ILLUMINATING ‘SECOND LIFE’S BENEFITS AND CHALLENGES AS AN INTERACTIVEBLENDED VIRTUAL LEARNING PLATFORM FOR ENGLISH LANGUAGE TEACHING AND LEARNING

Riad F. HASSAN
Hisham DZAKIRIA
Universiti Utara Malaysia, MALAYSIA

Rozhan M. IDRUS
Universiti Islam Malaysia, MALAYSIA

ABSTRACT

The advancement and innovation on learning technology such as 3D virtual worlds offers new opportunities for teaching and learning languages. Learning English as a foreign language like many other foreign languages possess as a challenging task to teachers and students. Virtual World such as Second Life (SL) functions as a global platform potentially can become a powerful tool in learning and teaching of English as a foreign language due to its immersive and interactive environments. Its interactive interfaces provide students with realistic experiences and simulated everyday situation in 3D virtual worlds for more authentic and physical practice that would enhance students’ awareness of the target culture, knowledge construction and learning.

This paper highlights the benefits and challenges associated with Second Life as an educational tool in EFL classroom. Specifically, this paper is intended to review Second Life potential in virtual learning and its affordances offerings to enhance EFL which produces the motivating factor towards a doctoral study on Second Life and its potential to offer a fun-engaging-inviting learning of the target language never envisioned or made possible in the conventional classrooms.

Keywords: Second Life; English as a foreign language (EFL); Information communication technology; virtual world; 3D;

INTRODUCTION

Like many Middle Eastern countries, English language is a mandatory course taught as a foreign language in Iraq. The intention has always been to educate and improve the students’ proficiency and competency in the language.

Nevertheless, similar to any other countries where English is not a native language, English language education in Iraq too comes with many various issues and challenges (Al Hosni, 2014).
Today, Information Communication Technology (ICT) and advancement in educational technology play an imperative role in facilitating and enhancing the effectiveness of language learning and teaching process (Montazeri & Hamidi, 2013).

Computer Assisted Language Learning (CALL) requires applying the principles of computer-assisted language learning to language learning context. It employs the advancement of technological software and programmes to improve learning experiences and outcome (Ifeoma, 2010). The literature has shown that there are many various researches on CALL that has been pursued and completed. Like many other subject matter, new research on CALL is a continuous effort.

The research focus has progressively changed from one aspect to another. The latest area of research interest has been on virtual learning and how such environment could enhance learning and teaching. Virtual learning offers the possibility for learners not just to collaborate and interact with other learners, but an opportunity and possibility to engage and interact with native speakers of English language even without having to travel thousands of miles to be in English language native land like the Great Britain, United States of America, New Zealand, Australia, and others (Hamidi, Montazeri, Razavi, & Aziznejed (2014).

The digital age, and the advancement of educational technology has continuously create and change the learning and teaching method and making what was impossible many years ago a possibility today.(Esteves, Fonseca, Morgado, & Martins, 2011).

Virtual reality is a combination of Virtual World and reality to create a simulated dynamic process which allows multiple users to learn and interact with each other in computer-simulated environment. There are various technology that offers virtual learning.

This paper focuses on Second Life (SL). It is the most common multiuser virtual platform that has been used for learning. Since Linden Lab released “Campus: Second Life” in 2003, many educational institutions and universities have built or prescribe their own virtual land in Second Life to provide students opportunity to practice and improve their language skills such as the Harvard, Princeton, Drexel, Ball State, Stanford, Ohio, and Bowling Green State due to its capabilities for communication and interaction as well as its affordance of immersive simulation(Schiller, 2009;HismanogluI, 2012).

The incorporation of virtual reality technology with Second Life into language learning curriculum does not only offer real-life audiovisual simulations, but also integrates both the virtual and real-life learning environments to promote interaction and learning engagement. The symbiotic relationship encourages learning, and makes English language teaching and learning much more inviting, exciting and promises more success (Chung, 2012).

The virtual leaning environment provides learners with a sense of being there, a new avenue towards successful learning of the target language.
It offers more opportunity to learn the target language with native like inputs; provide a much secure environment to engage and practice the target language without having to worry making mistakes, or being laughed at, and others factors that may prohibit participation. It is due to such prospect that this paper focuses on Second Life, and is intended to describe its enormous prospect, benefits, and challenges in the teaching and learning of English language as a foreign language (EFL) classroom. With such an enormous opportunity, this paper also suggests the importance of future research on Second Life as such advancement in technology could provide a game changer on how English language could be taught and learned in the future.

