

# Chapter X

## A Non–Language Learning Courseware and its Challenges

**Jowati Juhary**

*The National Defence University of Malaysia, Malaysia*

### ABSTRACT

*This chapter analyses the challenges in adapting a non-language learning courseware (NLLC) for a military learning environment. The National Defense University Malaysia, Kuala Lumpur (NDUM) was the subject for observations and an informal survey. The findings of this chapter argue that there are technical, theoretical, and pedagogical challenges that need to be overcome when using an NLLC in language classrooms. With the rise of information and communication technology (ICT) and the Internet, tertiary military institutions are pressured to implement e-learning technologies in their learning environments. However, not many institutions have the capacity to do so. The author argues that the adoption of an NLLC for an institution that has resources constraints can help determine the potential of using e-learning technologies to help students acquire the target language better.*

### INTRODUCTION

Military institutions are considered to be among the oldest institutions in the world. Since the time of Plato, the institutions have often been called the ‘guardians’,<sup>1</sup> and the public respected them as such (Stiehm, 2002, p. 1). Given their special role and prestige, most governments need to ensure that their military institutions are ready to defend the country, and such readiness depends critically on comprehensive learning. Continuously

improving learning programs for the military has, therefore, become one of the most important aims of governments. This is reflected in the large military budgets that have emerged in the post-WWII world. Depending on the national defense strategies and foreign policies of a country, its needs and aspirations will be reflected in the learning programs of its military institutions. These learning programs range from academic to military curriculum and from professional to language courses.

The question addressed in this chapter is on the challenges of adapting a non-language learning courseware (NLLC) for cadets in a military learning environment. One of the current methods of facing the challenges of change and globalization is by adopting information and communication technology (ICT) in the learning programs of military institutions. With the growing awareness of the potential of information technology (IT) and the role of knowledge workers in developing a knowledge economy, e-learning technologies have become a national issue for many countries. Implementing new technologies in the working and learning environment could prepare future generations for the new culture of global networks and economies. Countries are expected to enhance their educational system because only through education can the future of a nation be secured. In addition, education has historically played a major role in preparing military institutions for war, and in providing states and alliances with an instrument of strategic power (Holder & Murray, 1998, p. 81).

The purposes of the chapter are twofold:

1. To identify the challenges in adapting an NLLC for cadets at the National Defense University Malaysia, Kuala Lumpur (NDUM); and
2. To analyze the implications of adapting an NLLC at the NDUM.

## **THE SIGNIFICANCE OF THE CHAPTER**

It is argued that cadets at tertiary military institutions must acquire a second language in order to effectively function after graduation and being commissioned. For example, taking into account the current issues at the Middle East, graduates of the United States Military Academy, New York (West Point) should master Arabic or the Persian/Dari language as their second or third

language. This chapter identifies the language acquisition challenges from the point of view of the Malaysian military institution. As an ex-colony in a middle-ranking power region, cadets at the NDUM may not need to acquire European or Middle Eastern languages. Malaysia does not envisage playing an independent role in policing the region or becoming a major global player in security matters. Nonetheless, three factors have made it crucial for the NDUM graduates to master the English language. Firstly, even the relatively modest domestic and border concerns expressed by Malaysia's defense strategy require a modern and competent military. The ability of cadets to use the English language competently will ensure that misunderstanding can be avoided during the joint operations with armed forces from other countries. Secondly, active participation in United Nation Peacekeeping Operations also demands that military officers be fluent in the English language. Thirdly, the English language is an international language. The future career development of the NDUM graduates depends on their English language proficiency: external training or formal academic opportunities in English-speaking countries. Consequently the NDUM must equip its cadets with, among other knowledge and skills, the appropriate level of language competency and proficiency.

## **THE METHODOLOGY**

The main quantitative data of this chapter were collected at the NDUM. Formerly known as the Military Academy of Malaysia (MAM), the upgrade to a university status in November 2006 increases the pressure to also improve the learning environment at the NDUM. This chapter focuses on the question of language learning. The only language taught at the NDUM is English. The current method of teaching the target language is through face-to-face (F2F) sessions; indeed this is the only way cadets learn their proficiency and specific English language skills.

The NDUM recently acquired a new language laboratory, and the author<sup>2</sup> quickly grabbed the opportunity to test how new technologies can help cadets to learn language better. A short of appropriate courseware due to several restrictions, the author used a CD-ROM titled *Military History South Pacific Campaign*<sup>3</sup> by the Australian Department of Defense (DoD) to start a language learning project using digital technologies. This pilot project is crucial in determining the future e-learning strategies at the NDUM.

