too high, then the student could become frustrated with the game and want to stop. You need to find the right balance between giving them a task they can achieve and challenging them so they develop their language skills at the same. The zone of proximal development by Lev Vygotsky should be kept in mind when choosing a

game. This is defined as "the distance between the actual developmental level as determined by independent problem-solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers" (Vygotsky, 1978, p.86). Therefore, you want the language to challenge the student, but not so much that they couldn't handle it with some aid from the teacher. After reviewing over 20 games in the Big Fish inventory, I've found that each game has some language that is difficult no matter the level of the student.

However, if that language is not necessary to move forward in the game and it wouldn't cause undue frustration with the player, then I don't consider the game as inappropriate. You do want to ensure that the language is not archaic or too colloquial. The student shouldn't need to learn a whole new language in order to play the game. Clear pronunciation and subtitles were a definite asset to our lower-level Foundation students, who were introduced to one adventure game too. It helped that they were able to listen and read at the same time. Not all

games have this feature, so it is important to think about the specific students and their level when reviewing a game. You also need to consider the language needed to complete the tasks. As you can see in the screen shot of 13th Skull from *Big Fish*, it can be quite simple and even our lowest level students will understand what they need to do. Even if they don't know what a "manor" is, they will see the word "enter" and a house in the background, so they can guess from the context of the story what they need to do next.

It is also necessary to take your students' interests into consideration. Working primarily at a women's college, I tend to look for games that have a fantasy or romantic element in them because these are story lines that consistently interest my students. In Beauty and the Beast Mystery Legends, the player becomes Belle and needs to rescue the prince from the evil enchantress. Our female students were excited to play this game and thought the story was entertaining. I'm not sure how interesting this game would be for a middle-aged group of men or women in other cultural settings. For male students, I
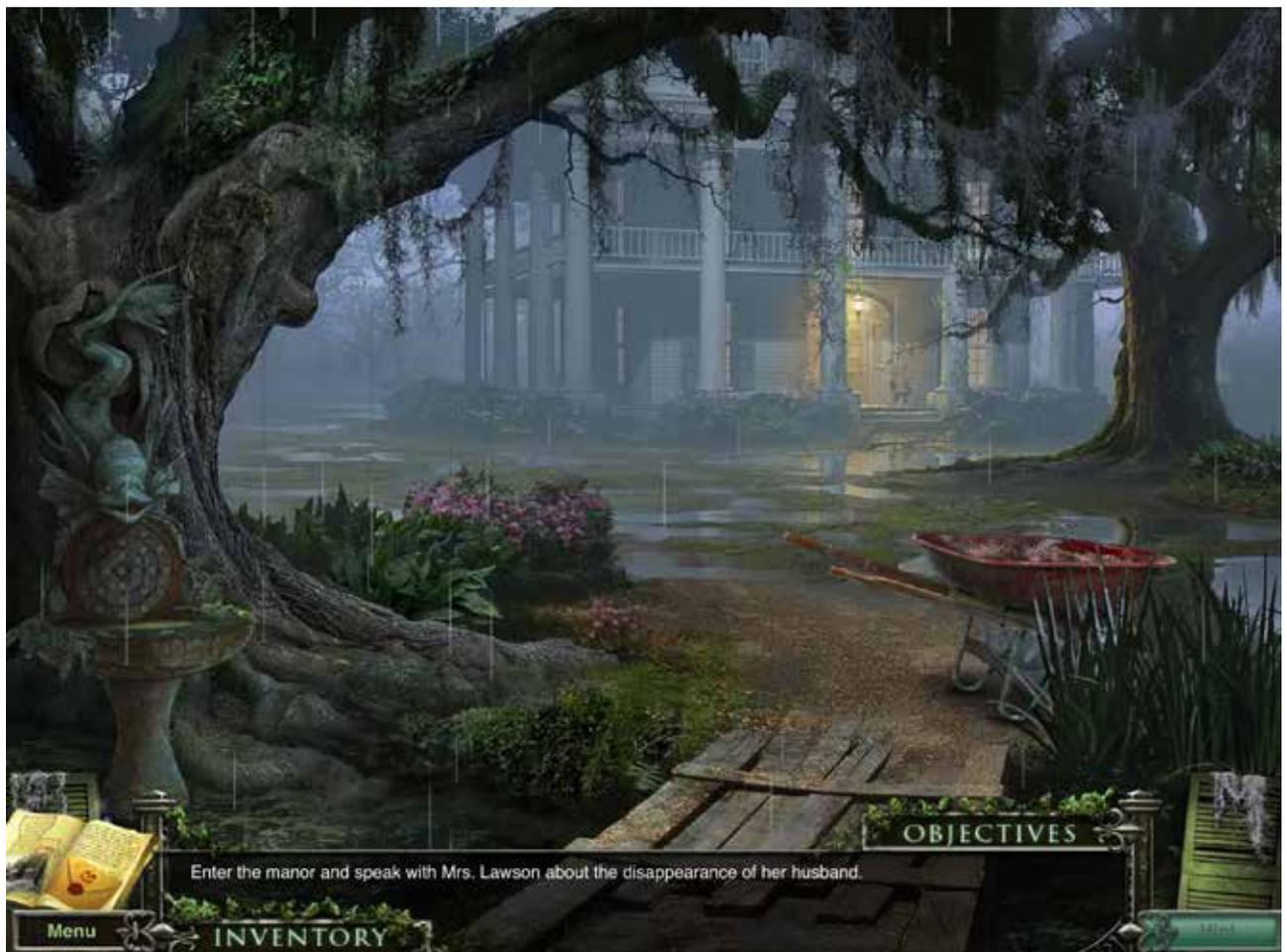

