PILOT IMPLEMENTATION OF ONLINE LEARNING IN THE PHILIPPINES: CHALLENGES AND INSIGHTS

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ABSTRACT

Online learning has become widespread in higher education institutions. Colleges and universities are faced with the challenge of shifting from traditional teaching to an online mode. This paper explores factors that may impede or facilitate the sustainability of online learning. Components of the program studied include management and administration, manpower resources, infrastructure and delivery system. The implementation factors were described and explained. Data were gathered qualitatively from field notes, observations and interviews, the responses of online instructors and learners in four survey questionnaires. Results revealed that online learning is a highly complex process. Its program components must be carefully studied before considering a wide-scale implementation. Adequate preparation is essential to ensure quality learning. Issues, challenges and factors affecting the program were identified. The outcomes provide useful information for institutions planning to embark into this system of education. Further investigation may be undertaken to look into each component’s overall impact on the program’s sustained practice.

Keywords: online learning, distance education, e-learning, online education

INTRODUCTION

A shift towards online learning has become widespread in many universities worldwide, spurred by rapid technological advancements. This global development signifies that traditional, face-to-face education no longer suffices. Hence, a blend of residential and online learning is fast becoming the norm, if not a fully online instructional delivery system. But what does it take for higher education institutions, especially those in developing countries, to establish online education? Faced with multiple challenges, how do institutions introduce the needed transformations to make them more relevant to the times? In 2008, Philippine Normal University (PNU), a teacher education institution, embarked on a technology-enhanced program which was attempted in the past but was not sustained.

This paper explores key factors affecting the implementation of the program. It specifically aims to (1) identify the components that facilitate the program’s success; (2) determine the challenges that may impede its operation; and (3) explain insights gained from the actual program implementation.
This study adapts the definition of online learning by Ally (2008) who describes it as “the use of the internet to access learning materials; to interact with content, instructor, and other learners; and to obtain support during the learning process, in order to acquire knowledge, to construct personal meaning, and to grow from the learning experience”. (p.17) This implies the use of technology in teaching and a gap between the teacher and the learner. Online learning is also synonymous to terms such as e-learning and distance education. The Philippine e-Learning Society (n.d.), defines e-learning as “all technologically supported learning, using an array of teaching-learning tools that utilizes electronic media such as phone bridging, audio and videotape, video teleconferencing, satellite broadcast, and the more commonly recognized forms of web-based training or computer-aided instruction also commonly referred to as online learning”. Newby, Stepich, Lehman & Russel (2006) describe it as “an organized instructional program in which the teacher and learners are physically separated by time or by geography”. (p.307) Lever-Duffy, McDonald, & Mizell (2003) hold the same view. Heinich, Molenda & Russell (1999) note that in this mode, there is limited access to the teacher and other learners. Online learning is therefore acquired through technological means, using the internet, a computer and web-based tools. Technology bridges the gap between the teacher and the learners. In this study, online learning, distance education and e-learning are used interchangeably.

THE CONTEXT

Global Educational Trends

According to Gandhe (2009), “distance education is the need of the 21st century.” (p.52) Increasing population and cost of education, however, makes it impossible for many people today to acquire the basic right to an education. Almost a billion people in the world are illiterate (IRA, 2013). The advent of the Information and Communication Technologies (ICTs) is driving the new educational paradigm. It has made education more responsive and accessible. With its power to distribute education to a greater mass of people, online learning, is the answer to many problems besetting underdeveloped countries that high quality education can solve. Jones (2002) sees technology as a tool to deliver all kinds of courses at all levels, including corporate training. In many countries in North America, Western Europe and Australia, the demand for higher education has increased tremendously in the last two decades or so and it is believed that ICTs have the potential to reach more countries worldwide. Online learning has become quite popular in higher education institutions (McKenzie, B, Mims, N, Bennett, E. & Waugh, M., 2000).