A total of 118 cadets were involved in the project. They used this courseware for three months from July to September 2006. The courseware was incorporated into one of the cadets' English language courses, *English for Academic Communication*. This course is the second language course in the English language course series at the NDUM. These course series are core courses that all cadets must undertake in order to graduate and to be commissioned. It needs to be emphasized that the courseware by the Australian DoD was not originally meant to teach the target language. However, since the medium of the courseware is English, the content materials are military-related themes, and the author had no other means of acquiring other courseware to jumpstart the language project, relevant activities for English language learning using the courseware were developed.<sup>4</sup>

It is important to emphasize that cadets were informed of the origin of the NLLC, and that they would participate in a survey after 24 hours of using it. Cadets were also informed of the purposes of the language learning project. In so doing, the author attempts to generate genuine effort by cadets in utilizing the NLLC and honest opinions in answering the questionnaire. For three months, cadets—who were divided into five smaller groups—used the courseware for two hours per week in the language laboratory. After the total of 24 hours, they were given questionnaires to answer. This questionnaire aimed at gauging their opinions on issues of using e-learning technolo-

gies. The statistical analysis was completed by Statistical Packages for Social Studies Version 14 (SPSS 14).

## **THE STRUCTURE OF THE CHAPTER**

In an attempt to achieve the purposes, this chapter is divided into four main sections. The first section examines the literature review on e-learning technologies in Malaysian higher learning institutions. Also briefly discussed in this section are Computer-Assisted Language Learning (CALL) and English for Specific Purposes (ESP) literature. While the second section examines the findings of the survey, the third section identifies the implications of the findings, which can be common issues but have sound resonance for language learning at the NDUM. The fourth section focuses on the future trend of language learning. A conclusion follows.

## **DIGITAL TECHNOLOGIES AND LANGUAGE LEARNING**

### **E-Learning Technologies: Concept and Practice in Malaysia**

Malaysia is looking at the new century as an era, which presents challenges of rapid advancement in information and telecommunications technologies. Thus, there is a constant need to look closer at the educational demands. At the same time, the nation is leapfrogging with the implementation of its plans towards achieving Vision 2020,<sup>5</sup> which precludes a necessity of having highly skilled workforces in all sectors. Malaysian society needs a new compatible educational system in the right module and level to keep up with the challenges. In effect, e-learning for tertiary education in Malaysia is prospering greatly. Many reasons contribute to this development. One of them is the fact that

more Malaysian private companies are willing to invest in higher learning education. As such, the first virtual university to utilize e-learning is Universiti Tun Abdul Razak (UNITAR), which was officiated in 1998. The second university to adopt e-learning as its medium of teaching and learning is the Open University of Malaysia or OUM. At present, many private colleges are offering courses online as an alternative to students who cannot meet the schedule like ‘traditional’ students. Actually, e-learning in tertiary education is supposed to be the continuation of the 11 learning years in the smart schools at the primary and secondary levels (Juhary, 2001, p. 177). Nevertheless, e-learning in tertiary education is stepping further ahead. Besides many investments that are pouring in tertiary e-learning, the age factor of students and level of maturity may result in an easier way of handling flow of information and using it efficiently (Gan, 2000).

The e-learning concept allows for the democratization of education; more adult and working people can further their studies as distance and time are no longer the barriers to education. Students can get the access to their coursework and exercise materials anywhere and at any time. The virtual education learning is designed around the use of interactive multimedia courseware to create an interesting and stimulating learning experience for students, while at the same time they can join discussions with their lecturers and other students online. The concept of e-learning in a military learning environment is, however, slightly different. For example at the NDUM, all cadets live on campus; as such, the e-learning concept reflects cadets’ use of technology anywhere (on campus), any time, and at different paces. Also, cadets join the NDUM right after their secondary schools, and thus they cannot yet be categorized as adult—their ages range from 18 to 23 years old.

The practice of e-learning in Malaysia is still in its infancy stage; only UNITAR and OUM offer almost 75% of their courses online and with

an e-learning environment. Their courseware and others from different universities are not the same, as most universities have different curricula. Many public institutes of higher learning—for example, Universiti Malaysia Sabah, Universiti Putra Malaysia, Universiti (i) Teknologi Mara, and Universiti Sains Malaysia—use e-learning in a mixed-mode environment (Lim & Ndubisi, 2003, p. 25; Sulong, Abu Bakar, Ibrahim, & Embi, 2002). To be more specific on the practice of e-learning, there is not yet a course being delivered 100% online in Malaysia. It is always a blended e-learning course where a combination of e-learning and traditional F2F learning is used together.

