

# The Influence of Online Games in English Language Learning

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**Abstract.** One of the major obstacles to learning English is the monotonous drilling and rehearsing that saps learners' motivation and causes them to feel frustrated. This article makes an argument for the motivational effects of integrating online gaming into conventional learning settings. Firstly, it reviews the definition of game-based learning and then take bloom's taxonomy and effective game design elements into account. Then introduce a self-design game called Flytrap Vocab with its screens design, learning activities and goals and illustrate how this game promote learners 4 main competences in term of their reading, writing, speaking and listening skills. Finally, this paper reviews 5 main affordances of this online game that facilitate learning by playfulness, accessibility, multimodality, motivation and engagement. In the end, this paper suggest more media and online games can be imply into traditional teaching model to increase students' motivation and interests.

**Keywords:** Game-based learning, English language learning, Motivation.

## 1. Introduction

Technologies today have fundamentally altered how people obtain information, communicate, and even approach learning. Students have easy access to technological devices and can engage with diverse media for longer periods of time. Under this high exposure to digital devices, even younger kids are familiar with online resources and video games. Technologies have dramatically changed the way people gathering and analyzing information. In traditional classroom setting, teachers need to take care of everyone's needs and consider the time efficiency so that majority of classes are lecture based and teacher centered. It can be challenging for individual learners to find differentiated instruction that caters to their unique interests, requirements, and language skills. Speaking, listening, writing, and reading cannot be separated during the acquisition of a second language. As teachers, it is our goal to fully develop each student's speaking, listening, reading, and writing skills. All children learn their mother tongue from an early age, and their oral and listening skills develop before their reading and writing skills. However, second language acquisition shows various patterns. For young English learners with little literacy in the home language, basic oral language competence is likely to emerge earlier than competence in reading and writing[1]. As instructors, we want to develop all students' abilities to the fullest as better listeners and speakers, readers, and writers in target language. This paper is aiming to discuss the influence of online games in boosting motivation and engagement of primary school English learners in China. Especially, the affordances of online game can support students' development of their 4 main language competences namely reading, writing, speaking and listening.

## 2. Literature Review

### 2.1. Gladys and Daphnee's study

In Gladys and Daphnee's study, 2321 high school L2 learners and 45 teachers were asked to examine their perception of grammar instructions. Some groups respond negatively in terms of the perception of grammar which "answers included words such as boring, useless or difficult"[2]. Results shows the necessity and importance of teaching grammar but in a more enjoyable way. In order to motivate students' second language learning in a playful and engaging way, game can be an effective learning tool for language acquisition. As Donmus mentioned when games and education

come together, they can be educational and educational settings can be fun. Learners who have learned to use games develop positive attitudes and can be more engaged while learning[3]. This affective gamed based learning environment will minimize the boredom and frustration in the learning process and boost students' intrinsic motivation.

### **2.1.1 Language competences**

For English language learning, the key is to improve the four main competences including reading, writing, listening and speaking. The four essential language skills—Listening, Speaking, Reading, and Writing—can also be divided into two categories: receptive language skills and productive language abilities. Unlike other content-based subject, Science, Math, Chemistry, Language work as tools to transmit information and interpret meaning. In order to produce sounds and words in speaking and writing format, learners need to acquire knowledge through listening and reading texts at the beginning stage. That's why the listening and reading process are called receptive skills which they accept outside information and take inputs. On the contrary, writing and speaking are productive skills which actively generate outputs. "If language structure makes up the skeleton of language, then it is vocabulary that provides the vital organs and flesh" [4]. Without using proper words, it is hard to convey the meaning and idea accurately. It is essential to acquire vocabulary earlier than learning grammar, sentence structure of the target language. The fluency of using target language will increase with the mastery of large quantity of words, grammatical rules, sentence structures and so on. Vacide Erdoğan also mentioned that in order to increase students' competence in modern society, they must be adept communicators, creators, critical thinkers, and collaborators (4Cs) in addition to mastering the "Three Rs" (reading, writing, and mathematics) [5]. To encourage the development of each ability, teachers might design and produce a variety of activities, then incorporate them into the teaching process. Similarly, Eaton believed that students should learn how to utilize the language to communicate within specific cultural situations rather than focusing on grammar, memory, and core learning in second language classrooms [6]. At this point, teachers can create more innovative, inspirational activities like incorporating games into the classroom to assist students successfully communicate their thoughts and ideas orally, in writing, and nonverbally. Additionally, games can help players improve their cognitive abilities, complicated decision-making skills, and teamwork abilities [7].