National Thrusts and Policies

Recognizing the value of distance education and the ability of ICTs to make education accessible, the Philippine government through the Commission on Higher Education (CHED), created national policies to ensure that distance education is delivered appropriately, and quality of education through this mode is assured. In 1995, CHED Memorandum Order No.27 specified the requirements for Distance Education (Librero, 2007). Then by 2000, CHED Memorandum Order No. 35, policies and guidelines on open learning and distance education was updated and implemented in 2001. It required that institutions offering distance education must (1) be CHED accredited, guided by essential components of open and distance learning; (2) have institutional
commitment to ensure quality and sustainability of the program (CMO no. 35 s. 2000). In 2002, a moratorium in opening of new programs offered through open learning and distance education was applied. Institutions that failed to satisfy the CHED requirements based on CMO no. 35 s. 2000 were not allowed to operate (CMO no. 5, s. 2002). In 2003, the Philippine government was recognized for its ICT in education policies by the UNESCO (Hedberg and Lim, 2004, cited in Bantayan, 2007). The CHED Memorandum No. 6, series of 2003 on Policies and Guidelines on Transnational Education was promulgated in recognition of the (1) globalization; (2) the benefits of ICTs; and (3) to address the needs for a more accessible but high quality education for all (CMO no. 6 s. 2003). By 2005, the most complete set of policies on distance education programs with guiding principles were established through CMO no. 27, series of 2005 (Librero, 2007, p. 49). It superseded the earlier policy in 2002. It specified the qualifications of institutions, institutional management commitment, components of distance education, requirements and accreditation process (CMO no. 27 s. 2005). In 2008, the University of the Philippines Open University, the Center of Excellence in Distance Education, offered for the first time, fully online programs.

Distance e-learning in the Philippines, nonetheless, is believed to lag behind many industrialized countries primarily because of the lack, if not poor ICT infrastructure, investment and pedagogy applicable to many Filipinos (Kim et al., 2007). This is particularly true for many universities in the country. Hence, out of 2,313 Higher Education Institutions (HEIs) in the Philippines, 1,652 of which are private colleges and universities and 661, state universities and colleges (CHED, 2013), only 17 have been monitored and evaluated by the Commission on Higher Education. Thus, only .73% as of 2002-2004 (CHED, 2005) offering distance learning in higher education passed through the CHED’s monitoring and evaluation.

Demands for Institutional Transformations

Considering the global trend in education and the Philippine government’s recognition of the importance of open learning and distance education, HEIs like PNU must keep pace with educational developments to continue to be relevant. Recently, a Philippine law, the Open Learning and Distance Education Act of 2011 was legislated which expands and further democratizes quality education in post-secondary and tertiary levels through an open learning philosophy and distance education (Congress of the Philippines, 2011). This further puts pressure on colleges and universities as well as schools for basic education to ensure that education is available to all learners. The 21st century calls for a “new educational paradigm” Gandhe (2009), one that will enable “continuous learning, training and retraining of a large mass of humanity”. (p.53) There is a high demand for higher education by learners who are constrained by geography, time and finances preventing them from attending regular residential classes (Padolina, 2005a and Bandalaria, 2007). This is most applicable for learners in teaching certificate programs.

PNU ventured into distance education through its project called PNU LINK: Teacher Education through Distributed Learning Systems in 1999-2001 (Philippine Normal University Center for Distance Education, 1999a). Prospective learners in this program could access education through open and flexible learning systems. Varied instructional materials were deployed electronically through asynchronous communication and a blended approach to learning. Online learning was supplemented by face-to-face sessions and printed materials in
addition to online resources. The university then had a comprehensive plan and funding for the distance education program (Philippine Normal University Center for Distance Education, 1999a, 1999b). Based on PNU CETDE documents (2003), the PNU Center for Distance Education in 1998 later evolved into the Center for Educational Technology and Distance Education (CETDE) in 2002-2006. An expanded vision, mission and goals, functions of the CETDE which was tasked to offer distance learning were developed. An ICT-enabled strategic plan for teaching and learning was implemented. ICT infrastructure saw some significant improvements. Information Technology laboratories and internet connection were set up. Partnerships with non-government educational and business organizations for technical and pedagogical support were made. But the distance education program, although properly launched initially in 1999 and implemented for three years was not sustained. This paper explores the possible reasons why it did not prosper and what might be done to sustain it.