### **Benefits and Skepticism of E-Learning Technologies**

In much of the literature it has been suggested that e-learning technologies help students to understand and learn better. Although these benefits are not unique to military learning environments, they are particularly pertinent to the training of military leadership. The benefits<sup>6</sup> include:

- Facilitating students’ construction of knowledge, testing their ideas, actively sharing and seeking information, generating a diverse array of ideas, appreciating multiple perspectives, engaging in social and intellectual interaction and dialogue, engaging in critical thinking and problem-solving exercises, increasing participation and reflection (self-directed learning), developing multiple modes of representation, and becoming more self-aware;
- Facilitating students’ engagement in a meaningful learning context, and thus increasing the ownership over their own learning;
- Helping students to learn more effectively at their own pace and in their own way;
- Helping students to select, store, and retrieve information efficiently;

## A Non-Language Learning Courseware and its Challenges

- Preparing students for real-life situations as students have an opportunity to explore many possibilities using authentic materials;
- Helping instructors/lecturers maintain content relevance by providing ready access for updating, adding, and deleting materials; and
- Helping institutions cut the costs of logistics and travel when the need for training arises.

All the benefits mentioned above are constrained by some broader considerations in the educational context. These considerations have given rise to many critics of the new learning technologies.

The most significant critic is on the costs—the issue is whether the costs of developing new learning technologies produce better outcomes for military cadets and soldiers as well as the country as a whole. There is no point in investing a huge amount of money on digital technologies if the alleged benefits are unreachable. For example, the assumed cheapness of applying ICT approaches to learning has been questioned. As Bates (2001, p. 15) and others have noted, investments in digital technologies can be costly because of the time-consuming nature of developing courseware, purchasing and implementing IT systems, and maintaining IT operations. Most of these costs, especially during the first three years, can be exorbitant (Marginson, 2004, p. 100). Some critics are more optimistic than this, suggesting that after the IT learning systems mature and stabilize, the costs of running, maintaining, and upgrading them may be reduced. It has been suggested that it would generally take institutions up to three years to reduce operational costs by 20-30% relative to startup costs in the first few years (Beckett, 2004, p. 20).

Other critics have focused more sharply on particular aspects of these digital strategies. By itself, modern electronic technology cannot gen-

erate better learning or teaching results. Many critics point out that whatever e-learning does, it needs to be compatible with the advanced principles of pedagogical theory. All too often, there is a dysfunctional gap between technology and pedagogical principles, arising from a number of factors including the lack of clear pedagogical guidelines for analyzing, designing, developing, supplying, and managing e-learning materials (Alonso, Lopez, Manrique, & Vines, 2005, p. 218). In particular the problem of how to teach and deliver content has been insufficiently attended to on the assumption that the technology itself will explain everything (Blinco, Mason, McLean, & Wilson, 2004, p. 12). Many scholars note that appropriate channels for content delivery are as important as the selection of appropriate materials (Woodill, 2004, pp. 5-9).

While the previous several paragraphs have examined e-learning technologies in general, the next two subsections discuss specific concerns of this chapter, that is, language acquisition using new technologies and the significance of learning the target language for specific purposes.

### Computer-Assisted Language Learning (CALL)

CALL is the use of computers or e-learning technologies as part of a language course. There are many uses of e-learning technologies in a language classroom even if there is an absence of a *proper* language learning courseware. For example, by using the Internet and World Wide Web (WWW), a language teacher can assist his or her students to read in and listen to the target language. With a *proper* language learning courseware, students can achieve more in their quest to acquire the target language. There are advantages of using CALL in classrooms, and Ravichandran (2000, p. 82) outlines four below:

1. **Interest and motivation:** ‘Practice makes perfect’ and thus it is essential to provide

repeated practice to meet important objectives. Because this process can be dull and frustrating, many students lose interest and motivation to learn a foreign language(s). CALL programs give students a different approach to learn the language(s).

2. **Individualization:** Many students need additional time and individualized practice to meet learning objectives. The computer offers the opportunity for students to self-direct their learning at a speed and level dictated by their own needs. Besides, additional programs can be made available for students who master learning objectives quickly.
3. **A compatible learning style:** Students differ in their styles of learning. Many students appear to learn much more effectively when they are able to use a suitable learning style than when they are forced to use an incompatible one.
4. **Immediate feedback:** Students receive maximum benefit from feedback only when it is supplied immediately. Their interest and receptivity decreases when the information on their performance is not prompt.

### **English for Specific Purposes (ESP)**

There have been a lot of debates on what ESP is for. Giving definitions is insufficient, and thus the author selects literature that serves this chapter's purposes. What then is ESP? Carter (1983) identifies three types of ESP:

1. English as a restricted language,
2. English for academic and occupational purposes, and
3. English with specific topics.

In the NDUM setting, the author opts for the second type of ESP identified by Carter.

