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**Abstract:**

Due to the technological advance that has swept our societies, students have become more and more engaged with new burgeoning technological tools such as computers, cell phones, iPods, digital cameras, and the like. As a result, the disparity between what students do inside school and what they do at home has grown wider. Buckingham (2007) refers to this gap as the ‘new digital divide’. In this research paper, I set out to investigate how digital technologies mediate a group of Al Ittihad Model School (AIMS) students’ literacy practices outside of formal academic settings by investigating their online life and engagement with one contemporary ‘semiotic domain’: Massively Multiplayer Online Role-Playing Games (MMORPGs). I will approach the topic from the perspective of an ESL teacher to shed light on the definition of MMORPGS and focus my discussion on a particular game named *World of WarCraft*. I will also discuss the effects of this game on my subjects in as far as forms of learning and social interaction are concerned. Criticisms and new trends in the field of online gaming will be briefly reviewed throughout the paper.

## What Children Can Learn From Playing MMORPGs

*“Whenever one plays a game, and whatever game one plays, learning happens constantly, whether the players want it to, and are aware of it, or not. And the players are learning “about life”, which is one of the great positive consequences of all game playing. This learning takes place, continuously and simultaneously in every game, every time one plays. One need not pay much attention” (Prensky, 2002:1).*

### **Introduction: Literacy in the Information Age**

The enormous changes in communication and related social practices bear witness to the fact that “we are in the midst of one of the most dramatic technological revolutions in history” (Kellner, 2002:90). The ubiquity of new digital technologies, the modern means of communication and information transmission, the screen-induced nature of contemporary society, to name but a few, all coalesce to suggest that the world we dwell in today is no longer the world we used to inhabit a few years ago. Makin and her colleagues (2007) posit that the move from the industrial age to the information age has had great impacts on literacy teaching and learning. This resonates powerfully with Kress’s (2003) claims pertaining to the shift from the supremacy of the text-based medium, the book and the page, to the supremacy of the screen, from the site of writing to the site of the image, thus leading to what he refers to as “an inversion in semiotic power” (Kress, 2003: 9). As a result, multimodality has supplanted unimodality in such a way that we now need to rely on spatial and visual modes together with linguistic ones to “explore ... various aspects of the Design process” (Chandler-Olcott & Mahar, 2003: 360) and work out text meanings.

The new digital technologies have not only brought about tremendous changes in people’s lives but also yielded an overwhelming urge to reconfigure the notion of literacy. On one level, they have resulted in a sharp dichotomy between the world of youth and that of adults. Prensky (2001) refers to those who were born and grew up in a digital world as ‘digital natives’ and those who lived in the pre-digital age as ‘digital immigrants’. He maintains that it is really hard for digital immigrant instructors who speak an outdated language to teach a tech-savvy population that speak an entirely different language. On another level, the inability of most educational policies and practices to meet the needs of digital native students has widened the

gap between what children do in school and what they do in their leisure time, thus creating what Buckingham (2007) refers to as ‘the new digital divide’. He affirms that although the effect of modern media technology inside schools is quite negligible, its impact on children’s life outside school is huge. On still another level, the old concept of literacy is embraced as “a set of skills, consisting almost exclusively of the ability to read and write in a ‘basic’, mechanical sense of these words” (Carter, 1995:98). This old definition of literacy is nowadays being challenged by many scholars. Meek (1991), for instance, posits that “literacy is not what it was” (cited in Marum, 1996: 49). Also, Carrington and Marsh (2005) affirm that the new world we live in today warrants “an expanded notion of text and literacy” (p. 279). In the same vein, the New London Group stipulates that we should go beyond print literacies towards an acceptance of multiliteracies or an acknowledgement that “the textual is also related to the visual, the audio, the spatial, the behavioral, and so on” (NLG, 1996: 64). This clearly suggests that learning new literacies can include “learning to blog in a new environment, appreciate and/or create graphics-driven texts (Anime, comics), or even play a video game” (Carter, 2008: 91). From this standpoint, video games, which are viewed by Gee (2001, cited in Beavis, 2007: 4) as intellectually challenging ‘semiotic domains’, “should be understood as communities of practice with their own, very specific roles for literate behavior” (Carter, 2008: 91). As mentioned earlier, this kind of learning is often undertaken by students in non-formal contexts because current curricular do not embrace these new literacies.