UNDERSTANDING VIRTUAL WORLDS

Virtual Worlds (VWs) is not a new concept of now words. It was introduced and has come in different forms since 1980s. Nevertheless, until today, there is no single and consistent definition for Virtual Worlds that everyone accepts.

Virtual world can be defined as a computer based online simulated environment in which users (avatars) can shift and interact with each other by tools of integrated voice chat, text chat, group chat and other way of communication (Dickey, 2005).

Duncan, Miller and Jiang (2012) defined virtual world to include any online virtual environment that allow users to learn, player interact with others. In addition, Bell (2008, p.2) inserted that virtual world as “synchronous, persisted network of people, represented as avatars, facilitated by network computers”.

Achieving common objectives such as making teaching and learning more interactive, engaging, collaborative is never an easy task to complete. Such attainment has always been set as educational goals and objectives of educational providers in the past, and still is in our presence time.

One particular technology that provides unique learning and teaching opportunities is the 3D Virtual World which offers common space for users to interact and create an environment that support more meaningful learning (Eschenbrenner, Nah, & Siau, 2008).

The term Virtual World offers a new learning and teaching potential, but one with much ambiguity as evident in the literature. Grant & Huang (2010) for example described Virtual World as an umbrella term that can refer to over 250 Virtual World platforms such as Croquet, Second Life, Exit Reality, Active World, Quest Atlantis, World of Warcraft, etc. Indeed, each platform has their own affordances and limitation based on the platforms offerings and limitations.

In addition to the ambiguity issues, Virtual World is also often referred to other words that are thought to be synonymous to VW. These include: Massively Multiplayer Online Role-Playing Games (MMORPG), and MUVE (Multi-User Virtual Environment). Similar to Second Life, all of these terms have an online presence and could be used for learning, teaching playing, or socializing.
VIRTUAL WORLD IN TODAY’S EDUCATIONAL LANDSCAPE & ENVIRONMENT

The use of Virtual World has received much attention and is increasingly favored as a powerful tool, and alternative to conventional ways of teaching and learning in education. Virtual World for example provides greater opportunity for open distance learning programs offering access to real-time communication and collaboration (Haycock, & Kemp, 2008; Mabrito, 2012). Learner interaction in 3D virtual environment is much more dynamic; the users have a representation or embodiment through the use of avatars.

The avatars are the users’ representations which see the possibilities of communicating, showing real emotions, and still be control as if the users are in real time (Fowler, 2014). In addition, users (teachers, tutors and students can also immerse in an environment which is created by other avatars for the purpose of reproducing an original location (Gaukrodger & Atkins, 2013).

In that sense, (Dickey, 2005) maintained that VWs provide sites which creates an interactive learning environment that is current trend being reinforced by the increasing transfer to constructivism which is based the idea that knowledge is constructed by learners through negotiation and collaboration (Vygotsky, 1978). Therefore, VW can support constructivist learning due to avatars are able to interact and collaborate with one another within environment.

In this regards, some studies have offered the functionalities, general characteristics of virtual worlds and their potential benefits for learning and teaching.

To date, there are many benefits. These include:

- they are synchronous,
- they are facilitated by networked computers,
- they offer navigational space,
- they provide communication facilities,
- they support multimedia presentation and playback,
- they provide the creation and manipulation of avatars,
- they are persistent, immersive and highly-interactive (Kallonis & Sampson, 2010). Due to such possibilities Jung & Pawlowski, (2014) reported that there have been more than 1.4 billion registered users in 2011, and that such statistics only grow with time.

Consequently, there have been various 3D virtual world environments that have been adopted and used in today’s education sector. For instance, SL launched in 2003, is the most common Multi-User Virtual World platform used in education. SL is fundamentally different from game or gaming products.

There is no specific task to complete and the aim is not to compete with other players, instead, it is a digital world created by its users. It allows users to meet other users from around the world in an established online environment (Schiller, 2009; Mabrito, 2012).
Within educational environments, SL has the potential to offer opportunities for educational institutions to construct teaching and learning classes, training programs, discussions, forums, etc.

