

## Enhancing the Saudi EFL Students' Pronunciation of the English Phoneme /v/ via Immersion in Virtual Platforms

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### Abstract

This study provides findings about Saudi English as a foreign language (EFL) learners' pronunciation of the English phoneme /v/. Since the Arabic phonological system does not distinctly differentiate between /f/ and /v/, some Saudi (EFL) learners occasionally and unintentionally overlap these phonemes. One of the tools in the virtual platforms is online games such as the massively multiplayer online role playing games (MMORPGs) that offer English as the medium of instruction. Saudi families buy nearly three million PlayStation or X-Box sets per year to play MMORPGs. Generally, almost every family in Saudi Arabia owns an average of one set. Therefore, this study generally aims at investigating the effect of these online games, namely MMORPGs in enhancing pronunciation of the English phonemes /v/ by the Saudi EFL students at King Saud University-College of Languages & Translation (KSU-COLT). This study attempts to answer the two questions. First, will the incidence of EFL Saudi students' substitution of the NL /f/ for the TL /v/ be greater at the initial, medial or final positions while being immersed in MMORPGs? Second, will the incidences of error decline at ascending weeks of immersion in these virtual platforms? The findings showed that the students' overlapping of the /f/and /v/ phonemes varied according to the position of these phonemes in the English words (whether initial, middle, or final) and by their co-occurrence with other phonemes (whether vowels or consonants). Furthermore, Saudi EFL students' communication in English via immersion in MMORPGs have generally shown an ascending improvement through out the four weeks of experiment regarding their pronunciation of the English phoneme /v/ in all positions.

*Key words:* Constructivism, MMORPGs, phonology, virtual worlds

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## Introduction

Acquiring native-like pronunciation in the target language is one of the most complicated tasks in foreign language Acquisition. This complexity has been attributed as the "Conrad phenomenon," after the famous English novelist who spoke with a strong Polish accent throughout his remaining life in England. The Conrad phenomenon suggested that there is "a biologically determined period of life" when the phonology of a language can be acquired without difficulty and beyond which time this phonological competency becomes gradually more difficult to acquire (Arishi, 1991, p.92).

Attempts to explain the adults' acquisition complexity of first and second languages have led to the development of the Critical Period Hypothesis (CPH). This hypothesis assumes that there is "a biologically determined period of life when language can be acquired more easily and beyond which time language is increasingly difficult to acquire" (Brown, 2000, p. 53). This hypothesis when emerged focused only on first language acquisition, but later researchers have also included second language acquisition. Genesee's (1988) explains the research of linguists who tried to relate the CPH to second language acquisition starting with Lenneberg (1967) who suggested that language acquisition is difficult after puberty. Based on the concept of children's innate neuromuscular plasticity, they have concluded that native-like speech is not an easily acquired competency for adult students. Although adult foreign language students may learn conscious rules about pronunciation in the target language they invariably 'fall back' on native language phonological competence, resulting in an 'accent'. The main reason why language acquisition is difficult after puberty is due to the lost of the plasticity of the brain "at puberty, after which complete or native-like mastery of languages, first or second, is difficult and unlikely" (Genesee, 1988, p. 98). This plasticity assigns functions to different areas of the brain and cannot be changed. For instance, when the native language lacks one of the voiced-voiceless members, as Arabic does, since it has the /f/ phoneme but not the /v/ phoneme, the problem is that the brain of foreign students cannot perceive the difference while hearing this sound. Accordingly, the students assign the English phonemes /f/ and /v/ to the Arabic phoneme /f/. Inability for the foreign students' brains to perceive the difference while hearing these sounds consequently result in many instances of failures to pronounce such sounds accurately. This is why neuroscientists hypothesize that as humans grow older, information is embedded in the neural tissue as cells form circuits. Because speech comprises only a small section of the brain, speech sounds have limited space and "strong boundaries." Therefore, if the critical period does exist for humans, it should be impossible for adults to achieve native fluency in pronunciation.

Although, Lenneberg (1967) agrees that language learning after puberty was more difficult, he argued that another neurological reason "the completion of lateralization of language functions in the left hemisphere" (p.98) was the cause. Lenneberg studied children who suffered damage to the left hemisphere of the brain before and after the age of 12. The transfer of language function to the right hemisphere was found in children who suffered damage before age 12, but rarely in those who suffered damage after age 12.