I am undertaking this research study because I think that out-of-school literacy is an interesting area to explore. Jimenez (2003) defines it as a treasure trove of experiences and information with benefits for both the students and their teachers. I strongly believe that good teachers are those who use their students’ digital ‘funds of knowledge’ (Kerkham & Hutchinson, 2005) effectively to explore new situations that would help them improve the literacy learning of their students.

In this research paper, I set forth to investigate how digital technologies mediate a group of Al Ittihad Model School (AIMS) students’ literacy practices outside of formal academic settings by investigating their online life and engagement with one contemporary ‘semiotic domain’: massively multiplayer online role-playing games (MMORPGs). I will approach the topic from the perspective of an ESL teacher to shed light on the definition of MMORPGS and focus my discussion on a particular game named *World of Warcraft*. I will also discuss the

effects of this game on the subjects in as far as forms of learning and social interaction are concerned. Criticisms and new trends in the field of online gaming will be briefly reviewed throughout the paper.

## **1. Background and Context of the Study**

Makin and her colleagues point out that “there is now extensive evidence that children participate in out-of-school literacy activities in great frequency” (Makin et. al, 2007:25). However, these new literacies remain “with an untapped potential for formal educational use” (Gibson et. al, 2006:1), and rarely does the curriculum of any country acknowledge students’ engagement with new technologies and media texts as their immediate outcomes (Carrington & Marsh, 2007). In an effort to lessen what Buckingham (2007) refers to as ‘the new digital divide’ – the gap between what students do in school and what they do outside of regular school hours, many scholars stress the importance of expanding and reconceptualizing literacy. They suggest that an expanded definition of literacy has become more of a necessity than a luxury to include the multiliteracies that the majority of students experience out of school (Marum, 1996; McInerney & Etten, 2004; Carrington & Marsh, 2005). Beavis (1988) insists that “the new literacies need to include the capacity to ‘read’ and ‘write’ the new technologies, and to understand what is entailed in the operation, reception, and production of their texts” (cited in Tomlinson, 2003: 229).

In an effort to see how much of what has been discussed above is applicable to the context where I work, I asked some students to fill in a questionnaire and conducted informal interviews with them to collect my data. The data I have gathered confirm that out-of-school literacies are not bridged with classroom practices. The objective I want to achieve by undertaking this study is to work these literacies into the curriculum in an endeavor to promote my students’ school-based literacy.

## **2. Student Questionnaire**

The Internet Use and Online Gaming Questionnaire sought evidence of students’ out-of-school technology-mediated literacy practices. The questionnaire was distributed to 100 male students studying at Al Ittihad Model School for boys (AIMS) in Abu Dhabi, UAE. The students who filled in the questionnaire belong to different grade levels: ten, eleven, and twelve. As

expected, nearly all students (97%) had Internet access at home, with 95% of them having broadband access and the remaining 5 % dial-up access.

The frequency of Internet access varies from one student to the other, but overall, the sweeping majority of them, (82%), are daily online users. Fig. 1 represents the rate of Internet use among students of AIMS.