### **2.1.2 Game-based Learning**

Game-based learning is described as a game play that is associated with specific learning outcomes in the Plass et al. (2015) research [8]. It also discusses the distinction between gamification and game-based learning which game-based learning using visual design and other functions to make same topic become more interesting and engaging. Plass also includes "game mechanics," "visual aesthetic design," "narrative design," "incentive system," "musical score," and "content and skills" as elements of game design for learning.[9]. By implementing those potential effective and game design elements, the learning environments can be more engaging, effective, and interesting. According to Bloom[10], learning can be achieved in subsequent level. For the bottom level of learning, learners are able to remember and understand the basic contents through memorization and repetition or explanation and identification... On top of that, learners can apply and use the previous knowledge in new contexts and make connections among ideas. In my game design, students first acquire knowledge of things like sentence structure, frequency words, story elements, etc... Then they spend time comprehending how vocabulary work in different scenario. Once they've done that, students can solidify understanding by applying what they've learned in sentence or story making.

## **2.2. Online Game Design- Flytrap Vocab**

### **2.2.1 Needs Assessment**

This design is targeting primary school English learners in China aged 6-12. Students can use any electronic devices including mobile phone, laptop and iPad to access this online game through website link. Vocabulary and sentence structure memorization are two areas where many English language

learners struggle. According to the conventional learning model, students simply know how to recite words and put them together to form sentences. The exercise and repetition did not help the students; they made little development in their oral speaking and reading comprehension abilities. They feel the reciting process is boring and tedious and always loss focus and motivation. Through practicing and playing this game, students are able to acquire basic sentence structure and new vocabulary in a playful and self-adaptive way. Games make a difference in helping teacher's instruction and lesson planning. It also helps students' study transfer from teacher center to student centered. Flytrap Vocab is designed to improve students' comprehension, reading fluency, story making and vocabulary building.

Students can play it in formal classroom setting or informal home setting. The advantage for using this game in the classroom is that students are capable of sharing their thoughts and experiences with peers. Teachers can also help students who finds difficulties on using certain functions or buttons of game. The typical school classrooms got disturbed by students' getting up, or standing in rows and shout out answers. Games are very eye-catching compare to the slides on the board and easy to maintain younger users focus. On the other hand, students can also get parents' help as well if they access game at home. It is easy for parents to track their language efficiency and mastery of vocabulary.

### 2.2.2 Media Selection

In terms of media selection for learning, we need to consider learners' learning strategies and type of knowledge. The type of learning theories can be classified into three main domains: behaviorism, cognitivism, and constructivism. The behaviorist's aim is to get the desired response from the learner when presented with a target stimulus.[11]. While Cognitive theories help learners organize and relate new information to their existing knowledge. [11]. The goal of learning game design is letting students not just to exhibit previous knowledge by recalling facts, terms or answers, but also demonstrating understanding concepts by organization, translation, interpretation, etc. Moreover, they can even solve problems by applying knowledge, rules in a given situation. In Yilmaz's article, he summaries the implication of Vygotsky's social cognitive theory on instruction that It should present students with real-world challenges so they may work through problems and advance, followed by individualized assessment.[12]. Unlike other medias like VR, AR which are too complex for younger learners to operate, online games using self-adaptive system to better matching individual needs and interests. Through playing the build-up level vocabulary games then using those words to build sentences, students can develop their writing and reading skills at the same time.

### 2.2.3 Learning Activities

On the home page of this game, students can choose from two sessions which one is vocabulary, while the other session is story making. Once they go into the vocabulary page, they will see multiple mosquitos flying in the air which the flytrap is showing at the bottom. On the body of each mosquito, a word will attach to their wing. This self-adaptive game system will choose the grade-level matching frequency words for students to learn and play. On the right side of screen, there will be three stars represent three levels of difficulty.



Fig. 1 Main Screen designs

**Level 1**— direct picture will be given as easy clue to show the word meaning, and then students need to click the right mosquito, if they pick the right one, then the flytrap will eat it otherwise mosquito still be there. If they choose the wrong one, the existence of mosquito gives learners direct feedback or clue to help them rethink about the solution or answers.

**Level 2**— mother tongue (Chinese) translation will show on the side which lead students to use their L1 knowledges to help L2 acquisition.

**Level 3**— target language (English) description will be given and students will try to use contexts to comprehend the meaning of words. Earning points for each level are quite different and will increase with the level of difficulty. In this case, students can find the interest and motivation to play this word games in order to win more points.

> Screen designs



Fig. 2. Main Screen designs

In the Session two of “story making,” learners can unlock different characters using the accumulate points. The characters will act it out the sentence and story you make. Considering various social and emotional needs, the characters are not limited to insects, but also zoo animals, toy and even cartoon characters. Kids have self initiative to choose what they like. Once they choose their favorite character, they will go to the sentence making and story making page.