Nevertheless, "research on the acquisition of authentic control of the phonology of a foreign language supports the notion of a critical period" (Arish, 1991, p.93). The most compelling disadvantage for adults is the failure to "acquire authentic (native-speaker)

pronunciation of the second language” (Brown 58) which unfortunately, many people judge as an extremely important feature of successful acquisition. Many adults who learned a second language can have fluent control of grammar and communicative functions, but also a foreign accent. This does not mean, however, that their acquisition of the second language was not successful. There are several individuals who learned a second language after puberty and attained native pronunciation.

Amongst the pioneering studies related to Saudi EFL students’ mispronunciations was Al-Arishi's in the 1990s. It focused on the mispronunciations of phonemes /b/ and /p/ by Saudi students learning English as a foreign language. Although his study recognized that there were many operatives affecting the phonological competence of target language learners, it was set out to develop a method for testing position discrimination of /p/ and /b/ ability only. His study concluded that there was a systematic relationship between position and production of the /p/ and /b/ phonemes. However, it only addressed the /p/ and /b/ pronunciation problems by Saudi EFL learners and his study was more than two decades ago before the emergence of many technological aids including virtual platforms such as MMORPGs which can more effectively enhance Saudi EFL learners' pronunciation.

During the last two decades, MMORPGs became widespread among children and young adults in Saudi Arabia similar to many other countries of the Arab World. A number of Saudi researchers observed, especially after the widespread of the Internet, that children and teenagers spend many hours daily in playing online games without any clear educational objectives. That led to the emergence of a new generation that is more attracted to online games. So, the researcher started wondering if it is possible to use these interesting and attractive games in learning English as a foreign language. Hence, those children and young adults will learn English while having some entertainment. MMOGRPGs as a one of the widely spread and well-liked online games amongst Saudis seem to have this potential since there are many games that might serve the goals of the English Integrated course (Eng 118) the research was assigned to teach and consequently wished enhance the learning outcomes of this course.

### **What are and Why the MMORPGs?**

MMORPGs are virtual platforms in which users inhabit and interact via immersed avatars (digital representations of the user). The Association of Virtual Worlds (2008) has listed over 250 MMORPGs including *Croquet*, *Quest Atlantis*, *Exit Reality* and *World of War Craft*...etc. Often these platforms, or subsets thereof, are referred to by a variety of other terms including multi-user virtual platforms (MUVes), massively multiplayer online role playing games (MMORPGS) and the Metaverse, Second Life Reviewer (SL)...etc. Specifying an agreed upon definition of second or virtual worlds in any detail becomes problematic due to the great diversity in media, interface, goals, systems, technological agency, user autonomy and social environment to name only some of the variables (see Schroeder, 2008 for a discussion of the complexity of defining Virtual Worlds). Consequently, it is more productive to describe the particular virtual environment in which this study is set and by which subsequent researchers can gauge the relevance of this study’s findings to their own context.

At any rate, the virtual platforms chosen for this study are, more precisely, the prominent platforms which provide online rich 3D massively multi-player role playing games referred to

later as (MMORPGs). These immersive platforms have been used for many different purposes. Teaching and learning other languages via such platforms is one of the relatively new technological tools. A range of factors might have contributed to such deployment including its wide use amongst youth and constant innovation of immersive learning tools. These MMORPGs are synchronous communication tools, so they enable users from all over the world to interact and meet at the same time. Users can have voice or text based chat and they meet physically through their avatars. These features could provide foreign language learners with an impressive learning experience with native speakers from all over the world. In addition, nowadays students are heavy users of computer games, so MMORPGs as prominent second life platforms might be good platforms to attract students to learning while having fun (Alarifi, 2008, 28).

Usually in traditional learning students study the new English vocabulary including new phonemes by heart and are not given enough opportunities to be involved in real life situations to practice these new words in their natural contexts or real situations. The reason of this is the difficulty and sometimes impossibility to have the learners practice in the real scene. So, these MMORPGs might be effective tools in learning foreign words and phonemes through and continue practicing them. Learners can live in immersive platforms in which everything in real life can be simulated in 3D shapes. Learners virtually would be able to see, hear, touch and practice things around them. This might enable teachers, in turn, to create a very rich environment to foreign language learners. A teacher of English as a foreign language told his experience in one of these online games saying, "I once dressed up as a pirate, had a ship and everything. I was kind of rough on the students," he admits. "I put some of them in cages, and had them confront language in a shock-and-awe kind of way. They seemed to like it, and they learned all sorts of new words, like 'loot' and 'booty' (Alarifi, 2008, p.15).