Further, Hutchinson and Waters (1987, p. 17) offer a slightly different view of ESP. Using the

Tree of English Language Teaching, they divide ESP into three branches: (a) English for Science and Technology (EST), (b) English for Business and Economics (EBE), and (c) English for Social Studies (ESS). Each of these subject areas is then divided into two branches: English for Academic Purposes (EAP) and English for Occupational Purposes (EOP). An example of EOP for the EST branch is *English for Technicians*, whereas an example of EAP for the EST branch is *English for Medical Studies*. Nonetheless, there is no clear cut trend between EAP and EOP for cadets at the NDUM, as they study and are considered 'working' at the same time; their needs for ESP is inevitable and will be the same for examination and employment purposes. Additionally, it is noted that there is no categorization for a military branch. For the purposes of this chapter, the author chooses to categorize military skills and themes under EST because most materials involved discussions related to engineering, science, and technology, and also because the NDUM emphasizes these three areas in its academic and military programs—the university awards seven undergraduate engineering degrees out of a total of 12 undergraduate degrees.

All in all, this section has provided the conceptual framework for this chapter. The next section discusses the empirical evidence of using an NLLC in a military learning environment.

### **THE SURVEY AND THE FINDINGS**

*English for Academic Communication* carries four contact hours for cadets at the NDUM—two hours in the language laboratory and two hours in F2F sessions. Because the author was embarking on a pilot project for teaching English language using new technologies, it was first necessary to create a pre-teaching module that could help in the teaching and learning process. The concept of the pre-teaching module is communicative and interactive. The reasons why the concept is

chosen are twofold: firstly, language in communication is used to accomplish some functions; and secondly, communication is a process to convey the relevant meanings (Larsen-Freeman, 2000, p. 123). The underlying presumption is that language is for communication. The goal of language teaching then is to achieve ‘communicative competence’ (Hymes, 1985, pp. 284-286). This means that not only are linguistics elements important, but more important is how people use language to communicate—whom to speak to, what to say, when to say, how to say, and where to say something.

Communicative approach has four characteristics in terms of language use: (1) language is a system for the expression of meaning, (2) the primary function of language is for interaction and communication, (3) the structure of language reflects its functional and communicative uses, and (4) the primary units of language are not merely its grammatical and structural features, but categories of functional and communicative meaning as exemplified in discourse (Richards & Rodgers, 2001, p. 151). To suit students’ needs of learning the target language, ample consideration is exercised when choosing the materials. Language learning activities for cadets must emphasize several types that conform to a communicative approach, and they must be suitable for ESP, for example, task based (Prabhu, 1983), functional (Jupp & Hodlin, 1975), and student-generated (Henner Stanchina & Riley, 1978). *English for Academic Communication* has four objectives, and they are tailored to ensure that cadets achieve communicative competence. Developed by the English language course committee at the NDUM, the objectives are:

1. To extract important information from written and recorded texts, and reproduce it in the form of notes;
2. To use appropriate reading skills and strategies that can assist cadets to read independently and critically in their area of study;

3. To write essays based on notes taken from written and recorded texts; and
4. To make oral presentations based on information from the reading and recorded texts.

### **The Non-Language Learning Courseware (NLLC)**

As mentioned earlier, the courseware was originally used by the Australian DoD to teach its personnel the history of the South Pacific campaign. While its primary reason for developing and designing the courseware was not to teach the English language, the author finds the courseware to be suitable for language learning at the NDUM, and at the same time to expose the cadets to the military history. Although the NLLC focuses on the roles of the Australian Armed Forces (ADF), Malaysia was also part of the Japanese Occupation in the 1940s. It is a reasonable assumption that cadets would need to know other military’s participation during the Japanese ruling in Southeast Asia. Thus, in using the NLLC, the cadets would acquire the language skills and history knowledge concurrently.

The NLLC has six sections; each section explains the different aspects of the ADF’s roles in the South Pacific campaign. There is audio explanation that accompanies each page (or screen) on the NLLC; some pages have text to further clarify important points. It can be deduced from the pages that the courseware has incorporated the advantages of audio and visual technologies to keep users engaged. It needs to be emphasized that the activities for language learning were displayed on a separate courseware; this suggests that cadets must minimize the page from this NLLC and click on the activity button on the computer desktop to launch the language activities.

Twenty different activities were developed based on the NLLC. The activities conform to the communicative needs of cadets as described earlier, and they are divided into several types

of exercises such as multiple-choice questions (comprehension and listening skills), fill-in-the-blank/map exercises (information gap, dictation, and writing memos), and drag-and-drop operations (language structure and vocabulary skills). Further, the activities have three levels of difficulty to suit cadets' levels of language proficiency. It is important to stress that there is no formal assessment that used the NLLC; all activities were conducted during laboratory sessions. However, after each activity, the marks of the cadets would be tabulated and automatically sent to the language teacher. This enables the teacher to see whether cadets have understood the lessons of the day or not.

