Rozdział 14

The reactor strategy in implementing e-education for the Northern Caribbean University, Jamaica

Ilona Mianecka

Philipps-Universität Marburg,
Wilhelm-Röpke-Straße 6D, 35032 Marburg, Niemcy, e-mail: ilona.mianecka@wp.pl

1. Introduction

E-education commonly defined as the *"electronically enhanced"* education, is introduced in many tertiary institutions around the world. The reasons for the implementation of this type of education are manifold. In the case of the Northern Caribbean University (NCU) in Mandeville[1], Jamaica, the main aim at adopting the e-learning approach seems to be the general improvement of its teaching methods. Moreover, one of the desired objectives of this University is to keep up-to-date in its academic field. The four months experience in the project called *"Development and Expansion of E-Learning and E-Teaching Programs"*[2] at the Northern Caribbean University in Mandeville has allowed the author to describe the implementation of e-learning studies at NCU in this paper, using the example of the Department of English & Modern Languages. Regardless of the presentation of data on this case the author is going to consider the question about the strategy adopted by the NCU during the process of implementation that has been analyzed in terms of theory based on the strategic role of innovation, formulated by Miles and Snow (1978). By analyzing the concrete steps of implementation of e-learning at NCU and investigating what type of strategy developed by Miles and Snow (Prospector-Analyzer-Defender-Reactor) has been applied, the main consequences for the further development of the theory of the adaptation strategy for innovation can be identified.

2. The current educational state of NCU

Northern Caribbean University in Mandeville, Jamaica, is a private, English-speaking University that is held and supported by the Jamaica Union Conference (JAMU) of

---

[1] The Official Website of the University: www.ncu.edu.jm/□

[2] The project entitled „*Development and Expansion of E-Learning and E-Teaching Programs"* has been introduced by the Department of English and American Studies of the Philipps-Universität Marburg (PUM) in 2010 and is constantly realized at the Northern Caribbean University in Mandeville, Jamaica.

Seventh-day Adventists. This liberal-arts, higher-education institution, established in 1907, was granted university status by the Jamaican Government in 1999. Although NCU has lots of professional programs in many areas of disciplines to offer, they are still based on the traditional teaching methods. This is mainly due to the fact that the general state of educational development in Jamaica is still slow in comparison to the other universities in the USA or Western Europe. According to the Human Development Index (HDI), this country – with a rank of 79 out of 187 measured nations, is identified as a developing country which means that there are still many challenges with respect to the country's infrastructure, financial support, new technology or education (Human Development Reports Official Website 2012). The report introduced by Professor Robin Middlehurst and Steve Woodfield (2003: 2) pointed out that although the Jamaican institutions in certain spheres of government administration, professional, and business environment, especially those which are connected with American or European networks, have a reasonable Information and Communication Technology (ICT) infrastructure (GPI, 2002), the general usage of ICT is still poorly developed in this country. Nevertheless, in the view of the fact that the cable television and broadband are developing throughout Jamaica, home use of the Internet is expected to increase as well (British Council, 2002). It was also claimed that the use of ICT is relatively good developed in most higher education institutions in this country.

Although Northern Caribbean University was concentrated on the conventional methods of delivering learning from the very beginning of one's education, recent improvements of new technologies and better accessibility of the Internet in this country caused, that the Northern Caribbean University decided to satisfy more needs of its students by giving them a possibility to study with the use of e-learning. Moreover, because of the influence of the United States concerning the centralization of education policy that is more and more noticeable in Jamaican higher education institutions, all of the universities and colleges in this country try to raise standards by introducing more market-oriented degrees and innovative solutions, such as web-based education. All these factors have contributed to the implementation of e-education concept into the NCU program of study.

3. The main phases of implementing e-education for NCU

The case analysis below shows the most important steps of the implementation of e-learning studies at NCU. To start with, this University began to use a software platform called the AEorion Learning Management System (AEorion LMS) that is now integrated into its organizational and technical environment. Although there are many advantages of this platform, the designers of the AEorion LMS are still improving its functions in order to satisfy the needs of the NCU students and the academic staff. During recent years, the NCU management also included the possibility of online distance learning into its curriculum. In this way, the NCU students have an opportunity to study particular courses via the Internet. This is not, however, the end of the technological developments at this University. As a final case, the international program cooperation

between NCU and Philipps-Universität Marburg (PUM)[3], Germany, will be introduced. This program is a chance for the Northern Caribbean University to gain more experience in the field of e-learning and web technology. It shows how to use and manage e-learning courses in a proper and effective way.