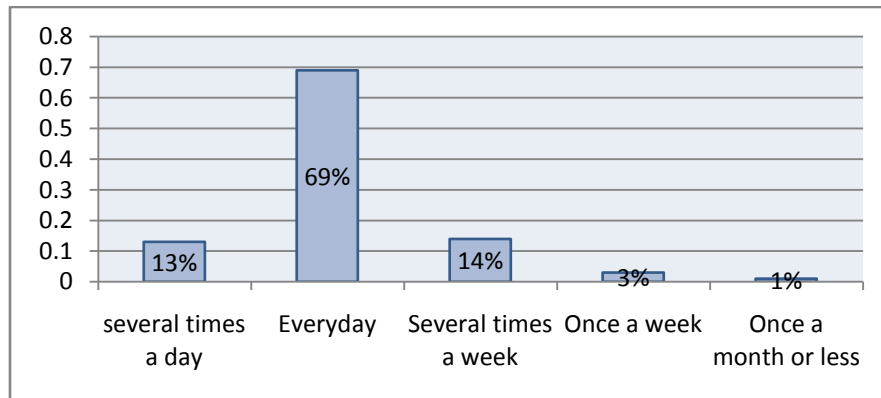


Fig. 1: Student Internet Access Frequency

The worldwide tendency of students to go online has been reflected in many studies. In Australia, by way of example, it was reported that 85% of children accessed the internet at home in the year 2006 (ABS, 2006:10). Similarly, 75 % of UK children were reported to have accessed the Internet from a computer at home in the year 2005 (Livingstone & Bober, 2005: 2).

Most of the students, (70%), in AIMS consider the Internet very important in their lives (Fig. 2). The percentage of those who regard it as not very important is really negligible, 3% only.

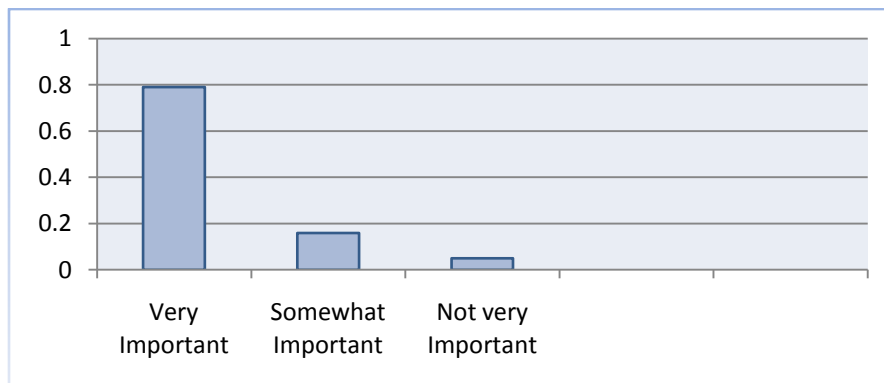


Fig. 2: Students' perception of how important the Internet is

The importance of the Internet in students' lives emanates from the diverse services offered by the web which are appealing to nearly all teenagers. Students in AIMS go online for a variety of reasons, detailed in the chart below (Fig. 3).

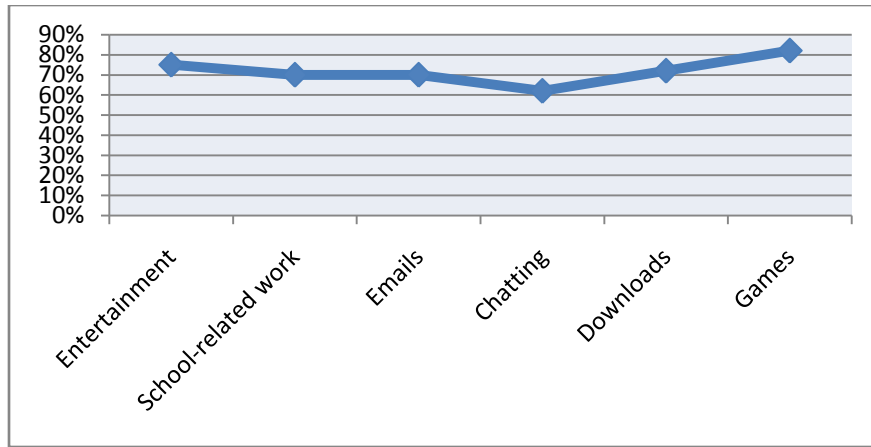


Fig. 3: Students' reasons for going online

The graph above clearly suggests that playing online games is the most appealing Internet activity, (91%), among AIMS students. Statistics that reflect young people's engagement with online games are thick on the ground. For instance, around 71% of Australian children aged 5 to 14 were reported to play online games in the year 2003 (Beavis, 2007: 3). Beavis (2007) affirms that "figures on the popularity of computer games are breathtaking, with games sales exceeding Hollywood box office and player numbers running into the millions" (p. 2).