DEFINING SECOND LIFE (SL)

Many people have called Second Life (SL) a game; others call it a social networking platform, a venue and alternative. SL is defined as asynchronous online three-dimensional virtual world (also referred to as a Multi-Users Virtual Environment or MUVE).

It is been developed by a San Francisco based Linden Lab, and was launched in 2003 and made available on the Internet. SL entice users with the following statements “Enter a world with infinite possibilities and live a life without boundaries, guided only by your imagination” Linden Research, Inc., 2012 (as cited in Reinsmith-Jones, Kibbe, Crayton, Campbell, 2015, p.92).

Linden Lab has generated Second Life platform filled with objects, adventures and experiences of the individuals using Second Life. People enter SL for various purposes including, but not limited to meeting other people, working, educating and being educated and having fun along the way (Hundsberger, 2009; Schiller, 2009).

The fundamental underlying the SL invention is to create users or “residents” through their own representatives - avatars. The avatars, much like in the real world, can do anything from buying their own land, building their houses, rent properties, working, dancing, attending university, get married, and do various other activities on different islands. Evidently, SL is a digital presence consists of multitude of islands which can break up, to be sold and purchase by avatars. The currency in SL is Linden $, which has an exchange rated of 1 US$ (equal approx.: 260 L$). Thus, the environment within Second Life is an imitation of the real life (Cheng, Zhan, & Tsai, 2010; Storey & Wolf, 2010).

In addition to the above, the avatars can communicate with other users through traditional text chat, or the use of the more recent incorporation of voice chat (Carter & Elseth, 2009; Keskitalo, Pyykko, & Ruokamo, 2011).

SL also has the abilities to record actions that occur within SL. As a result, learners or users have the opportunity to assess and reflect their personal performance and interactions with others by viewing their own recorded video clips in SL (Wang, Song, Xia, & Yan (2009). Such potential is meaningful in teaching and learning as it provides all stakeholders in education (particularly teachers, instructors and researchers) to reflect and formulate improvement on the learners’ proficiency both from the linguistic and social communication perspective.

SL offers a friendly and easy to register to its users as depicted in Diagram 1 below. The first step is to register by logging into the official website www.secondlife.com.
All users are required to give their personal information including their first and last name, address, email, and gender. Then they will be asked to choose an avatar, which represent them in the virtual world in SL. Generally, there are two types of account to register. Namely one is Free and another is called Premium with a required nominal fee. User has to pay registration fee in Linden dollars if the user wants to be Premium member. Premium account allows users to purchase a land where they can build their buildings and conduct activities. However, free account allows users to create objects but will not be permanent.

Diagram 1: Second Life Registration

When users become SL members, they can purchase a land where they would be allowed to conduct various virtual activities. Both types of account are fun to enroll and offer various teaching and learning opportunities on tops of other benefits that SL provides.

With its friendly and interactive interface, SL offers users to be creative and innovate ideas. For example it allows students to create a persona (animals, human or something between) and interact with others, who are in the same environment at the same time, and change their appearance. These may include dressing, clothing, hair color, shoes, etc. (Inman, Wright, & Hartman, 2010; Oaks, 2011).

Additionally, power points presentations can also be uploaded into SL and attached to certain objects. Note cards that may contain information that a teacher desires can be attached to any object in Second Life and recaptured with just a click of the mouse. Additionally, words or phrases can be attached to objects as floating script, so the students would not even need to click on an object to get a written version of its corresponding words (Carter & Elseth, 2009). Therefore, if SL is used and adopt into the English language education, it provides endless opportunities for a much interactive, engaging and fun learning.
SL helps learners to explore the lessons that they have learned, particularly offering them much more practice opportunities situations compared to the limited and inflexible traditional classroom.

As a result, SL is currently being used by many educational institutions as a way to engage students in immersive educational environments. This crucial method of teaching in SL is a combination of theory and practice together with distinctiveness of environment (Carter & Elseth, 2009; Hundsberger, 2009).

The interaction and interactivity within the activities in the SL virtual environment platform allows EFL learners to use English language through personified virtual characters. It is learning but in a fun way. Hence, SL encourages learning willingness and enhances interactive learning (Chung, 2012). Second Life is a useful tool for language learners. It provides them with a unique opportunity to use the target language skills with other learners and potentially with native speakers of the English language. Such opportunity allows the learners to communicate with native speakers to practice their oral skills and improve their pronunciation. It also provides some cultural awareness (Wang et al., 2009). Such opportunity over time would improve learners’ confidence and ability.