### **MMORPGs convenience to constructivist teaching methods**

The history of language teaching and learning witnessed the emergence of a number of methods of language teaching and learning, each of which was based on one or more of prevalent linguistic theories. In fact, any method of linguistic represents a linguistic theory that is trying to shed light on the nature of language, and the method of learning that the theory's supporters take it to be the most suitable means for language learning and teaching. Amongst the most prominent linguistic methods that became popular in recent times is the Constructivist Method that continued to be developed and modified.

The diversity of the aforementioned theories of language teaching and learning does not mean that each of them has a special method of its own. Thus, more than one method can be linked to one or more theories. The constructivist method in language teaching is not a method that depends on a specific theory, but rather tries to make advantage of all various methods. Thus, it benefits from the grammar and translation method, direct method, audio-lingual method, communicative method. So, its characteristics became more consistent with modern technological trends of language teaching.

Perhaps it's worthy to summarize some principles of constructivist method in language teaching. First of all, the constructivist method unifies the form and content in language teaching so as not to diffuse the language components during the process of teaching. This method stresses that language consists of:

- (A) Oral or written symbols: these symbols have no meaning if taught in isolation from their natural setting, which are words.
- (B) Words: these words remain with insufficient meaning if isolated from their contexts, or taught individually. Hence, if language teachers want to clarify the meaning of new words, they should not introduce them to students as abstractly or merely with synonyms, but rather introduce them within context to show their clear meaning.
- (C) Sentences and phrases: these sentences and phrases, once again, won't be clear if introduced as isolated segments to students. Their exact and full meaning can only be delivered to students within the situational context of the whole text.

Mere articulation of sounds does not necessary constitute a language unless they in actuality represent conceptual contents, otherwise the human voices parrots imitate would be considered a language. This requires the language teachers to start with contextualizing linguistic situations including form (spoken sounds), and content (meanings and connotations), and not just incoherent words and sounds. Examples of underestimating context might include teaching letters and sounds, starting with disconnected sentences, or providing synonyms or antonyms while explaining vocabulary, repetition and memorization of foreign sounds.

Secondly, the constructivist method stresses that language should be taught as a set of skills, like any other skills, that can be acquired through understanding, guidance, practice, reinforcement and setting model examples. The constructivist method also stresses on integration. In other words, the constructivist method also emphasizes that teaching any language skill should serve all the four basic skills (listening, speaking, reading and writing), and other skills.

What the constructivist method strongly underlines is gradual teaching of language skills. Hence, it recommends starting with listening, then speaking, then reading and finally with writing. This method appears to be consistent with the basic principles of learning. It urges language teachers to start teaching the easy skills to the more difficult ones and assumes the easiest language skill to a beginning learner is listening, and the most difficult is writing. Furthermore, the constructivist method gives emphasis to identifying learning objectives. It demands defining objectives since they help to choose the most appropriate way to achieve them. In addition, the constructivist method varies the use of teaching materials and actual or virtual realia. Since, learners vary in their abilities to learn, and in their attraction to these teaching materials and actual or virtual realia, therefore, varying such materials and actual or virtual realia helps to fulfill an important principle of learning principles, namely the principle of taking into account individual differences among learners. Also, the constructivist method encourages deploying modern technologies. This include many language programs such as computer and online games that enhance acquiring the language skills more efficiently since those techniques present great potentials in providing reinforcement, and feedback that have a significant role in language learning progress.

The constructivist method also supports varying assessment techniques because language is an integrated whole, and students vary in their ability to acquire language skills. Therefore, focusing on assessing one skill in isolation of the remaining skills is utterly not objective, and simply violates the principle of equal opportunities to all students. This, hence, requires careful

comprehensive assessments of all language skills using a variety of assessment techniques that consider all the capabilities of the students taking oral or written exams.

Last but not least, the constructivist method emphasizes employing language. This method considers that the utmost goal of teaching a language is its employment in actual or virtual life, not having it memorized in the learners' minds.