Question 7 in the Internet Use and Online Gaming Questionnaire investigated the game genres students in AIMS engage with (Fig. 4).

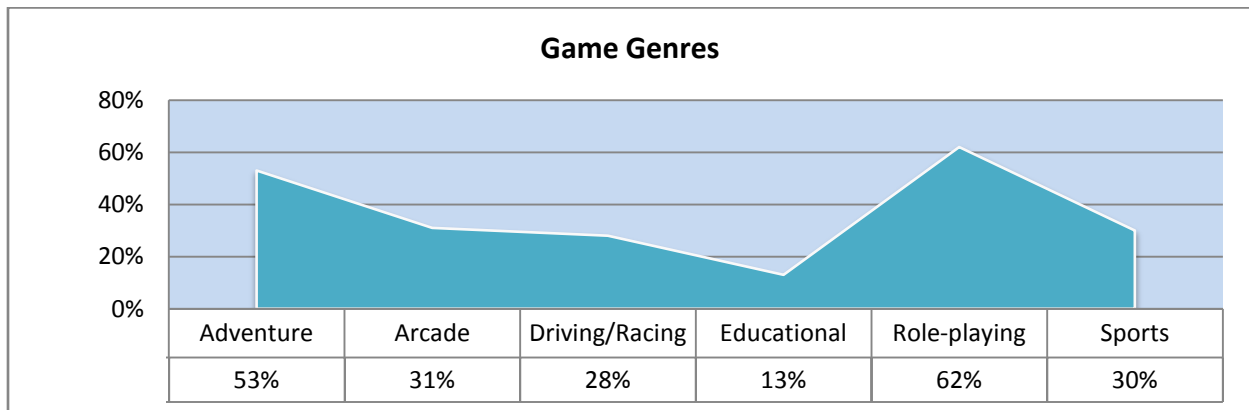


Figure 4: Game genres taken up by students of AIMS

It seems that educational games have lost their appeal among most of the informants. They have surrendered their place to massively multiplayer online role-playing games, which "have become so popular because of their role-playing aspects" (Holt & Kysilka, 2006:200).

That students play a wide variety of MMORPGs is detailed in the chart below. It is clear that the most appealing game to the students is World of Warcraft (WoW), with 35% of the students playing it. Some students indicated that they played more than one game at a time.

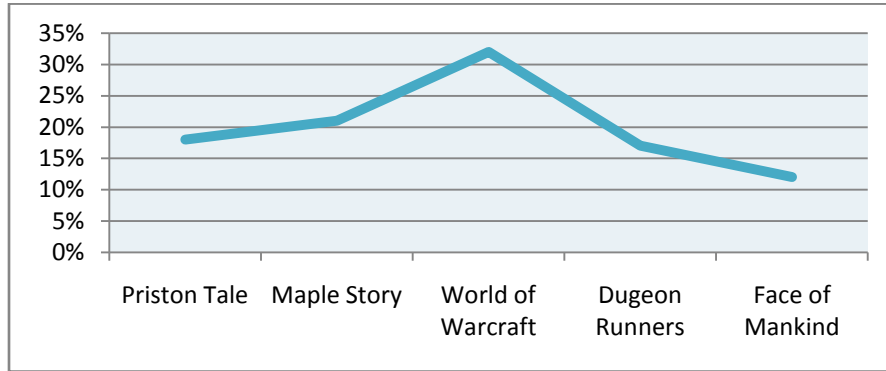


Figure 5: MMORPGs taken up by students of AIMS

Question 9 of the questionnaire investigated the number of hours spent weekly playing MMORPGs. To my surprise, the vast majority of the students spends an inordinate amount of time playing games, and therefore can be easily labeled as excessive game players. One student reported that he spent more than 75 hours per week, with an average of 11 hours per day! It can also be seen that moderate game players represent only a minority, 24%.