3.1. AEorion Learning Management System

In order to maintain a similar level to other Jamaican universities, such as: University of the West Indies or University of Technology, the NCU management decided to invest in new technologies. The result was the creation of the AEorion Learning Management System in 2007 that is a trademark of NCU. The intent behind the design of this system is that this secure, web-based training and e-learning application provides ease of use for instructors, students and the university staff. The creators of this system pointed out that they designed it mainly for the strategic plan, so they could spread education as far as possible. AEorion LMS facilitates interaction between lecturers and students, as well as, it supports the NCU members in the administration and coordination of subjects, because it is available everywhere and all the time. The University Information Systems Services Department of NCU - as a designer and maintainer of AEorion LMS, claims that this application distributes static content such as course outlines, announcements, lecture notes and alerts. Moreover, this system allows to use interactive tools such as discussions, whiteboard, live chat, and online assessments (Northern Caribbean University Official Website, 2011). The first picture in this paper shows the AEorion LMS login web page which is created for the NCU students and the academic staff. After writing the ID number and the password the user can start to study with the platform.
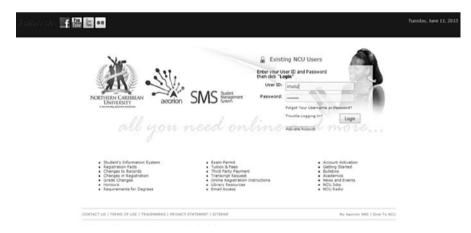

Figure 14.1. The AEorion LMS login web page for NCU

Although the AEorion products support more administrative tasks and are more teacher-centric, the particular attention was paid to design them with culturally contextual elements. The AEorion system enables students to apply and register online. It

---

[3] The Official Website of the University: http://www.uni-marburg.de/

helps to assemble courses for learning objects and to handle roster operations. Moreover, this Learning Management System has a feature of sending messages and administering various forms of students' assessments.

The second picture presents the AEorion LMS course administration panel for the lecturers. In here the NCU teachers can create their courses, control students' work, check students' tasks and finally give the grades. The clear structure of the site seems to be easy to use by all of the academic members of the University. If any problems appear while preparing a course unit, there is always a possibility to use the Help button. In here the step-by-step instruction will be provided.

After conducting several interviews with the NCU academic members in 2011[4], it can be concluded that since the AEorion system has been designed, there are sometimes problems with its good utilization by students and lecturers of NCU. Teachers claim that despite the previous training of how to use this LMS, they are not able to benefit fully from the AEorion application. Most of them are used to teach traditionally and they do not feel the need of doing it online.
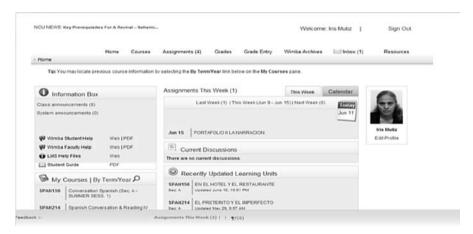

Figure 14.2. The AEorion LMS course administration site for NCU lecturers

Although AEorion interface is very user-friendly, some of the lecturers of NCU are still afraid that the use of this software causes the necessity of working extra hours and even breaking into their private time considerably. The generation gap between students and lecturers is very noticeable here, as well. The first mentioned group has more experience in terms of new technology and the Internet, so these people could adapt faster and easier to the new Learning Management System at NCU. However, the lecturers of Northern Caribbean University - with the statistical average age of fifty, need more time and motivation in order to learn how to use this system effectively in their courses.

---

[4] All the interviews concerning new technologies and the e-learning experiences at the Northern Caribbean University were conducted in October and November 2011 by Ilona Mianecka in the framework of the MA project entitled: *"E-Learning at NCU: Organization, Expectation and Implementation"*. The whole project is available on: http://www.jamaica.roni.pl/.

3.2. Online Distance Learning

Undoubtedly, the development of AEorion Learning Management System has contributed to the decision of the NCU leadership to create several online distance learning courses in different areas of disciplines. In case of the Department of English and Modern Languages there are e.g. American Literature Course, Spanish Language Course (see: Figure 14.3) and French Language Course. The general idea introduced by NCU is that there should be at least one subject from each department throughout the University that uses LMS and online components as a basic method of delivering knowledge to students.