SECOND LIFE AFFORDANCE IN EDUCATION

One of the essential goals of education is to help students build their skills in both their preferred and less preferred learning opportunities (Idrus, 2008). Thus, the most successful way to learn second or foreign language is to participate in a community in which the target language is used to communicate in a real environment (Ibanez et al., 2011). The communication with other learners or native speakers of the target language has been recognized as an essential part of the learning process (Ellis, 1999). The advantage of conversation in authentic situations is invaluable to language learners (Krashen, 2003). In contrast, within a traditional EFL classroom environment, such opportunity or chances is not available. SL offers a platform where learners can meet and engage with authentic dialogue in a simulated environment, giving individuals a sense of ‘being there’ (Gaukrodger & Atkins, 2013).

Moreover, Second Life can be utilized to make learning more meaningful, interesting and attractive with the purpose to improve the mastery of the target language. This is attainable due to its immersive and interactive environment. According to Storey & Wolf, (2010) and Hismanoglu (2012) Second Life is a unique learning tool for EFL learners. It gives them unique opportunity to practice language with native speakers and non-native speakers of English for all over the world. Therefore, with endless potential, SL is particularly appropriate for teaching and learning foreign languages. Students can immersive themselves in linguistically appropriate environment, and be interactive with animated features (Mabrito, 2012; Abdelaziz, Riad, & Senousy, 2014).

Literature has proven that creating social and authentic interactions could enhance language production, promote communication and assist foreign language learning.
Therefore, constructivist approach identifies that knowledge is built by students rather than conveyed and that argumentation encourages negotiation and collaboration among learners (Vygotsky, 1978). In other words, a constructivism theory proposes the idea that learning occurs through interaction in the learning environment. Therefore, meaningful knowledge is constructed through the physical interaction with the real world (Mcdonough, 2001).

In this regards, 3D virtual world environment for teaching and learning such as Second Life can support constructivist learning because it allows users to be physically there in the virtual environment where learners can construct their linguistic and cultural knowledge through authentic interaction with native speakers (Cheng et al., 2010).

SL offers new ways to support learning in virtual contexts. Its unique attribute enable schools and universities to achieve targeted educational goals, which otherwise would not have been achievable in the physical world (Zhang, 2013). In this regards, USA today reported that more than 300 universities around the world and a large number of colleges, and in some cases individual departments have employed SL as an educational tool for open distance education courses, and some use by teachers to support existing traditional classes (Henderson, Huang, Grant, Henderson,2009; Hismanoglu, 2012).

As advancement of technology continues to change education and the processes, we will see more improvement to various educational tools including SL. To date, there has been various empirical works looking at the effectiveness of teaching foreign languages using Second Life. Hislope (2008) reported the perceived benefits and drawbacks in using Second Life as a virtual reality program in her intermediate Spanish course in 2008 to a classroom supplement to promote contact and conversation with native Spanish speakers. Results of a survey with 20 open-ended questions administered to 15 students showed both positive and negative experiences with learning Spanish in Second Life. Students like interactive, creative, and gaming -like aspects of Second Life. The reported negative experiences with Second Life focused heavily on technical issues and the high learning curve of navigating the Second Life. Regardless of challenges, 13 of 15 students reported that Second Life could help them improve their comprehension of Spanish.

In another study, Wang et al. (2009) explored an international corporative study between a Chinese university and an American university to investigate students’ technology readiness and their perception of using Second Life as a language learning platform.

This study also focused on students’ perceptions on integrating Second Life into teaching English as a foreign Language program. Sixty one EFL learners in China meet weekly within the American partners to complete the assigned learning tasks. Evidently, this research showed that EFL learners positively perceived Second Life as a language learning tool, and they understand the EFL program in Second Life offers much promising successful learning experience. It offered them fun productive learning that would not be easily achieved in real life.
BENEFITS OF SECOND LIFE TO ENGLISH AS A FOREIGN LANGUAGE TEACHING AND LEARNING

Virtual Worlds like Second Life are particularly well suited for teaching and learning foreign language as it allows learners to immerse themselves into linguistically appropriate environments. It also allows them to communicate with each other to achieve the educational objectives and experience in ways that will not be possible within the conventional EFL classrooms (Cheng et al., 2010). Over times, Second Life has now gained popularity and is found to benefit various foreign language education including the teaching and learning of the English language as a foreign language.