### Statement of the problem

A great deal of discussion has been raised in the field of language acquisition regarding whether or not foreign students are prepared for a perfect adaptation with a new phonological system. These discussions mostly rotate around the age of learners as a determining factor for acquiring a native-like accent. However, linguists, such as Krashen (1982), shifted the discussion to the manner and setting of learning as other determining factors. He provides evidence against the rigid completion or loss of plasticity or lateralization by puberty (P. 99). He assumed that evidence of children outperforming adults in second language acquisition is misleading because the manner of learning instead of age may be the main factor in determining successful acquisition. Most children learn a second language in a natural setting, whereas adults learn in a formal classroom setting. In fact, the problem with learning in a formal classroom setting is that after intensive-class phonological training, phonological fallback continues to occur outside class (Arishi: 99). For instance, an Arabic student learning English might be able to distinguish between /v/ and /f/ in *favor* [feivə] in a listening and speaking drills and produce both /v/s in *vivid* [vivid] in a pronunciation exercise in class. However, under certain circumstances outside a controlled phonological environment, he might say *fivid* [fivid], *vifid* [vifid] *fifid* [fifid] or even *vivid* [vivid]. The term "phonological variability" is used to designate this phenomenon where a target language learner uses a wide assortment of pronunciations of the same word. This phonological variability may also be determined by shifts in communication situations whether free speaking, interactive dialogue, or spontaneous conversation and speaker mood.

When tracing the source of this problem, different causes can emerge, including the lack of effective deployment of teaching aids that can immerse learners in semi-natural learning settings. MMORPGs as virtual platforms might compensate for this lack in the following ways: Through their avatars, learners can live in an immersive environment in which everything in real life can be simulated in virtual shapes. They virtually would be able to see, hear, touch and freely speak about things around them. These features could provide them with an impressive learning experience with native speakers from all over the world. More specifically, MMORPGs give the opportunity to create the inside world the way users like it to be, and hence gives the opportunity to design the learning scenarios as favored. In these scenarios, learners can play the roles of actors which might promote their learning since they learn by immersion. If foreign language learners get involved with native speaker of English in virtual scenes that resemble scenes of their natural life, this might enrich their phonological competency of the English new sounds and enable them in the future to more accurately pronounce them while speaking. Also, using such practices in language learning might help learners in the memorization and practicing of these sounds more accurately. Usually in formal drilling, students study the new sounds by heart and are not given enough opportunities to be involved in natural life situations or pronounce the new words in its natural context or real situation. The reason of this is the difficulty and sometimes

impossibility to have the learners speaking in the real scenes. MMORPGs can be an effective alternative environment for learning foreign sounds especially to nowadays students who are heavy users of computer games. In fact, MMORPGs might be a good environment to attract them to learn native-like pronunciation while having fun.

### Significance of the Study

This study investigates the effect of the virtual platforms (namely MMORPGs) in learning English phonemes by EFL Saudi undergraduate students at KSU. Many studies have shown the usefulness of technology integration in second language learning. However, no studies in KSA have researched the effect of such platforms on the pronunciation of EFL Saudi learners. Therefore, this study is significant because there is a need to assist the impact of such most innovative and widely-used virtual platforms in learning English phonemes and helping students acquiring accurate pronunciation more successfully for their daily oral communication.

Again, the widespread usage of MMORPGs whether in the Arab region or over the globe is inevitable. Alnafiaei (2009), in a report - published in the Saudi economic newspaper on 7-1-2009, wrote that the size of the Saudi families spending on electronic entertainment games is estimated at \$ 400 per year, and stressed that the Saudi market absorbed nearly 3 million electronic game sets per year, ten thousand of which are original game while the rest are not. The Saudi markets absorbed about 1.0008 million thousand PlayStation sets, and with more than 40% of the Saudi families owing at least one. Therefore, this study may help to facilitate the general acceptance of these advanced online platforms as a teaching aid to improve students' pronunciation of English sounds. More specifically, the results of this study will, hopefully, encourage EFL language instructors to consider deploying online MMORPGs to reinforce their students' pronunciation rather than relying only on class or lab-formal pronunciation drillings.

Finally, this study will hopefully contribute to the general field of foreign language acquisition. The results may also provide insights into previous research on EFL/ESL teachers' use of MMORPGs by either supporting or challenging earlier findings. While doing so, it may also shed light on other areas of related research in need of investigation.