Image 5 Screenshot taken from the 13th Skull.

would definitely choose something different, maybe with more action and less romance.

Recent experiences with Big Fish adventure games

In the past year, several faculty at Ras Al Khaimah Women's College have introduced adventure games to their students. The overall results were positive. The students were engaged and motivated to play the games. Two level-3 classes, which have students ranging from A2+ to B1 on the CEFR, were introduced to Grim Tales: The Legacy. One teacher created an eBook to introduce the game to the students, so they understood the storyline and how to play. After playing the game, the students completed a survey. All but one student responded positively to the game and expressed an interest to play it again. Most of the students also believed it was a good way to practice reading and increase their vocabulary. One student wrote, "I think some of video game are chances to think outside of our minds' box. Also, without any doubt they give us many skills such as focusing and connection which improve our critical and logical thinking because they help our mind to think faster under the pressures" (A. Al Shehhi, personal communication, June 21st, 2013).

 More recently, we introduced Otherworld to 39 level-1 Foundation students who have a much lower level of English, ranging from a high A1 to a A2 on the CEFR. We were curious if the results would be similar. Would they be as motivated to play the game or would the language level cause them frustration? Would their vocabulary knowledge increase?

 Their teacher first gave them a short vocabulary quiz to see how many of the common words from the game they already knew. With the words that were at their level, they needed to fill in the blank below an image. With more difficult words with which they might not have been familiar, they needed to match a picture with the correct word. Next they learned and practised the vocabulary using a picture matching activity. Then they played the game and took the same quiz again. The average score on the first quiz was 27% and increased to 61% on the second quiz. The students improved their vocabulary knowledge by 34%. Some the students even received a 100% on the quiz. Now the question is, how much was the game helping them remember the vocabulary and how much was the pre-teaching of the vocabulary? It would be interesting to do this again, but divide the students in three groups: one group would take the first quiz before the pre-taught vocabulary; one would take the first quiz after the pre-taught vocabulary; and one group would not have pre-taught vocabulary, they would just take a pre- and –post quiz before and after the game. We may see a difference between the three groups.
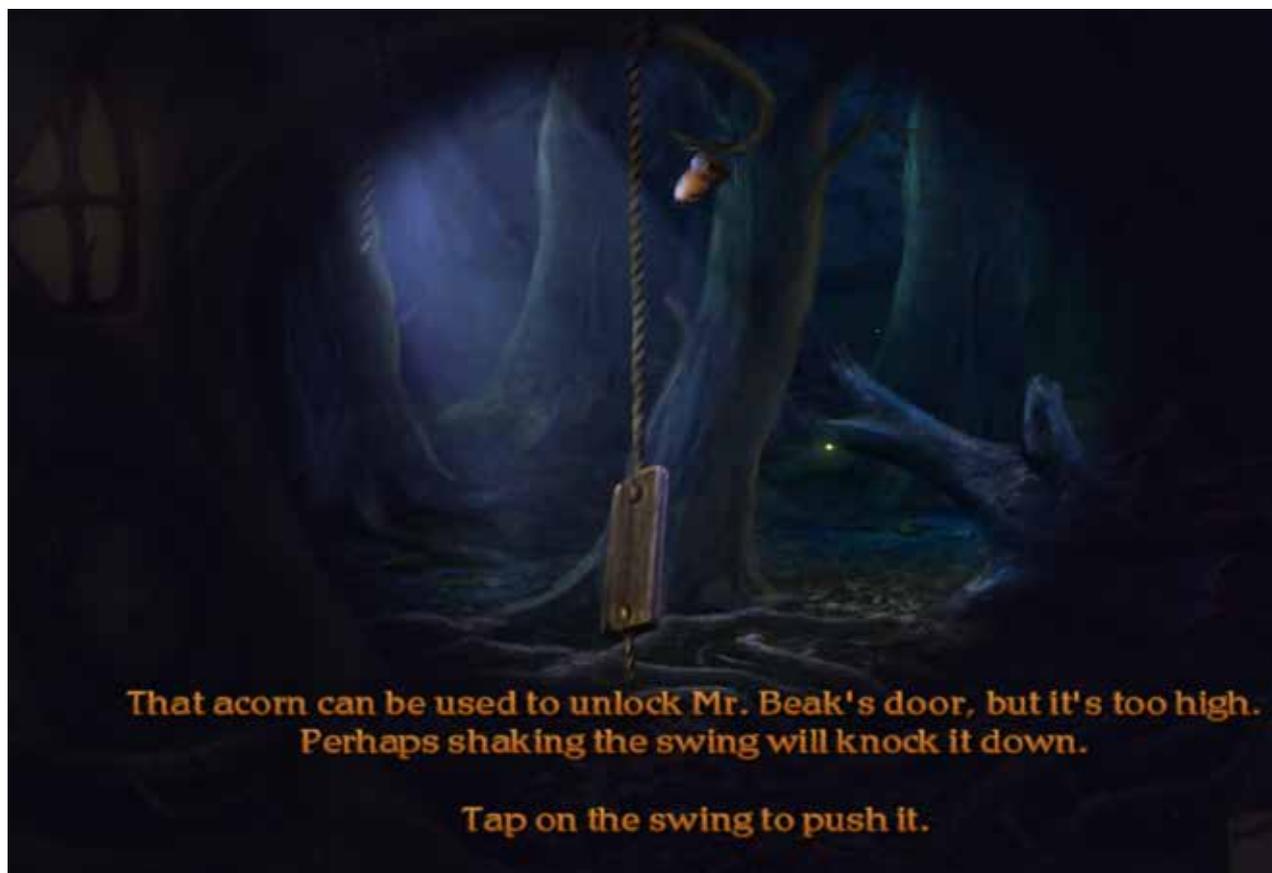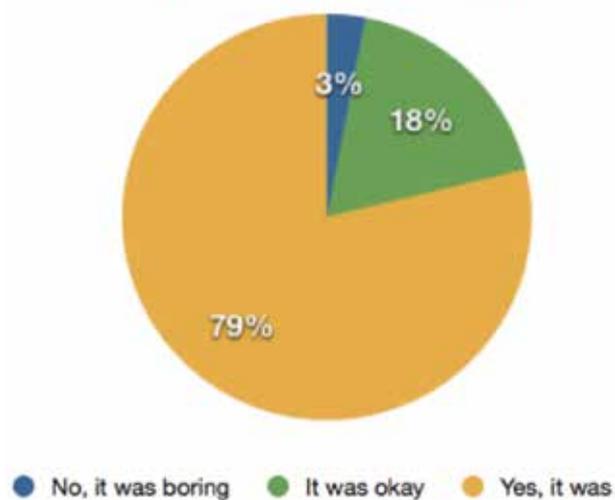
Image 6 Screenshot taken from Grim Tales the Legacy.