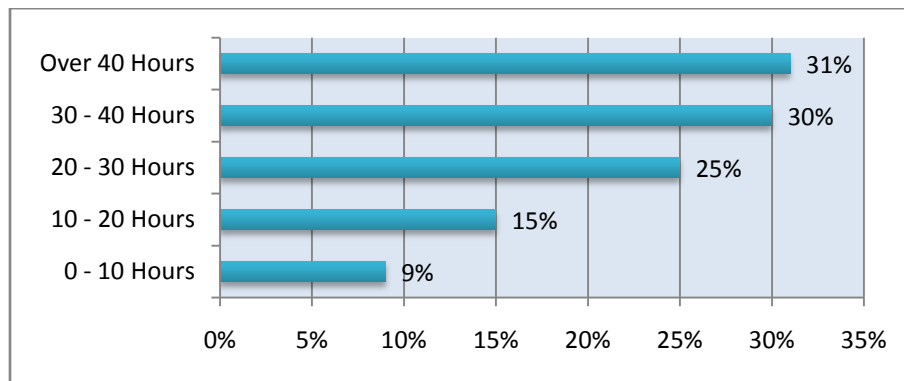


Figure 6: Number of hours spent per week playing MMORPGs

When we look at the inordinate amount of time spent playing MMORPGs, a wide range of focal questions arise. Why do MMORPGs conjure up a spectacular gaming experience for most of the students? Why is it that they allow their real world to be colonized by the virtual one (Ito, 2005)? Would it not have been better if this excessive amount of time had been spent on school-related and print-based literacy activities? Would it not have been better if this amount of

time had been spent socializing with peers and family members and fostering offline relationships?

Answers to these questions are not possible unless we gain a fertile understanding of what MMORPGs are, what perceptible affordances and constraints they have, and what opportunities they offer to those who engage in the online virtual gaming world.

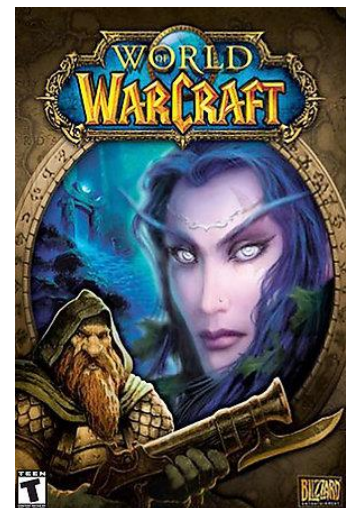
In this section, I will narrow down my focus to a particular game which falls in the category of MMORPGs, World of WarCraft (WoW). I will give a brief description of this game that uses up a great deal of my focus group's out-of-school time, then write a detailed account of how the subjects engage with the game.

### 3. World of WarCraft: Game description

World of Warcraft, known as WoW, is a popular massively multiplayer online role-playing game developed by Blizzard Entertainment. The game can host millions of networked players. It offers them the opportunity to step into the world of Azeroth through undertaking quests, adventures, and exploits in expansive 3D environments with different visual styles that range from mountains, to deserts, to forests and more.

There are ten races and nine classes in the game. The players' character choice is based on the faction they wish to fight for. They can join either the Horde or the Alliance, and their choice will have an impact on what they can and cannot accomplish in the world.

Using the in-social commands, players fighting for the same faction can group, interact, and befriend. This makes players belonging to the same faction feel like members of one enormous team, while setting up the other faction as the enemy. The Horde faction involves the orc, tauren, troll, blood elf, and undead races, while the Alliance faction is composed of dwarves, gnomes, humans, draenei, and night elves.