Since cadets used the NLLC for two hours weekly, the other two-hour sessions were conducted in classrooms. The language learning is arranged based on cadets' progress and experiences—each lesson aims at building cadets' language skills. The F2F sessions were reserved mainly for essay writing and role-playing activities. In this way, the course is conducted using a mixed-mode environment, F2F sessions, and e-learning technologies.

## **The Main Findings**

The questionnaire distributed to cadets had two parts with 20 main items. The first part asked cadets to choose between five Likert scales (*Strongly Agree* to *Strongly Disagree*) on issues related to their experiences of using the NLLC. The second part asked cadets to write any comments about their experiences.

By and large, cadets found that the NLLC provided a different learning approach—a fresh and interesting way to learn the target language. Most importantly, 89% of respondents stated that the NLLC helped them to relate to their future life as military officers, and 93% of respondents found the use of the courseware for English language learning helped them to visualize how the language is used in the military context. While

most respondents felt that the courseware is helpful and innovative, it is essential to discuss some challenges of using an NLLC in a language class at the NDUM. These challenges can be categorized into three broad areas:

1. **Technical challenges:** Because the language activities are separately developed from the NLLC, cadets found it distracting to minimize and then click on the activity button. Based on the survey, 65% of respondents felt that they lost their concentration when they had to go to the activity button. Further, 67% of respondents said that it was a hassle to go back to the NLLC when they wanted to refer to some information. Some respondents felt that the pages for the activities should match the NLLC in terms of font types, font sizes, and color schemes; 53% of respondents agreed that uniformity between the exercise courseware and the NLLC was important to attract and retain their attention.
2. **Theoretical challenges:** The original use of the courseware is not for language learning; instead it is for military history lessons. As such, it is obvious that the way the materials are presented and displayed did not give focus on cadets' needs to learn the target language. For example, 78% of respondents felt that they need to respond to the NLLC directly; if they did not understand a word, running a mouse over the word should provide them with a definition. Also, while 88% of respondents agreed that the NLLC provided an interesting stimulus to listen to the target language, 91% of respondents asserted that some aspects of the audio were difficult to comprehend. This was because the respondents were not only unfamiliar with the native speakers' speech, but more importantly they were not used to the Australian English accent.
3. **Pedagogical challenges:** Some cadets commented that learning language using an

online courseware did not help them at all. Thirty-seven respondents felt that they still needed a language teacher to help them in their language lessons. While they agreed that the online courseware could be used anywhere and at any time, they pointed out that to acquire skills such as pronunciation, a language teacher was needed to guide the process in F2F sessions. In addition, 86% of respondents agreed that language learning should involve more F2F pair and group work; they claimed that F2F communication was vital in acquiring the target language. This statement is further supported by 79 respondents who felt that learning language using the technologies offered reduced the opportunity to work and communicate with classmates.

The findings from the survey suggest that some issues are in need of extra considerations. Although these findings originate from a pilot language learning project at the NDUM, they present significant characteristics of language learning using e-learning technologies, and they lead to three implications discussed in the next section.

## **THE IMPLICATIONS**

The implications of using an NLLC for the teaching and learning of English language at the NDUM are threefold. Firstly, with appropriate selections and creative modifications of an NLLC, any institutions can cut the cost for new technologies; educators can adapt and share resources worldwide. While not all resources can be shared because of copyright and confidentiality issues, most common content courseware such as military history and cultures can benefit military students in many countries. Secondly, for military cadets at non-speaking English countries, the adaptation of courseware developed in English language can

help them to learn the target language. Many of the educational courseware programs available that can be obtained commercially are developed in English language. The task of the instructors is to make sure that the materials in the NLLC are appropriate for their students in terms of level of difficulty, cultural sensitivity, and language expressions and jargons. Thirdly, cadets can in fact benefit from using a courseware that uses the English language and at the same time has military contents; cadets can gain knowledge about their future vocations while acquiring the target language. Even if the military contents differ from the normal practices at the cadets' home countries, they can learn about other countries' military traditions. These experiences can enrich cadets' appreciation of their future jobs. In addition, this provides authenticity for language learning and thus increases the motivation for learning because cadets can see how the target language is being used in real-life settings.

In short, these implications provide general guidelines for the future use of e-learning technologies at the NDUM. The implications also highlight the future trend of an NLLC and e-learning technologies in a military learning milieu as discussed next.