Warburton (2009) and Hismanoglu (2012) inserted that SL offers various benefits to the teaching and learning of English to EFL learners. These include:

- **Rich interactions:** Second Life has potential to provide opportunities for social interaction among people and their communities, human-object communication and also intelligent interaction among artifacts.
- **Contextualization and visualization:** It provides learners and users with playing opportunities, and production and reproduction content which may be impossible to realize and duplicate in the real world.
- **It provides learners to recognize and learn about other cultures.**
- **It makes immersion in 3D virtual World where learners having strong expression of being presence through avatars.**
- **Simulation:** It provides reproduction of context, sometimes hard to produce in the real life.

Many studies have conducted extensive research on anxiety and motivation and their correlation with linguistic performance of learners, emphasizing the role of anxiety and motivation as determinant factors in foreign language learning (Toth, 2011; Thayne & Dana, 2013).

The higher motivation and lower anxiety levels students will be more successful in their learning of a new language. Environment plays a crucial role for improving learner motivation and help learners decrease their anxiety levels to a minimum (Liu & Cheney, 2014). In real world, Asian students have suffered from performance anxiety.

Socially, it is not adequate or ‘acceptable’ for them to make mistakes and they do not like to embarrass themselves in community. As a result, they are shy and do not like to speak up.

SL offers a plausible solution to performance anxiety. In actuality, as proven by various research iterated earlier suggest that the performance anxiety is significantly reduce in Second Life. One of the most prominent features of SL is that users can remain anonymous (Hansberger, 2009).

This is beneficial to some students especially to those EFL learners who suffer from performance anxiety in real life.
In addition, Inman et al. (2010) pointed out that researchers and educators are choosing SL because they believe that SL provides a high degree of realism with minimal risk and offers a great venue for informal learning situations. Given that SL could persist to be part of the educational argument in order to help instructor in deciding how to utilize SL as an educational tool.

SECOND LIFE AND ITS CHALLENGES IN EFL

The use of Second Life for creating language learning environments holds great benefits. Nevertheless, it also has its limitations and challenges. Baker, Wentz, & Woods (2009) pointed out plausible issues or challenges:

- The need for high end technology: Second Life involves more than a simple computer. Requirements of complete system are listed on SL web site. The computer of many educational institutes might not be able to meet the system requirements. Therefore, SL platform involves specific advance graphic cards and high speed broadband connection.
- Some students might also have anxiety about learning to use SL. Some students may not enjoy online interaction or comfortable working online, while others are willing to try new technologies.
- Overlapping conversations can happen simultaneously which can become confusing among learners. In this case, teachers must formulate procedures for dealing with group discussion in SL.
- Difficult operation tasks. Some students are able to create an avatar, download the software, and learn most basic operation within an hour; nevertheless, this process will not be easy for some.
- Finally, security matter should be taking into account. Learners want to be informed about appropriate behavior and safeguarding their privacy while communicate in SL.

CONCLUSION

Teaching and learning English is always a challenging task. Every country, culture and community of learners may present their own unique issues and challenges to English language education.

It is a field that will see continues research in search of new pedagogies, strategies, techniques, software, games, etc., to a successful mastery of the target language. This paper shares a literature review on SL and its potential in EFL, and consequently has motivated a PhD study pioneered integrating Second Life into EFL education.

The study focuses on Second Life in learning and teaching English as a foreign language which may offer various advantages and benefits to learners and teachers.

Nevertheless, learners are predictable to progress and participate in interactive and engaging educational activities that improve learning process. Second Life is a unique opportunity for learners.
It allows learners to interact with native speakers and other learners through avatars in the environment and can produce new experiences that may difficult to present in the real life classrooms.

It can foster synchronous interaction with teacher, students and other learners. It can also foster competency based training like vocabulary, skill, and grammar such other computer assisted language learning devices.

SL provides an effective learning environment for EFL learners beyond traditional learning environment. Teachers of English language can utilize SL in their teaching as a part of a supplement tool to a traditional face-to-face learning. Activities occur in virtual learning environments will help students negotiate meaning, develop their language skills, and realize the way in which language is used. Finally, SL contributes to creating virtual environment in which EFL learners could be learning through interaction and collaboration.