Figure 14.3. The AEorion LMS Spanish language course for NCU students

One unit from the Basic-Level Spanish Language Course for the NCU students is exhibited in figure 3. This virtual session is divided into the overview, reading assignment and the listening task. Students have to download particular worksheets, fulfill them and send back to the instructor. There is a limited time to do all the tasks. Usually students have one week time to study the unit and prepare homework.

There is even one graduate program at NCU which would be considered as permanently online. The Master of Science in the Information Systems utilizes the LMS to the fullest. It should be noticed that the general results of this course degree with respect to the effectiveness and satisfaction of the students are successful. When it comes to the other faculties of NCU, however, the situation changes.

It seems that there is still a problem with too conventional perceptions of online distance learning that has been described as a *"second chance education"* with lower status, just as it was in the case of distance learning in the past. Then it has been observed that this view originates more from the academic staff rather than students. A large number of lectures in Jamaican Higher Education institutions still consider distance education as *"second best"*. This way of perception influences its expansion as an alternative choice to established qualifications (Middlehurst, Woodfield, 2004: 25).
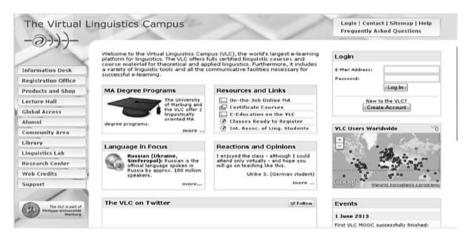
Figure 14.4. Virtual Linguistics Campus Homepage

Most teachers from the Department of English and Modern Languages are more old-fashioned and use traditional teaching methods, such as pencil-and-paper tests or seatwork. Both lecturers and students need to have more encouragement and motivation to use new technologies in their teaching experiences. Another aspect that may cause a failure of delivering online lessons at NCU, is that instructors have to teach online differently than they are used to do face-to-face in the classroom. An effective online lecturer should be available all the time, give complete feedback, solve all of the technical problems indicated by learners and finally be perceived as a source of knowledge in this particular domain.

3.3. The Exchange Program

To understand the conception of e-learning better, the Northern Caribbean University started to cooperate with more advanced and experienced universities in this respect. The project entitled "*Development and Expansion of E-Learning and E-Teaching Programs*", introduced by the Department of English and American Studies of the Philipps-Universität Marburg (PUM) in 2010, is constantly realized at NCU. The main purpose of this program is to increase the quality of the NCU studies program, as well as, to promote the knowledge and the use of e-learning at this University. This initiative is divided into several particular phases which are implemented once in a year.

In 2010, the first phase called *"Development and Expansion"* has been conducted by Natalie Kiesler, the first exchange student from the Philipps-Universität in Marburg and the representative of the Linguistic Engineering Team of the Virtual Linguistics Campus (VLC) at NCU. This particular well-developed virtual platform for linguists has, inter alia, many e-learning courses to offer. The goal of this phase was to introduce one of the VLC course to the lecturer and students of the Northern Caribbean University, to assist in the proper use of the content available in this VLC course and finally to assess the progress of this course.

Figure 14.5. (left) Mario Osvaldo Castillo Rangel, PhD Lecturer in History of English, British Literature and Applied Linguistics at NCU and the coordinator of the exchange program; (right) Ilona Mianecka, PhD student at the Philipps-Universität Marburg, the academic assistant and the VLC representative at NCU

The next picture in this paper shows the homepage of the Virtual Linguistics Campus. Since the VLC is organized into a free zone which is available for any Internet user and into a protected zone which requires specific login details, in order to use this linguistics platform to the fullest, the NCU students had to create their accounts first and then login into the system.

The second phase *"Planning Execution"*, implemented in Winter Term 2011, aimed at organizing workshops and educating NCU instructors with respect to web development and e-learning technologies. There were four thematic segments of the meetings conducted by Ilona Mianecka – the second exchange student at NCU, where the first one was called *"Planning a Website"*, then *"Auto Engineering"*, *"Graphics Design"* and finally *"Multimedia Concepts"*. In general, the purpose of these workshops was to educate students and lecturers of Northern Caribbean University how to make use of the Web and how to facilitate courses with e-support.