### Hypothesis and Questions of the Study

The hypothesis of this study is that immersion in virtual platforms could be a factor that might affect the EFL Saudi students' pronunciation of the /v/ and /f/, whether initially, medially, or finally. More specifically, this study attempts to answer the following questions.

1. While being immersed in MMORPGs, will the incidence of EFL Saudi students' substitution of the NL /f/ for the TL /v/ be greater at the initial, medial or final positions?
2. Will the incidences of error decline at ascending weeks of immersion in these virtual platforms?

### Methodology of the study

#### The Population of the Study

The subjects chosen for this study were homogeneous; that is, they were all Saudi students, studying the English course (Eng 101) at king Saud University in Riyadh. The subjects' mother tongue is Arabic. This sample consisted of 24 students aged 19 years and above, and all had been exposed to instruction in English as a foreign language for at least seven years, one in

the elementary school, three in the intermediate schools and three in high schools. The repeaters in addition to those who were not versed in online games were excluded from this sample so as not to affect the study's results.

The study lasted four weeks with each week having two sessions. For each week, the researcher selected other six students starting with those who were the more experienced in playing the roles of avatars in MMORPGs. The selection was based on sampling surveys distributed all the subjects registering in this course. Then, virtual lessons assimilating one chapter of the textbook were played alive using the MMORPGs as in figures 1 and 2.



Figure 1: An Explaining Image of Rooms and Different Furniture and Utensils of a House in the Assigned the Textbook

Source: Enterprise-1-Course-Book, unit three.



Figure 2: An Immersive House in MMORPGs Simulating the Rooms, Different Furniture and Utensils of a House in the Assigned Textbook

Source: Sony Play-station, Call of Duty online games.

Because seven is the maximum number allowed to access simultaneously by the widely available version of this online game at the time of experiment. Six were students and one was the researcher. Since these MMORPGs offer up to 15 prestige ranks; each rank consists of 50 levels displayed in the summary record of each avatar, the best six students who got higher levels with upper prestige ranks played the roles of avatars with the researcher first to pave the way for other students for the sequent weeks. To make it easy for the remaining subjects to refer to, these lessons were recorded and attached as links in the LMS of the ENG 101 course. Throughout these weeks, the researcher played the role of a warrior and the students played the roles of other warriors who attack enemies in a house during the leisure time of the teacher and his students in the evening.

### Data collection

Although, resembling Al-Arishi's analysis methodology of the mispronunciations of the phonemes /p/ and /b/, the scope this study is discuss the mispronunciations of phonemes (/v/ and /f/) instead by EFL Saudi learners. Also, the subjects of this study have been immersed in interactive virtual environments (MMORPGs) rather than been set in regular audio-labs of the 1990s. Additionally, subjects' free virtual interaction was recorded rather than reading aloud of pre-prepared texts as was in Al-Arishi'd study. These three factors may provide additional insights that either support or challenge the earlier findings of Al-Arishi's study. These factors may also trigger other areas of related research in need of investigation. So, after recording the subjects' virtual interactions, their videos were attached as links on the *Learning Management System* (LMS) of the (Eng 101) English course entry. Then the researcher and an English instructor, logged in to watch the content and recorded a list of all the words produced by the students' avatars containing the phonemes /v/ or /f/. Numbering the videos and providing the precise and exact timing for the production of each word were essential procedures agreed upon by both raters for easy tracing in cases of disagreement. Correlation of the two revealed that there was a .87 inter-rater reliability. The correlations indicate that the raters' judgments were similar to one another. In the few areas of disagreement, the two raters watched and listened attentively to those relevant portions of the videos together and came to a consensus on whether a /v/ or /f/ sound was produced. However, due to the free interaction environment of the MMORPGs, the approximate traced productive number of these sounds varies from one group to another. The assumption is that immersion in MMORPGs could be a factor that might have affected the pronunciation of the /v/ or /f/, whether initially, medially, or finally.

### Data Analysis:

The data was analyzed by position and vowel-consonant/consonant-vowel clusters.

#### (1) Initial Position

Many students had greater difficulty pronouncing [v] initially before a vowel. However, no specific model emerged from the use of [v] before vowels in the initial position. Thus, during the fourth week, three students substituted [v] for [f] before [ɑ:] as [fa:z] *vase*, and before [ɛ] as [feri] *very*. In the third week, two students pronounced [v] as [f] with all vowel forms, while other two students substituted [v] for [f] only before [ɛ]. As to the second week group, four students at least once pronounced [v] as [f] before the most vowel forms. In the first week, five students at least once pronounced [v] as [f] with all vowel forms. The rating reveals that three of fourth-week subjects, four of third-week subjects, five of second-week subjects, and five of first-week subjects had at least one instance where they substituted [f] for [v] before a vowel.