Another question to consider is: what is the long-term retention of these words? We will need to test the students again later in the semester to find out how many words they remember from the game. If they are not exposed to the words again and don't repeat the game, would they retain these words?
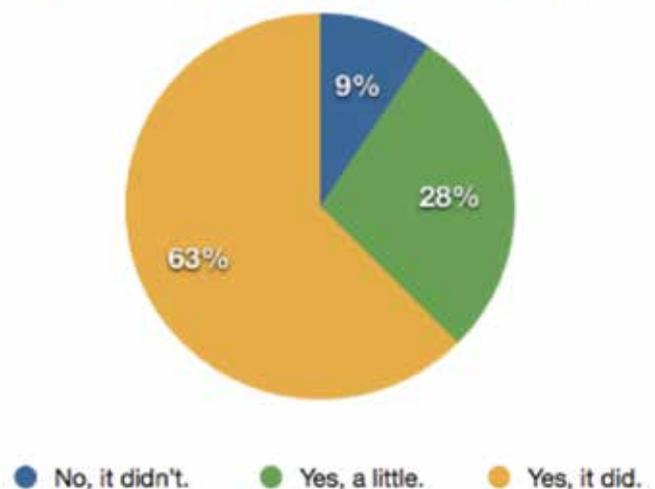
It wasn't just the increase in vocabulary that we wanted to test. We wanted to know if the students enjoyed the game and if they believed it was beneficial for them. After taking the vocabulary quiz, 33 students completed an online survey about their impressions of the game. As you can see in the pie charts below, the results were mostly positive with only 1 student believing the game was boring, only 3 stating that it didn't help them improve their English and none feeling it was very difficult. When I asked them if they would like to

likely will not stop the game and find out the meaning of this word. This can be seen as both a positive and a negative. On one hand, at the least the student would try to understand the word from the context; however, there is a loss of learning opportunity. An additional downside is that some vocabulary is not essential or relevant for ESL students. For example, in Grim Tales: The Legacy, the player needs to find
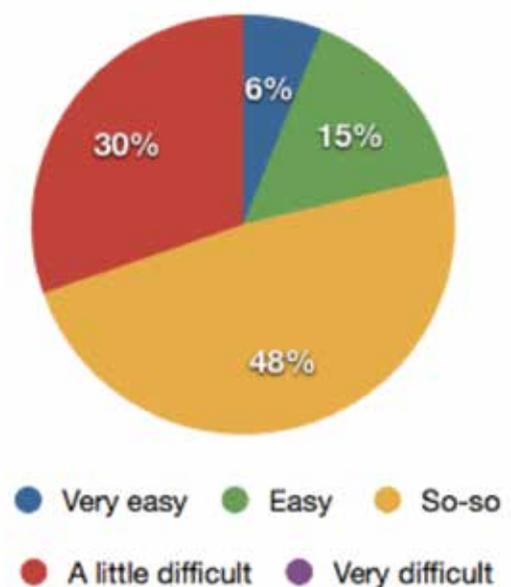

Did this game help you improve your English?

9% — No, it didn't.
28% — Yes, a little.
63% — Yes, it did.

Did you like playing the game?

3% — No, it was boring
18% — It was okay
79% — Yes, it was

How difficult was the game?