## **FUTURE TRENDS**

Finding solutions to the challenges identified earlier has not been easy, because in many ways technological progress had outstripped the capacity of educators to develop pedagogical models that meet current needs (Bracewell, Breuleux, Laferrière, Benoit, & Abdous, 1998, p. 23). As Salomon (1998, p. 7) noted, this dysfunctional gap between technology and pedagogical principles is an unprecedented moment in human history. The traditional custodians of knowledge, the teachers and gurus, now find that the possibilities of technology were outstripping advancements in pedagogical and psychological theory. Yet the

need to harness technology by providing guidance, reflective discourse, and feedback is greater than ever (Bracewell et al., 1998, p. 23; Ng'ambi & Johnston, 2006, p. 246). Critically important for this chapter is that the Malaysian Armed Forces (MAF), the future employer of the NDUM graduates, and the university itself may need to consider various aspects of a modern military learning where e-learning technologies can effectively and efficiently help future military officers to learn. Furthermore, the Malaysian government, along the lines of its Vision 2020,<sup>7</sup> requires the MAF to capitalize on advances in ICT. This is to help foster knowledge-based armed forces. Accordingly, the former Chief of the Defense Forces<sup>8</sup> stressed the importance of technology and technologically adept forces to face the challenges of the 21<sup>st</sup> century, which come in the form of traditional and asymmetrical threats. In the advent of ICT and IT, there is an urgent need for the MAF to generate new approaches and tighten its military strategies by incorporating ICT and IT. This is a crucial step and the elite military university, the NDUM, has the biggest challenge to prepare its future military leaders with the right skills, including English language competency.

Because of the pressure by the parent services of the NDUM graduates, it is inevitable that e-learning technologies for language acquisition will be one of the most important agendas in the next few years. To prepare for this shift in language learning, many aspects should be considered by the authorities at the NDUM. Firstly, language teachers or instructors must be given appropriate training to facilitate cadets' language learning. They should know their new roles in using e-learning technologies; they no longer have the sole power in language learning classes because cadets need to assume more responsibilities for their language acquisition. Secondly, the institution needs to design and develop their language courseware because of three factors: (a) to suit the socio-cultural background of cadets; (b) to suit the language requirement of cadets, which

is different from other civilian students; and (c) to ensure that a courseware must have both the learning and activity materials. Thus, based on all these factors, the ready-made courseware may not appropriately serve the military university. In addition, besides sending teaching staff for critical training in instructional design, the parent services of cadets should also be actively involved in the planning and monitoring of the learning process so that their requirements for cadets' language proficiency are met. Thirdly, the combination of other emerging technologies such as Web-based learning provides opportunity to create a blended language learning and teaching atmosphere that is highly interactive, meaningful, and student centered (Kirkley & Kirkley, 2005, p. 42). This implies that when the language learning environment is technologically supported and student centered, cadets get more opportunities to use language in real-life situations. Coupled with a language courseware that is also utilizing authentic (military) content, cadets are exposed to their future career concurrently. It is also a practical assumption that digital technologies will not replace the traditional method of language learning. Therefore, there is a need to promote a balanced and mixed approach between e-learning and F2F sessions for language acquisition.

## **CONCLUSION**

While other institutions have experimented with a *proper* language courseware and may be successful at that, the NDUM cannot simply jump on the bandwagon without considering its unique learning environment. In deciding whether to use or adapt any language courseware, the administration and language instructors must consider several concerns ranging from financial to technical constraints. However, this chapter has demonstrated that an NLLC can still be used to teach the target language given appropriate modifications and creative implementations. Only

when the NDUM has adequate resources can a thorough need analysis be conducted. A need analysis for e-learning technologies does not have to be necessarily for language learning only; the analysis can cover every academic and military course at the military university.

To conclude, the task of stimulating creative and reflective learning and thinking in the military training institutions of the world is no less important than generating these learning environments in civilian schools, colleges, and universities. If Plato's ideas about 'guardianship' are still relevant today, then these creative impulses are even more important in the military sector than in the civilian sector. If 'guardianship' has been replaced by more cynical military motives including domestic oppression, international imperialism, superpower ambitions, and oligarchic tendencies, then the need for a creative learning environment in the armed forces takes on even greater importance. It is a reasonable hope that creative forces are also forces for building a better and less violent world. For all these reasons, providing cadets with viable language learning options such as e-learning technologies can help them to become more communicatively competent, and thus more understanding in dealing with global security challenges.

## **ACKNOWLEDGMENT**

This chapter uses the CD-ROM developed for the Department of Defense (DoD) of the Australian government. It is under the assumption that the author must not make profit from the courseware, and the author only uses it for educational purposes. Any unfavorable findings in the survey are not due to the courseware; the courseware was not designed for a language learning instrument. The author would also like to acknowledge the NDUM and the cadets who were involved in the pilot language learning project.