Out of the total number of the subjects who mispronounced the [v] before a vowel, seventeen substituted [f] before [ɛ]; fifteen before [ɑ:]. However, variations are common amongst the subjects. For instance, three students (first week) sometimes pronounced *very* correctly, but as [fɛri] at other times. Five students (first week) sometimes pronounced *very* as [fɛri] but as [veri] at other times. Among the second-week subjects, three students always pronounced *very* as [fɛri], the remaining students pronounced it mostly correctly but at few times as [fɛri].

### (2) Medial Position

A tangible number of students had problems in pronouncing [v] medially. Concerning consonants occurring before or after the phonemes under discussion, almost all the ten subjects who used (*twelve*) and *lovely* words made errors substituted [v] for [f] before and after the [l] consonant with only two exemptions from this error; a subject who had long residence in an English speaking country and another subject who was exposed to extra English programs in a private academy often used and pronounced these two words correctly. Concerning the words where the [v] was followed by a vowel, eighteen students had at least one instance where they pronounced the medial [v] as a [f] in words such as [lɪfɪŋ ru:m] for *living-room*.

### (3) Final Position

Subjects throughout the four weeks often substituted [f] for [v] in the final position; three incorrectly pronounced [f] for [v] in the words ending with /v/ such as *have* [hav], *attractive* [ə'traktiv], and *expensive* [ɪk'spensɪv]. During the third week, four of the students mispronounced words ending with /v/ such as [haf] for *have*, [ə'traktiv] for *attractive*, [ɪk'spensɪv] for *expensive*, [twɛlf] for *twelve*, and [kɑ:fz] for *calves*. Throughout the second week, five substituted [f] for [v] in their pronunciations of such words. During the first week, almost all the first-week group incorrectly pronounced the /v/ in these words.

### (4) Proficiency by Weeks

As anticipated, the incidences of [v] error decline during the later weeks of the study. The decline is relatively slight between the first and second-week students but dramatically significant thereafter with most positions. While 70% of the second-week students committed pronunciation errors with the /v/ phoneme, 56% of the third-week students showed such a high incidence. Of the fourth-week students, 46% committed such pronunciation errors. While 84% final errors for [v] were made by first-week students, this percentage declined steadily: 67% (second week), 54.3% (third week) and 35% (fourth week). Less significant declines are seen with [v] medially: from 78.4% (first and second week) to 55.4 % (third and fourth week). In the initial position, the decline in [v] errors is more significant, from 78.4% errors in (first week), 72.7 % (second week), 55.7% (third week) and 44.4% (fourth week), although the weekly decline is more evident between the second-week (69%) and third week students (51.5%) with the /v/ phoneme in all positions.

The *p* value is calculated to compare the mean scores of the students' overall pronunciation improvement after immersion using the multiple comparisons-Repeated Measures Anova- as evident in the following table:

**Table 1: The Students' overall Pronunciation Improvement of the English Phoneme [v] after Immersion in MMORPGs during Four Weeks.**

Week	Mean	Standard deviation
1	27.08	0.55
2	29.08	0.54
3	32.6	0.61
4	34.68	0.56

**Table 2: Multiple comparisons and statistical significance of the difference between the mean scores of the subjects in applying the scale trend to measure the Saudi EFL Students' overall Pronunciation Improvement of the English Phoneme [v] after Immersion in MMORPGs during four weeks.**

Week (A)	Week (B)	Mean Difference	Std. Error	Sig. (2 tailed)
1st Week	2nd Week	2.00	0.33	Sig. at (.01)
	3rd Week	5.80	0.50	Sig. at (.01)
	4th Week	7.60	0.46	Sig. at (.01)
2nd Week	3rd Week	3.80	0.31	Sig. at (.01)
	4th Week	5.60	0.28	Sig. at (.01)
3rd Week	4th Week	1.80	0.17	Sig. at (.01)
4th Week	4th Week	0.17	0.17	Sig. at (.01)

Previous table shows the existence of differences between the Saudi EFL students' overall pronunciation improvement of the English phoneme [v] after immersion in MMORPGs during four weeks, that is, the progress scale of their trends was dramatically increasing.