6% — Very easy
15% — Easy
48% — So-so
30% — A little difficult
Very difficult

play a similar game, the overall answer was yes. This was even the answer with the weaker students who found the game challenging. After most of the students had finished the game, the teacher tried to change the focus of the lesson. One student, who hadn't finished playing it again, yelled out, "Miss, wait I have to save Fiona!" Her focus and intent on completing the game was strong even though it was taking more time to complete it compared to others in the class.

The Negatives

As mentioned before, 'off-the-shelf' games were not designed for language learners. You can't slow down the speech or pause the cut-scenes. It is also not possible to adapt the texts for the learner's level, so you need to prepare the students beforehand and choose games that are appropriate for their level. There is no built-in dictionary either. If the students encounter a difficult word they most

things like a gnome and a machete. These words would not be in my list of top 1000 words to teach Foundation students, but not knowing them wouldn't stop the student from

progressing in the game. The students can simply use the hint button to help them through this stage of the game. As well, the teacher can highlight the important vocabulary

Image 7 Screenshot taken from Grim Tales the Legacy.

before playing the game so that the students can focus on those and not worry too much about the other words they don't know.

As I've discovered from some informal research, vocabulary knowledge can improve by playing adventure games, but it's been shown that other linguistics structures may not be learned or mastered. Cheung and Harrison (1992) found in their adventure game study that students improved significantly in programme-specific vocabulary, nouns and verbs, but the two other linguistic structures that were presented to learners in their game, prepositions of place and conditional structures, were not retained as well. They believe this is due to the fact that the understanding of these structures was not needed in order to advance in the game.

Advice for Introducing Adventure Games to your Students

Play the game several times yourself. Obviously, as teachers we need to play the game before introducing it to our students. In the United Arab Emirates, we need to ensure there is nothing offensive in the game for our students because such games are usually designed in other cultural contexts. We also need to look at the linguistic structures used to ensure nothing is beyond the reach of our students. This not only includes the vocabulary, but the grammatical structures and the colloquial phrases used. As well, you want to make sure that the game would be interesting for your group of students. One game might be

great for one group, but disastrously unsuccessful with another. The Big Fish games allow you to play the first chapter for free, but I highly recommend that you purchase the full game and play it until the end. The students who really enjoy the game will purchase the rest of the chapters and you want to check that the entire game is appropriate for your students. Playing the full game several times yourself will also help when you assist the students. You will know the areas where they may encounter problems and how to get them through those without giving away the answer.

Pre-teach the vocabulary and let them 'cheat'. Especially for the students in the lower levels, it is beneficial to teach them the key vocabulary before they play the game. This will help them understand the language and progress in the game more quickly. Allowing and encouraging your students to use the hint button is also very important. Sometimes it is the language given in the hint that can stick with your students. Usually, the language is simple and to the point so the student may gain confidence playing. You never want your student to get frustrated to the point of quitting the game, so it is important that they can access help when needed. I also recommend creating vocabulary/language 'cheat sheets' for the students to refer to when playing the game. They can even create these themselves before they play the game. In two experimental studies using the game The Sims, Miller and Hegelheimer (2006) observed that the ESL learners who

were able to use vocabulary lists and exercises during the game had considerably higher scores on their post-game vocabulary tests than learners who didn't.

Play the game together in the classroom first. Playing the game in the classroom first allows for collaborative learning. If the students haven't played adventure games before there will be some initial confusion and having peers help each other can be beneficial and a great learning opportunity. The downside of that in an Arabic monolingual classroom is when the students revert to their mother language. This is where the teacher's participation is vital to further develop the language and problem-solving skills. For example, instead of saying "you need to find the key," you can say "What do you need to open a locked door?" This will reinforce the language needed in the game and get the students thinking about the solution to the problem. This is another reason why you should play the game several times before bringing it into the class. Questioning while playing together will also provide students a chance to produce spoken language, something that is lacking in the games.