After character creation, players watch a brief in-game cutscene introducing their race. When the cutscene is over, players are set loose upon the world. They advance in level as they gain experience which can be gained by killing monsters, exploiting new destinations, and completing quests. What is so special about quests is that they reveal fantasy or science-fiction based stories. Players may want to play in story mode to explore the story narrative structure and collect cash, food, magic items, armor, and weapons.

The game's interface allows players to determine from a quick mouse-over what something is and how they can interact with it. The mouse pointer, for instance, can turn into a chat balloon letting players know that they can chat, or into a sword showing them that they can attack.

WoW is built to facilitate extensive in-game socializing. It allows players to look for other players by names or by looking for those who are in the same zone. There are many quests which are designed to be accomplished with other players, so seeking out the help of other characters is sometimes required.

#### **4. Interviews with the students**

I worked with a group of five students ranging from moderate to excessive game players. All the students are UAE nationals who belong to different grade levels: three students from grade ten, one student from grade eleven, and another student from grade twelve. The subjects have many things in common. They are close friends, share almost similar hobbies, and play the same game: World of WarCraft. They play the game at home on a daily basis, but at the weekends they choose to play it together in an Internet café.

##### **4.1. Why they enjoy playing WoW**

I have learnt through my interviews with these students that they play the game for a dazzling array of reasons. They find the game tremendously engaging and absorbing. "Once you start playing WoW, you will become hooked on it", says one of the subjects. Besides, they enjoy the social aspects of online gaming and relationship-building in WoW. The fact that they are able to immerse themselves in a fantasy world where they can interact and cooperate with other coplayers to achieve a common goal is appealing to them. They assign their characters different roles and use them to try out new identities and accomplish various missions. Moreover, they find WoW quite challenging. They like all the challenges posed in the game and their

progression through them. Being able to handle difficult situations gives them a sense of achievement and consequently raises their self-esteem.

Competition also ranks high among the reasons why my focus group plays WoW. The game puts the subjects into competition. To maintain a sense of heated competition, they create certain quest missions that have to be accomplished within a certain period of time. The loser gets 'beaten up' by his friends or is mocked at the best of times.

#### **4.2. What they think is positive about WoW**

The subjects have positive attitudes towards playing WoW. The learning that takes place through a non-formal route together with the knowledge and skills that are acquired put WoW at an advantage over many other games. The students state that they now have a better command over English thanks to playing MMORPGs in general and WoW in particular. They also indicate that the game has helped them to build up online relationships, thus throwing the common assumption that game players are "quite isolated, grinding away with a hyper-focused efficiency out of sight from other players" (Taylor, 2006:80) into question. Almost all of them have made friends with people from different parts of the world, forming what Beavis (2007) refers to as "a group united by the culture of the game" (p 7). What's more, they stated that they acquired many computer skills. Worth noting is the fact that the subjects talked only about the learning that took place consciously. What has been learned subconsciously was not mentioned because they were not aware of it.

#### **4.3. What they think is negative about WoW**

There was a low degree of unanimity over the negative effects of game playing. One of the students in my focus group who has recently quit playing the game stated that World of WarCraft had had negative effects on his academic achievement. His claims resonate with those of Vorderer and Bryant (2006) in that playing video games resulted in addictive behaviors hence bringing about a number of pernicious outcomes such as squandering money and a lack of socialization opportunities inside and outside the family circle. On the other hand, another student tended to disagree with his friend. He stated that the only negative effect that WoW has had on him was his eyesight. As for the other students, they all agreed that the game had effected their academic achievement negatively, except for English of course.