Figure 14.6. (left) Maribel Alao, MA Instructor at the Department of English and Modern Languages; (right) Ilona Mianecka, PhD student at the Philipps-Universität Marburg and the VLC representative at NCU

Figure 14.5 and 14.6 exhibit several participants and the instructor of the workshops. Apart from working with the VLC platform, the participants of the workshops in this phase had a final task to create their own, well-organized websites. One of the

requirements in this task was, that these web pages should serve as one of the educational elements used by the lectures in their in-class meetings. At the end of the last workshop, each of them received a commemorative certificate of participation in the classes.

For the year 2012 it was planned to perform the next phase called *"Evaluation and Execution"*. The next academic assistant from PUM was responsible for introducing the concept of the *"Inverted Classroom"* to the lecturers and students of NCU. In addition to that, she gathered the materials and videos from the particular course at NCU which were later available online as an inverted session. This solution called *"e-lecture"* began to be used at the Philipps-Universität in Marburg and it gained the great approval among students and lecturers.

This exchange program is a great opportunity for both PUM and NCU students who are willing to broaden knowledge in the field of web development, e-learning and linguistics. There are also many mutual benefits for these two Universities. The Philipps-Universität in Marburg has access to promote its products in the world and to get information about other languages (in this case Jamaican Creole variations) that is used in the further development of its e-learning platform. According to the official agreement signed by these two Universities, the result of the project *"Development and Expansion of E-Learning and E-Teaching Programs"* should be to create a common BA program called *"Caribbean Languages and Culture"* in the near future (2016).

However, as far as the VLC top management is constantly working on their product and defines its strategic objectives once in a while, the NCU leadership has difficulties to clearly articulate the strategy in respect of e- learning implementation.

4. The strategy of innovation at NCU

It has been already proved in many research that the realization of a new idea in the organization must be supported by a concrete strategy. It is recognized that implementing e-learning in the organization can be devoted toward different strategical aims (Woźniak 2009). Moreover, it is a well known view that if organizations adopt coherent and distinctive strategies that match to their internal structure, processes and their environment, they will generally have better performance (Donaldson, 1996). Since all of the initiatives about e-education at NCU are more based on uncertainty and just a desire of trying and gaining experience, this way of performing by the organization can be compared to one of the strategic concepts that was described by Miles and Snow (1978). Their publication called *Organizational Strategy, Structure, and Process* has had great influence on the fields of strategic management and organization theory. In their work, the general characterization of management's response to changes in technology or markets has been introduced. Miles and Snow classified companies within a given industry into four groups, i.e. defenders, prospectors, analyzers and reactors. In short, the first one concerns companies that seek out new markets and new opportunities. They are oriented toward constant growth and risk taking. An organization that follows

a defender strategy is more focused on protecting its markets from competition and maintaining stable growth. The third type of strategy concerns companies that maintain market share and seek to be innovative, but generally not as innovative as organizations that use a prospector theory. Finally, institutions that follow a reactor strategy have an inconsistent strategic approach and usually drift with environmental events. According to these researchers, the reactor model of strategy seems to be the worst one out of three other types. They claim, that a reactor rarely changes the way of performing until compelled to do so by environmental demands" (Miles & Snow, 1978, p.29). Similar statement has been made in the field of educational business, where in many situations training companies are ready to change their knowledge management's strategies mostly because of the external pressure from their clients (Woźniak 2006).

Although the decision of the NCU leadership about implementing the AEorion LMS was good, the top management simply copied this idea from other universities. A lack of coherence concerning the way of functioning by the AEorion LMS in this higher education institution caused that the further development of this platform was random and dependant on the NCU academic staff. Moreover, the international cooperation between NCU and PUM was also a random action proposed by one of the lecturer from the Department of English and Modern Languages at NCU. In this regard the NCU leadership noticed a random chance of giving the opportunity to get free of charge experts who help to create tools that facilitates accomplishing the additional strategic objectives. In this point, all of the examples above show that this organization follows a reactor strategy.