Preview how to play the game. Adventure games are pretty intuitive, but if a student has never been exposed to them before, it is a good idea to review how to play before starting the game. *The 13th Skull game* has a great "tips and tricks" page to review, as seen below. Showing the students how to move around in the game, connect items, learn what to do next and get help when needed, will make the initial play much smoother and more successful. It will also allow the student to focus on the language and the game itself rather than on the technical aspects of playing.

Pre-game Activities

We want the students to enjoy the game and learn from it at the same time, so it is important to prepare them to play. These activities are intended to introduce key vocabulary and language structures that students will encounter in the game. Adequate preparation will enhance language-learning opportunities and ensure a more successful gaming experience.

Prediction essays. Before you play the game, show pictures of the game and introduce some of the characters. Then, have the students write a prediction essay. If you have lower level students, they can make a prediction movie trailer. After they play the game, they can see who made the best predictions. This can be done individually, in pairs or in groups.

Vocabulary Activities. Memory games, picture/word matching activities, student-generated iMovies introducing the words, and flashcards are just a few of the many ways you can introduce the vocabulary before playing the game.

Image 8 Screenshot taken from 13th Skull.

Choose the correct sentence. Present screenshots with several sentences. The student needs to choose which is the correct sentence for that scene. This can help them become familiar with the grammatical structures and vocabulary before the game.

Recognizing grammar structures. Choose sentences from the game to analyse. Students can decide if they are predictions of the future, explanations of the past, or a command.

Who said it? Review the characters of the game, then introduce sentences and have the students decide who said it. You can review the answers after playing the game.

Post-Game Activities

Due to the fact that these games give little to no opportunity for the students to produce language, it is important to give them the chance to use the structures and vocabulary acquired through playing the game.

Students become the teacher. Split the class into two groups and give each group a different game to play. Have them play the game and determine the important vocabulary or linguistic structures. They can then pre-teach this to the other group. On the iPad, this can be done using various apps, such as Keynote, iMovie or Explain Everything.

Create a walkthrough. Similar to the above activity, divide the students in groups and give each group a different game to play. Have the group create a walkthrough, which is a step-by-step guide on how to play the game, for the other students. These walkthroughs can be done with a reading/writing focus or a speaking/listening focus. The students will need to explain how to play the game through a written or spoken format, then their classmates from another group would need to follow the instructions

in order to successfully finish the game.

Create a trailer about the game. Students play the game again and take screen shots of the important scenes needed to create a trailer of the game. You can present the trailers to the class and decide which best captured the story.

Rewrite the Story. Have the students write the storyline in their own words. Key vocabulary can be put on the board as a reminder of what to use. Characters can be described with details on their physical appearances and insights into their personalities.

Which game was the best? After playing two different games, the students can discuss which was the best and why. They can also write a comparative opinion essay on the same topic.

Conclusion

Adventure games and classroom access to new interactive technologies have created vast opportunities for more exciting and engaging language learning. Previewing adventure games, a teacher may see the language learning opportunities, but it doesn't guarantee that the learning will happen. There are some missing elements in the language acquisition process, such as production. Playing adventure games is not the ultimate solution to learning a language, but there are enough advantages to include them in the modern English language classroom. They can be highly motivating and engaging and, if used correctly, teachers can harness this enthusiasm for the game in pre- and post-game activities. This will allow teachers to exploit the language presented in the games, thus giving their students even more opportunities to acquire and retain the targeted language.

Adventure Game Links

13th Skull

https://itunes.apple.com/ae/app/mystery-case-files-13th-skull/id470070672?mt=8

Beauty and the Beast: Mystery Legends

https://itunes.apple.com/ca/app/beauty-beast-mystery-legends/id470415013?mt=8

Grim Tales: The Legacy

https://itunes.apple.com/ca/app/grim-tales-legacy-collectors/id502715012?mt=8

*Nancy Drew: Resorting to Dange*r

http://www.herinteractive.com/Mystery_Games/Nancy_Drew_Dossier/Resorting_to_Danger/pc

Otherworld

https://itunes.apple.com/ca/app/otherworld-spring-shadows/id519767567?mt=8

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