## **REFERENCES**

- Alonso, F., Lopez, G., Manrique, D., & Vines, J.M. (2005). An instructional model for Web-based learning education with blended learning process approach. *British Journal of Educational Technology*, 36(2), 217-235.
- Australian Government. (2002). *Military history South Pacific campaign*. CD-ROM, Department of Defense and Catalyst Interactive, Australia.
- Bates, A.W. (2001, April). *The continuing evolution of ICT capacity and the implications for education in commonwealth countries*. Commonwealth of Learning: Virtual Education Follow Up Study.
- Beckett, H. (2004). Blend skills for a better class of e-learning. *Computer Weekly*, (January 20).
- Blinco, K., Mason, J., McLean, N., & Wilson, S. (2004, July 19). Trends and issues in e-learning infrastructures development. Retrieved November 24, 2004, from <http://www.educationau.edu.au/papers/altilab04-trends-issues.pdf>
- Bonk, C.J., & Dennen, V.P. (2003). Frameworks for research, design, benchmarks, training and pedagogy in Web-based distance education. In M.G. Moore & W.G. Anderson (Eds.), *Handbook of distance education* (pp. 329-346). Mahwah, NJ: Lawrence Erlbaum.
- Bracewell, R., Breuleux, A., Laferrière, T., Benoit, J., & Abdous, M. (1998). *The emerging contribution of on-line resources and tools to classroom learning and teaching*. Burnaby, Canada: Tele-Learning Network.
- Carter, D. (1983). Some propositions about ESP. *The ESP Journal*, 2, 131-137.
- Gan, S.L. (2000). *IT & education in Malaysia*. Kuala Lumpur: Longman.
- Henner Stanchina, C., & Riley, P. (1978). Aspects of autonomous learning. *ELT Documents 103: Individualisation in Language Learning*, 75-97.

- Holder, L., & Murray, W. (1998). Prospects for military education. *Joint Force Quarterly*, 18(Spring), 81-90.
- Hutchinson, T., & Waters, A. (1987). *English for specific purposes: A learning-centred approach*. Cambridge: Cambridge University Press.
- Hymes, D. (1985). On communicative competence. In J.B. Pride & J. Holmes (Eds.), *Sociolinguistics* (pp. 269-293). Harmondsworth: Penguin.
- Juhary, J. (2001). E-learning in Malaysia: A pilot study. In J. Mukundan (Ed.), *Reflections, visions & dreams of practice* (pp. 175-181). Kuala Lumpur: ICT Learning Sdn. Bhd.
- Jupp, T.C., & Hodlin, S. (1975). *Industrial English: An example of theory and practice in functional language teaching*. London: Heinemann.
- Kirkley, S.E., & Kirkley, J.R. (2005). Creating next generation blended learning environment using mixed reality, video games and simulations. *TechTrends*, 49(3), 42-53.
- Larsen-Freeman, D. (2000). *Techniques and principles in language teaching*. New York: Oxford University Press.
- Lim, T.S., & Ndubisi, N.O. (2003). E-learning adoption: Initial concerns and excitements. *Proceedings of the ASAIHL Conference 2003* (pp. 25-32), Center for Corporate and International Relations, UMS Sabah.
- Loveless, A., Devoogd, G.L., & Bohlin, R.M. (2001). Something old, something new...: Is pedagogy affected by ICT? In A. Loveless & V. Ellis (Eds.), *ICT, pedagogy and the curriculum* (pp. 63-83). London: Routledge/Falmer.
- Marginson, S. (2004). Don't leave me hanging on the anglophone: The potential for on-line distance higher education in the Asia-Pacific region. *Higher Education Quarterly*, 58(2-3), 74-113.
- (Admiral Tan Sri Dato) Mohd Nor, M.A. (2005, September). The chief of the Malaysian Armed Forces (MAF) opening address/speech. *Proceedings of the 72<sup>nd</sup> Parade of the Malaysian Armed Forces Day Celebration*.
- Ng'ambi, D., & Johnston, K. (2006). An ICT-mediated constructivist approach for increasing academic support and teaching critical thinking skills. *Educational Technology & Society*, 9(3), 244-253.
- Peirce, W. (2003). Strategies for teaching thinking and promoting intellectual development in on-line classes. In S. Reisman, J.G. Flores, & D. Edge (Eds.), *Electronic learning communities: Issues and practices* (pp. 301-347). Charlotte, NC: Information Age.
- Plato. (1998). *The republic* (trans. by R. Waterfield). Oxford: Oxford University Press.
- Prabhu, N. (1983). Procedural syllabuses. *Proceedings of the RELC Seminar*, Singapore.
- Ravichandran, T. (2000). Computer Assisted Language Learning (CALL): In the perspective of interactive approach—advantages and apprehensions. *Proceedings of the National Seminar on CALL Conference* (pp. 82-89), Chennai, India.
- Richards, J.C., & Rodgers, T.S. (2001). *Approaches and methods in language teaching*. Cambridge: Cambridge University Press.
- Roschelle, J., Pea, R., Hoadley, C., Gordin, D., & Means, B. (2001). Changing how and what children learn in school with computer-based technologies. *The Future of Children*, 10(2), 76-101.
- Salomon, G. (1998, May). Novel constructivist learning environments and novel technologies: Some issues to be concerned with. *Proceedings of the 2nd International Harvard Conference on Internet and Society*.
- Stiehm, J.H. (2002). *U.S. Army War College: Military education in a democracy*. Philadelphia: Temple University Press.