## 5. Discussion

Parents and educators have been suspicious about video games since their first coming into existence in the 1970s. Some still perceive them to be “filled with images of game players caught in a ‘mindless addiction’” (Wardrip-Fruin & Montfort, 2003: 34). According to them, children do not “learn anything beyond hand-eye coordination from the thousands of hours they spend playing video games” (Prensky, 2002: 1). They think that children are merely immersed in a virtual world that does not relate to their real world. They assert that while these children “may learn about the game, they learn nothing useful about their real life” (Ibid). In most cases, the focus has always been on the pernicious effects video games have on children and young people rather than on their potential benefits. In her book *Mind and Media*, Greenfield (1984: 2) expresses the growing unease about video games. She posits that

in the past few years a new medium has come along to fascinate young people and worry their elders: video games. Some adults fear that, even more than television, the games are at best frivolous and at worst mindless, numbing, and violent.

On the other hand, many researchers (Prensky, 2002; Gee, 2003; Lankshear & Knobel, 2003) maintain that video games are powerful learning tools which provide meaningful and fun opportunities for children to learn outside school. By initiating children into the gaming culture, we can encourage their “imagination, problem-solving skills, [and] positive engagement with computers” (Sanford & Madill, 2007:437) and help them develop “leadership, competition, teamwork, and collaboration” (Jenkins, 2000: 120).

Prensky (2002) draws a clear distinction between a game’s surface content “represented in its graphics, audio, and text” and “a game’s underlying messages and required skills” (p. 1). He argues that a great deal of powerful and useful learning occurs in spite of the game’s surface content. He identifies five levels in which learning about real life takes place in video games. These are the ‘*How*’, ‘*What*’, ‘*Why*’, ‘*Where*’, and ‘*When/Whether*’ levels of game learning. He holds that these five levels apply to all games. In what follows, I will turn to *World of WarCraft* to show what my subjects are learning from it in as far as Prensky’s (2002) five levels of game learning are concerned.

### **5.1. Learning at the *How* level**

Based on my own observations of the subjects while interacting with WoW, I have noticed that a huge amount of learning is taking place at the *How* level. They learn how to create a character, change its look, control it, care for it by ensuring the latest up-to-date food and water, and upgrade it to accomplish various quests and missions. At another *How* level, they know how to find their way around the huge world of WoW by effectively using a map and compass. They also learn how to make use of WoW's Menu Options to gain more control over their characters. At still another *How* level, they learn how to behave in a world where it is really hard to survive, where failure should never be picked as an option, and where cooperation is a must to defeat the enemies.

### **5.2. Learning at the *What* level**

At the *What* level, my subjects learn the rules of the game through the trial-and-error process. Through this problem-solving process, they “can see the effects of their choices, understand the importance of process in making decisions, and recognize the kinds of practical dilemmas they may experience (Ware & Brewer, 1998:133). At this level, they learn what the potentials and limitations of their characters are. They learn, for instance, that they cannot defeat a stronger enemy until they level up. To level up as quickly as possible, they learn how to change the rules of the game using “cheat codes”. They conduct a search about the available add-ons that they can get for the game. After downloading the required add-on pack, they run it alongside the game of WoW. Dondi and his colleagues (2004) hold that “the use of cheat codes allows players to experiment, to challenge the rules, to understand what's acceptable and what is not, [and] to see what works and what does not” (p.43). They also learn what equipment they already have and what equipment they do need before setting out on a quest. Moreover, when they step into the Auction House, they learn what equipment to buy at the best prices. If they do not have enough money to buy what they need, they have to make decisions about what items to sell in order to buy new ones.

### **5.3. Learning at the *Why* level**

At this third level of game learning, “players learn the *strategy* of a game as they play it” (Prensky, 2002: 5). Since successful play requires them to develop certain strategies and tactics,

the students in my focus group learn that they need to devise a plan of attack that will tell them what quests to get, where to get them, and where to go next in order to win the game. More often than not, the strategies students employ “are based on real life concepts, thereby providing real life lessons” (Dondi et al., 2004:44). They also learn that they sometimes need to challenge characters to a duel, and other times they need their cooperation to accomplish certain missions. Besides, they also learn that they have to desist from dueling characters which are stronger than theirs. In that case, they should never throw the gauntlets when challenged. Instead, they should work on upgrading their characters by equipping them with better weapons.