On this sentence making page, there will be several main boxes showing on the top of screen named subject, verb, object, adverb, adjective, setting... There will be a word list in each box that students can pick one from each. And the words they choose will slope down to the bottom line to form a longer sentence. The more sentences they make, the better chance they can make a nice story by continuing adding setting, problems and different character. Most interesting part is the character will perform the learners choices so that students can use creative animation and video to enhance their understanding of words using in different contexts.

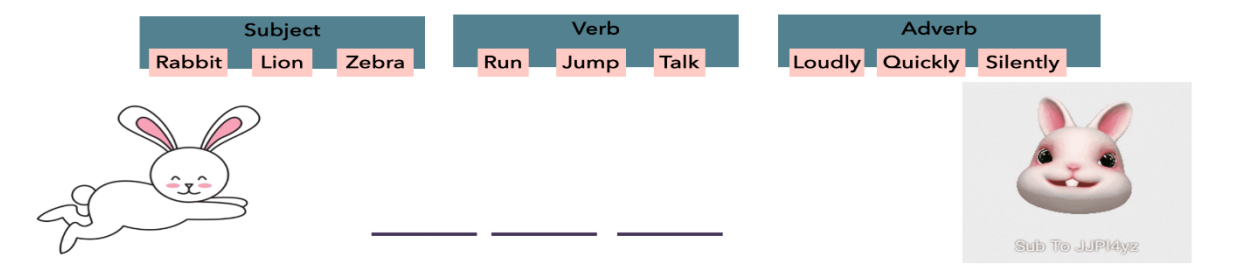


Fig. 3 Main Screen designs

## 2.3. Media affordances

### 2.3.1 Playful

In this section, four features of media affordances will be illustrated. The level of difficulty will increase user's engagement and stimulate greater responses. It would not be too easy or too difficult so learners feel frustrating and boring then quite easily. The aim of game is being instructive and enlightening in vocabulary acquisition and story making. Through the animation of mosquito and flytrap, younger users are able to understand the meaning of vocabulary in a productive and fun way. Session one will place greater emphasis on thorough learning and word accumulation than the conventional matching game or word recitation. The entertaining features of online games will entice students to utilize them more regularly and improve their language skills in areas like reading comprehension, writing structure, grammar rules, and other areas. Language learning should be limited to short-term memorization and practice.

### 2.3.2 Accessibility

Students can easily access to this online game through multiple electrical devices by using iPad, computer or even mobile phone. However, larger screens are highly recommended for younger users since it is better for their eye-sight. The key element is WIFI and internet connection so that online games can function well with stable and reliable network. Nowadays, many schools provide digital equipment for students to use for researching, gaming, testing and project designing. In this case, students can access this game both at school and home. With this easy accessibility, teachers and parents are able to know individual's proficiency level. Instructors can make modification and adaptation in lesson planing and better targeting their deficiency in language learning.

### 2.3.3 Multimediality

The entire game's design combines words, sounds, video, and images in addition to the word format. It offers chances for both verbal and figurative deciphering. Students can improve their reading and listening skills by employing audio and visual aids when using multi-media. Younger users, who lack solid foundations and grasp of the target language, really need and require those services. Their perception and assimilation of knowledge can be supported more effectively by visual and aural examples.

### 2.3.4 Motivating

By using incentive systems like points and rewarding characters, students are highly recommend to learn in their own pace and level of language proficiency. There are also lots of inspiring prompts and story elements to spark their imaginations. Students are encouraging to create their own stories and sentences using their imagination and previous knowledge. Instead of acquire isolated vocabulary, games bring contexts and situation to the learning process which make the language using be more adaptive and effective. Students are able to make connection between word meanings with real-life pictures and different situation. In game world, students become more active participants to receive information without passive receiving knowledge in traditional teacher-centered model.

### 2.3.5 Engaging

The engaging affordance of game also contributes to the development of listening, reading, writing and speaking skills while improving their logical thinking and problem solving abilities at the same time. students who making their own story, for example, will rely on real-life experience, take notes, read other stories, think about conflicts and solutions. Moreover, it allows users to bridge their pre-request knowledge (vocabulary) into new concepts (sentence making & story making). Younger learners are struggling with maintaining focus and easy to get bored. Different sessions and functions give them space and chance to explore new functions and learning concepts with rewarding system. It can keep their attention on using this game to promote 4 main language competences.

## 3. Conclusion

Although views on using online games in second language acquisition are varies from person to person, the researcher tends to believe that the affordances of online games will develop students' reading, listening, writing and reading skills in a motivating and engaging way. Online games works effectively to eliminate the boredom and frustration in English vocabulary and grammar learning. With the tendency of widely use of electronically devices, younger learners can access and use this online games in their daily vocabulary learning easily and conveniently. Incorporating gamed based learning in English language learning remain innovative for teachers and students, however, it should provide positive feedbacks on their learning outcomes.

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