5. Change from reactor into analyzer approach

Nonetheless, the main consequences for the development of the theory of the adaptation strategy for innovation would certainly be noticed, if the NCU leadership concentrates more on creating a coherent strategy for e-learning implementation. Second of all, the cooperation between the Northern Caribbean University and Philipps-Universität in Marburg should be closer, if the University in Mandeville wishes to find the way to position the educational offer of the Department of English and Modern Languages worldwide. The fact is, that only a well-conducted strategy may promote some individual university's departments and contribute to their greater reputation. Since the NCU top management claims that they want to make the e-learning concept more efficient in their University, they simply have to change the strategy from the reactor into analyzer. The real evidence of the implementation of the analyzer strategy would be, most of all, that e-learning approach at NCU is patterned on the Virtual Linguistics Campus. This concept can be realized at the Department of English and Modern Languages to the fullest. Since the VLC offers lots of courses in the field of linguistics and English Language, there is just a need from the NCU academic staff to learn how to use the platform in the proper way. Second of all, there should be a final development of an online BA in „*Caribbean Languages and Culture*" in the near future that should bring financial benefits to the University already.

Summary

Nowadays, there is an increasing emphasis on the implementation of e-learning into a growing number of organizations. This testifies to the knowledge of modern market, as well as, to the prestige of the particular enterprise. Higher education institutions are a typical example of adopting e-learning into their internal training and teaching systems. The reason for this is, above all, that e-learning applications offer many advantages from an organizational point of view. Moreover, students and lecturers find a lot of positive aspects in using e-learning tools.

The NCU leadership started to consider implementing an e-education solution into the University structure, because they want to keep up with the times. They perceive e-education as a new way of delivering knowledge that is more accessible. This private institution of tertiary education has to be constantly focused on the changing market and it feels its duty to satisfy the growing needs of its clients and funders. For the NCU students, studying through e-learning and with its components would shape their own learning style, as well as, give them more flexibility and convenience. For the NCU leadership and funders, the e-education implementation can be a chance to create overseas online distance courses, to reduce costs of being unproductive in a classroom, and finally to reduce time of students' assessment. However, in order to achieve these goals, the NCU management should work more on their strategic plan.

Right now, this University in Jamaica follows the reactor strategy which means, that this organization does not seek to be innovative and just waits for the environmental events to follow, if needed. Recently, the NCU executive management claims, however, that they want to create more coherent strategy concerting e-education. Although there is already one e-learning initiative taken place at the Northern Caribbean University within the framework of the exchange program already described in this paper, the NCU leadership and academic staff do not use this chance to the fullest. In order to change the strategy concept from reactor into analyzer, it is needed to concentrate on better and consistent plan for e-learning implementation, work closely with the Philipps-Universität in Marburg and the Virtual Linguistics Campus Team and finally to find the way to position the educational offer of some NCU departments such as the Department of English and Modern Languages, outside the motherland. Upcoming events in the future will show whether such a change in the NCU strategy concept will be successful.

Literature

1. Donaldson, L.; "For positivist organization theory: Proving the hard core."; Sage: London; 1996.
2. Handke, J., Rangel Castillo, M., Devonish, H.; "Project Proposal: Development and Expansion of E-Learning and E-Teaching Programs"; Philipps-Universität Marburg; 2004.
3. Kiesler, N.; "Final Report. Report submitted for the course *Introduction to Linguistics*";Philipps-Universität Marburg; pp. 3-13; 2010.

4. Mianecka, I.; "E-Learning at NCU: Organization, Expectation, Implementation"; 2011; <http://www.jamaica.roni.pl>.

5. Miles, R.E., Snow C.C.; "Organizational strategy, structure, and process"; McGraw-Hill Book Co.; New York; 1978.

6. Middlehurst, R., Woodfield, S.; "Human Development Report 2011: Sustainability and Equality: A Better Future for All."; Macmillan Publishers Limited: New York; 2003.

7. Middlehurst, R., Woodfield, S.; "Human Development Report 2011: Sustainability and Equality: A Better Future for All."; Macmillan Publishers Limited: New York; 2004.

8. Northern Caribbean University Official Website; 2013; < http://www.ncu.edu.jm/>.

9. Philipps-Universität Marburg Official Website; 2013; <http://www.uni-marburg.de/>.

10. The Journal of Psychology; "Organizational Strategy and Employee Outcomes: A Person-Organization Fit Perspective"; 144(2); pp. 145-161; 2010 .

11. Undergraduate Bulletin (2010-2012) Northern Caribbean University. Mandeville.

12. Woźniak, J.; "e-Learning w edukacji i biznesie."; Wyd. Akademickie i Profesjonalne: Warszawa; 2009.

13. Woźniak, J.; „Zarządzanie wiedzą w firmie szkoleniowej."; Wyd. OWSIiZ: Olsztyn; 2006.