**Table 3: The ( p ) Value and Statistical Significance of the Difference Between the Mean Scores of the Saudi EFL Students' overall Pronunciation Improvement of the English Phoneme [v] after Immersion in MMORPGs during Four Weeks.**

Source	Sum of squares	df	Mean of squares	p-value	Sig	Eta square ( $\eta^2$ )
Intercept	161,507.23	1	161,507.23	3841.19	.01	.99
Error	1009.11	24	42.05			

The previous table shows that the (P) value calculated (3841.19), at the level (0.01), it is clear that the effect size is greater than 0.8 equal to (0.99). It is already clear that there is statistically significant difference between the mean scores of the subjects' pronunciation improvements.

##### (5) Hypercorrection

A small number of subjects tended to hypercorrect by pronouncing the Arabic phoneme

[f] in words with the English phonemes [v] mostly initially before vowels. Only three subjects (12.5% of all immersed students) made this mistake habitually. One first-week student (who had long residence in an English-speaking country) made no mistakes of substituting a [f] for a [v], but he made four mistakes (quickly corrected) where he did the reverse: *Peautivul* (for beautiful), *fillagers* (for villagers), and *expensife* (for expensive). Also, one second-week student (who had been exposed to extra English programs in a private academy in Saudi Arabia) showed this tendency. He frequently corrected himself after pronouncing fine as *vine*, and television as *television*. This same student, however, pronounced very as *fery*, expensive as *expensife*, and vase as *faz*. No third-week student showed this reversal. Among fourth-week students, one made the unexpected reversal. He made no mistakes of substituting the Arabic phoneme [f] for the English phonemes [v], but made five mistakes substituting [v] and [f]: *verry* for ferry and *vine* for fine. The remaining [f]-sounds that he used, he pronounced correctly. These contradictions propose that some students might endure extraordinary difficulty in acquiring a consistent *v/f* distinction in non-controlled phonological environments as it is the case with MMRPGs.

### Conclusions

The study cannot claim full credit for these enhancements in Saudi EFL students at KSU-COLT. It was short-term, and the students had only two periods each week, all of which must claim some credit for the increase in this course periods per week. The effect of pedagogical interventions may not be visible in a single semester. In particular, enhanced learning performance resulting from different types of instruction would be visible only after a relatively prolonged period of time (Felix, 2005). A longitudinal approach would allow a deeper understanding of the learning platform investigated (Chapelle, 2001b). This area should be considered for further study with a larger number of students. The limited number of participants in this study was due to the limited capacity of this version of online games, and the requisite of a certain level of online playing skills, in addition to the low number of students already registering in this course. Still, the enhancement observed indicates, hopefully, a very positive approach to enhance pronunciation particularly in English integrated courses and more precisely in listening and speaking skill courses of English. Recognizing the small size of the group immersed, caution must be considered not to over generalize the abovementioned findings. However, some emerging implications from this experiment can be summarized as:

1. The first- and second-week learners had slightly higher problems with the [v] phoneme in the initial position preceding a vowel and in the final position preceded by either a vowel or consonant.
2. Subjects during later weeks (third- and fourth-week students) showed obvious declines in mispronunciation of the [v] phoneme at the medial position, and the initial position where these phonemes occur before vowels. Nevertheless, the decline is less dramatic for /v/ where it occurs at the medial position before vowels.
3. As mentioned earlier, relatively high percentage of subjects mispronounced the [v] when it occurs finally is followed by consonant as in *lovely* [lʌvli], most of the subjects made at least one mistake in pronouncing this consonant-cluster pattern. Arishi (1990) provided possible explanations, "failure to differentiate between voiced and voiceless consonant clusters, which

occur in Arabic infrequently" Thus, English clusters with a minimum of one voiceless member seem to be a problem for Saudi Arab EFL learners.

In addition to the previously mentioned potentialities, the substitutions of [f] for [v] may be attributed to native language interference. Weakening or producing voiced intervocalic consonants such as the English [l] is one example of native language interference of the EFL Saudi learners. Thus, the subjects were confronted with a new phoneme followed by a new allophone.