#### **5.4. Learning at the *Where* level**

The *Where* level is the ‘context’ level of the game. While playing WoW, students learn about the world in times of war. They become aware that the fantasy world they are immersed in is closely related to the physical world they dwell in. They learn about the lifelong struggle between good and evil epitomized in the game through the Alliances and Hordes. They learn their cultural ideas about courage, leadership, achievement, etc. They also learn that they are agents of change and shapers of the world since they have full control over the lives of their characters within the game.

#### **5.5. Learning at the *When/Whether* level**

At the *When/Whether* level, “game players learn to make value-based and moral decisions – decisions about whether doing something is right or wrong” (Prensky, 2002: 7). At this level, my subjects quickly learn that success is difficult yet achievable *if* they have made the right choices throughout the game. They also learn that *when* they share the same purpose, values, and ideals, they can defeat the enemy which is epitomized in the Hordes. They also learn that this victory would have been impossible if they had not effectively cooperated with other game players.

#### **5.6. Negative aspects of video games and how to overcome them**

Because the virtual spaces created by MMORPGs can be inhabited by millions of people simultaneously, these gaming environments have the potential of providing children with many learning and socialization opportunities. However, some critics tend to disagree with the idea

that the learning which takes place when children play these games is positive. Prensky (2002) sums up their concerns as follows:

At the *How* level, these critics think that children “are learning how to do ‘inappropriate’ things” (p. 12). At the *What* level, they think that the rules governing the game are too restrictive and do not allow children to be neither imaginative nor creative. At the *Why* level, they are concerned that the strategies children use to win the game involve “too much violence, too many ‘cheats’, and other ‘undesirable’ elements” (p. 13). At the *Where* level, they think that children are being encouraged to be loners and “social deviants” (p. 13). And at the *When/Whether* level, they are concerned that children leave the game with the message “I’ve got to run out and do this” (p. 8).

In an attempt to fully tap the potential of video games, I think that game developers should work hard on creating video games the content of which has a more educational significance. Also, we should not ignore the guiding role of parents in making informed choices about what game genres are appropriate for each particular child. Moreover, Parents should pay attention to the amount of time their children spend playing video games and, if possible, monitor them while playing these games.

### **Conclusion**

As a result of the rapid technological development sweeping the recent decades, “the new nature of literacy has been subject to interrogation and uncertainty” (Larson & Marsh, 2005: 99). A good number of educators have conducted research to explore in depth the opportunities presented and challenges posed by this new media age. The aim of the case study I undertook was to investigate why some of my students actively engaged in video game play and what kind of learning occurred while interacting with this particular semiotic domain.

That a huge amount of learning takes place when children play video games is a fact that should not cause a lot of disagreement (Prensky, 2002). Even though some video games might have negative effects on children, one should be objective enough to perceive that the positive effects largely outweigh the disadvantages. Sanford and Madill (2007) maintain that “video games are one of the new literacies that offer powerful learning” (p. 452). Therefore, focusing only on the negative effects of video games will divert our attention away from the really

important and useful question: How best can we implement video games to help children learn what we want them to learn?

The incorporation of video games into the learning environment will certainly make the learning experience more enjoyable hence more effective. Prensky (2001) holds that learning is enhanced whenever high engagement is involved, hence he suggests “‘digital-game-based learning’ which has potential for achievement of the necessary ‘high learning’ through ‘high engagement’” (Gibson et al., 2006). Game developers, with the help of educators, can develop games in the formats of different kinds of electronic tools that suit every student's needs (Dondi et al., 2004). Last but not least, an effective pedagogy that embraces the new technologies and values the learning from video games should become a necessity if we are to bridge the gap between out-of-school literacy practices and in-school literacy instruction and develop a common language between digital native students and digital immigrant instructors.

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