Sulong, A.D., Abu Bakar, K., Ibrahim, D.Z., & Embi, M.A. (2002). Students' perceptions on on-line learning in Malaysian universities. *VirTEC Journal*, 2(2), 51-60.

Trinidad, S. (2003). Working with technology-rich learning environments: Strategies for success. In S.M. Khine & D. Fisher (Eds.), *Technology-rich learning environments* (pp. 97-113). Hackensack, NJ: World Scientific.

Woodill, G. (2004). *Where is the learning in e-learning? A critical analysis of the e-learning industry* (white paper). Retrieved January 4, 2007, from <http://www.operitel.com>

Yunus, A.G. (1995). The Malaysian Armed Forces and Vision 2020. In A.R.A. Baginda & R. Mahmood (Eds.), *Malaysia's defense & foreign policies* (pp. 1-9). Kuala Lumpur: Pelanduk.

## KEY TERMS

**Courseware:** Computer software and associated materials designed for educational or training purposes. It can be in a CD-ROM format or networked.

**E-Learning Technologies:** E-learning refers to computer-enhanced learning; it promotes learning anywhere, at any time, and at students' own paces using the Internet, CD-ROM, and Web-based materials. E-learning can also be in a synchronous or asynchronous format. There is currently a range of technologies able to support the pedagogic and instructional strategies for e-learning, including authoring tools and programs.

**Guardians:** In the military context, this refers to a group of people who guard and protect a nation; military personnel.

**Language Acquisition:** When language is learned through interaction with the environment, rather than being taught directly; unconscious

learning. However, some scholars use it interchangeably with language learning.

**Military Learning Environment:** An environment that combines academic and military pursuit concurrently. The academic training is also conducted in a military milieu.

**Non-Language Learning Courseware (NLLC):** A courseware originally designed and developed for purposes other than language learning. However, with creative modifications, an NLLC can help students to acquire the target language.

**Target Language:** The language that non-native speakers are in the process of learning.

## ENDNOTES

- <sup>1</sup> Guardians are mentioned throughout Plato's *Republic*, but the focus on them is in two chapters titled "Primary Education for the Guardians" and "The Guardians' Life and Duties."
- <sup>2</sup> The author is a communication technology lecturer at the NDUM.
- <sup>3</sup> The author obtained the CD-ROM when she participated in the Simulation Technology Conference 2006 at Melbourne, organized by the Simulation Industry Association of Australia.
- <sup>4</sup> The author was assisted by an instructional designer and a language instructor in preparing, designing, and developing a simple language activity courseware. Their participation in this project was voluntary. *Dreamweaver 4* and *Macro Flash 5* were used to develop the activities.
- <sup>5</sup> Vision 2020 is the brainchild of the former Prime Minister Mahathir Mohammad. It envisions Malaysia as a fully developed nation by the year 2020, developed not only economically but also politically, socially, and spiritually.

- <sup>6</sup> See Bonk and Dennen (2003, p. 330); Peirce (2003, p. 304); Trinidad (2003, p. 98); Loveless, Devoogd, and Bohlin (2001, p. 79); Roschelle, Pea, Hoadley, Gordin, and Means, (2001, p. 79).
- <sup>7</sup> Vision 2020 has become the guide for nation building in Malaysia. Through the nine challenges presented, no discussion and analysis is given to the importance of the armed forces; however it is assumed that the tenth unwritten challenge is “the defense of nation and the security of the people” (Yunos, 1995, p. 3). This is because without the political and economic stability, which has a direct relation to military capability, all the other nine challenges cannot be realized.
- <sup>8</sup> The speech delivered by the Chief of the Defense Forces, Admiral Tan Sri Dato Mohd Nor, in conjunction with the 72<sup>nd</sup> Parade of the Malaysian Armed Forces Day Celebration, September 16, 2005.