3. Some subjects pronounced the [v] in words, such as *visitors*, correctly while being immersed in one online game, but surprisingly enough pronounced the same words incorrectly while being immersed in different stages of these online games. In fact, some subjects pronounced these sounds sometimes correctly and sometimes incorrectly in different places while immersion within the same online games. These observations might reinforce the concept of phonological variability with additional amendment that the degree of immersion in virtually simulated situations and the degree of student's excitement can also affect phonological variability.

To conclude, the position of the English phonemes [v] and [f] within a word affects the pronunciation of Saudi EFL learners. However, interaction via immersion in virtual platforms such as MMORPGs is suggested to have improved the students' mispronunciation of English words containing these phonemes. However, more remedial phonological drillings via such platforms are recommended for more accurate pronunciation of these phonemes with greater emphasis on their positions within words since some positions constitute more difficulty to Saudi EFL learners. Overcoming this difficulty will hopefully enhance Saudi EFL learners' pronunciation of English words having the /v/ phonemes. Finally, immersion of EFL learners in virtual platforms with language teachers and/or native speakers of English can be introduced to the remedial phonological drillings.

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Appendix A: Sampling Surveys

Name: \_\_\_\_\_ Nationality: \_\_\_\_\_

Date of Birth: \_\_\_\_\_ Country of Birth: \_\_\_\_\_

**1. When and where have you studied English other than school and university?**

Date	Institute/school	Location	How long	Hrs/week

**2. How much time (hours per day) do you spend**

**a) listen and speak in English (e.g. online games, youtube, snapchat, instigram, English TV channels ..etc?)**

- ( ) none      ( ) less than an hour      ( ) less than 2 hrs      ( ) less than 3 hrs  
 ( ) less than 4 hours      ( ) less than 5 hours      ( ) more than 5 hours

**b) play MMORPGs Saudis or Arabs?**

- ( ) none      ( ) less than an hour      ( ) less than 2 hrs      ( ) less than 3 hrs  
 ( ) less than 4 hours      ( ) less than 5 hours      ( ) more than 5 hours

**c) play MMORPGs with English speakers?**

- ( ) none      ( ) less than an hour      ( ) less than 2 hrs      ( ) less than 3 hrs  
 ( ) less than 4 hours      ( ) less than 5 hours      ( ) more than 5 hours

**3. have you been to an English-speaking country(s)? Yes \_\_\_\_\_ No \_\_\_\_\_ If yes,**

What was the country? \_\_\_\_\_ When \_\_\_\_\_

How long did you stay there? \_\_\_\_\_

What was the reason?

Appendix B: The Students' Consents to Participate in the, Surveys and Experiment of the Study

YOU HAVE AGREED TO PARTICIPATE IN THE SURVEYS AND EXPERIMENT IN THE RESEARCHER'S STUDY TO HEPL HIM COLLECT DATA ON HIS STUDY ABOUT MMORPGS' EFFECT ON PRONUNCIATION OF EFL STUDENTS OF THE LANGUAGES &TRANSLATION COLLEGE AT KING SAUD UNIVERSITY

You will be recorded for research purposes, but you will remain anonymous. Students will benefit by immersing in online games to enhance their pronunciation in English. This benefit is not limited to the students of this course but may also benefit other students in the future. The data collected in this experiment will be used in the research and it may be used in publications and/or conference presentations with no monetary compensation to you now or in the future. The recordings will be destroyed upon the completion of the study.

By signing this consent form, you are demonstrating that you have read all the information above and that you have agreed to be recorded. There is no risk to you by participating in this research. Please contact ALQAHTANI, SHAFI, SAAD; the researcher at (+966) 5050\*\*\*\*\*

Participant's Signature      Printed Name      Date

Researcher's Signature      Printed Name      Date

Appendix C: A Sample of Online Games' Contests Held by the Student Activities Committee at the Colt-KSU



كلية اللغات والترجمة  
College of Languages and Translation  
جامعة الملك فهد للبترول والمعادن

# بطولة البلايستيشن

شارك التحدي والمنافسة على بطولة البلايستيشن  
التسجيل في مقر الأنشطة بالكلية الدور الأول ١٠٥٠  
سوف تكون هناك جائزة مالية للمركز الأول



**تبدأ البطولة**  
**يوم الاثنين ١/٢٠**

فترة التسجيل، ١/١٦-١/٢٠

سوف تكون اوقات المباريات من الساعة ١٢ - ١ ظهراً  
والمسابقات المتأخر ١٠ دقائق سيعتبر منسحب