BIODATA and CONTACT ADDRESSES of the AUTHORS

Riad F. HASSAN AL-TAMIMI works in Iraqi National Monitoring Authority as a head of department. Now, he is a PhD student at College of Arts and Science, Universiti Utara Malaysia UUM, Malaysia. He holds a B.A degree in English Language Studies from Baghdad University, Iraq as well as a M.A degree in Linguistic and English Language Studies from Universiti Sains Malaysia USM, Malaysia. His research interests especially are English language learning, e-learning, Virtual Reality and Educational Technology.

Riad F. HASSAN
College of Arts and Sciences
Universiti Utara Malaysia
Penang, JLN Helang, 11700 Gelugor
Desa Permai Indah, N-6-4
Tel: +60126186881
Email: riadfow@yahoo.com

Dr. Hisham DZAKIRIA is presently an Associate Professor in the field of Open Distance Learning. He presently works at School of Education and Modern Languages Universiti Utara Malaysia. With a desire to learn and to respond quickly to maximise personal growth to contribute effectively in chosen career path, Dr.Hisham completed his Doctor of Philosophy (PhD) in Professional Development majoring in Open Distance Learning Ergonomics.

He continued to train himself with technological advancement in ODL through on the job experience and training. Obtained a Masters of Arts in Linguistics with a Minor in Communication, two bachelor degrees from Brock University, St. Catharines, Ontario, Canada majoring in Education and Applied Linguistics.
Over the last 10 years, Dr.Hisham has conducted various training job on Communication, Education, English Language Solutions and Management for the government and private sectors in Malaysia, Thailand, Sri Lanka and Indonesia.

These include on the job training that focuses on e-learning, ODL Support System, Adult learning, Teaching English as a Second Language (TESL), English as a Second Language (ESL), English for Language Learning (ELL), English for Specific Purpose (ESP), Communication, Language and Culture, Understanding Culture, Effective Negotiation, Business and Culture, ICT in education, CPD courses, HR related programmes which include: Change; Strategic Planning, SWOT analysis, 360 Degree Change; and others. He has also conducted and completed consultancy projects under Asia Bank of Development for various government bodies in Bangladesh, Sri Lanka, Thailand and Indonesia. He has also conducted consultancy projects with Commonwealth of Learning (COL) for UNHCR on evaluating On-line Writing Courses. He has developed knowledge and skills to offer educational techniques, tools and experience on ODL, Open educational Resources (OER), CPD, Profiling distance learners and their learning styles.

Hisham DZAKIRIA
College of Arts and Sciences of Universiti Utara Malaysia
Sintok, 06010, Kedah Darulaman, MALAYSIA
E-mail: hisham@uum.edu.my or drhishamdzakiria@yahoo.com
Tel: +6016602801

Rozhan bin Mohammed IDRUS was born on the Island of Penang in 1959 and is now married with 5 children. Dr. Rozhan Idrus is a Professor of Open and Distance Learning & Technology and is presently holding tenure at Universiti Sains Islam Malaysia (USIM). Trained as an instructional designer, he has published more than 170 scholarly works in the forms of books, chapters in books as well as refereed journal contributions. He holds a B.Sc. (Hons.) in Pure Physics and a PhD in Solid State Physics, both from the University of Salford in the United Kingdom. Dr Rozhan commenced employment in 1986 at the School of Distance Education, UniversitiSains Malaysia in Penang, Malaysia and was promoted to the post of an Associate Professor in 1994 and has held the posts of Deputy Director (Productions) (1993- 1996) and the Chairman of the Remedial Sciences Programme (1987-1991). He Works on Environment Management System ISO 14001, Production of Multimedia Distance Learning Materials, Using Communications Networks in Supporting Distance Education Students and Tutors (MARA Institute of Technology, Kuala Lumpur, Malaysia) November 11-12, 1997, Planning & Management in Distance Education (International Extension College & London University, Performance Management (Universiti Sains Malaysia) & Total Quality Management (Universiti Sains Malaysia)-1995, Training for Trainers in Total Quality Management, Technical Training in Instructional Design (Open Learning Agency, Vancouver, Canada) at The Open Learning Institute, Richmond, British Columbia, Canada under The Open Learning Institute International Training and Development Office, Module Writing Course - Murdoch University.
REFERENCES