LITERATURE REVIEW

According to Matthewson (1998), distance education must be holistically planned and managed. In planning, key issues must be considered, such as being clear about the basis of the program, the type of distance education program, its target beneficiaries and procedure of the instructional delivery. She emphasizes that “management is the final determiner of quality in distance education”. Moreover, there is “no right distance education model or one right way to manage distance education” (p.2). She cited three important subsystems of the program to focus on: (1) course development, (2) student support and (3) administration. Easiest to manage is course development which involves selecting content, designing course materials, development and production of materials. Student support focuses on the program delivery, maintenance and communications. Administration pertains to “resource planning and fiscal oversight, policy and decision-making, coordination of all systems (including registry and monitoring), research and evaluation, institutional and external relations, marketing, and... the professional development of staff” (p.8).

Certain institutional and implementation challenges and design of the distance education program, media and technology, quality assurance and learning support services, must be considered in establishing e-learning (Padolina, 1995a). Mariasingam and Hannah (2008) highlighted (1) institutional, (2) learner and (3) facility requirements. Lever-Duffy, McDonald and Mizell (2003) also recognized similar issues but underscored (1) teacher and student readiness, (2) preparation and classroom management time, (3) technical support and (4) instructional support.

Churchill (2008) cited seven issues in e-learning implementation: (1) access to the internet; (2) access to computers and other technologies; (3) pedagogical design; (4) Learning Management System; (5) using software tools; (6) content for e-learning; (7) transformation management. To integrate e-learning in formal courses, Khanser (2002) delineates three challenges: (1) quality courseware; (2) careful planning; and (3) support structures. To ensure quality of e-learning as applied in distance education, seven principles, namely, (1) learner-centered, (2) rigorous and sound instructional design, (3) transparency and peer review, (4) public responsibility and accountability, (5) quality and continuous improvement should characterize the program (Teehankee, 2003).
Smith (2004) names five issues in promoting blended learning or learning that combines online and face to face modes. They are: (1) institutional commitment; (2) teaching-learning focus; (3) integrated infrastructure; (4) staff development, workload, reward; (5) centralized processes, compatible systems and efficient operations. He explains that the vision, mission and strategic directions must be appreciated by the program stakeholders. Short and long-term plans must be developed and incentives be balanced with consequences. A powerful entity must oversee the teaching and learning issues. High levels of engagement in blended learning need to be integral to all teaching and learning. He stressed the need for budget allocation, development of policies, plans and actions for teaching and learning, evaluation of current and future teaching and learning needs, as well as showcasing best practices. For the success and sustainability of blended learning, a “culture of quality through systematic approaches linked to tasks” (p.2) must be instituted. Clear parameters and a total picture of the entire program and processes must be defined. A quality system to ensure improvement, development and re-development of courses must be in place. Delimitations of planning, design options, development and production processes, distribution processes, distribution issues and support needs must be addressed. The infrastructure for teaching and learning need to look into the IT, media and production requirements including distribution networks. Finally, professional development, familiarity with the technology, the new teaching and learning environment and exposure to best practices are essential to staff development. Other staff concerns to consider are workload, time to write, update and revise materials, intellectual property and copyright issues, promotion and recognition, appropriate sharing of materials and assuring excellence in teaching and learning.

Khanser (2003) identified as key concerns (1) faculty and student preparation requirements, their qualifications and needed support; (2) the cyber classroom, (3) the benefits of e-learning, (4) the social and ethical considerations, (5) management of e-learning environments, (6) quality standards for e-learning initiatives and (7) online course module groundwork. To ensure the appropriate direction and sustainability of the innovation, she recommends the development of an e-learning strategic plan which consists of an analysis of the internal and external factors in the implementation of the program. Internal factors include the IT infrastructure, technical expertise, access to computers, the manpower and financial capability. External factors must be analyzed in terms of strengths, weaknesses, opportunities and threats of the market, the ICT advancements and government policies. Clear vision and mission, financial plan, maintenance costs for equipment and an action plan to accomplish the vision, mission and objectives of the e-learning program must be developed.

Yang and Cornelious (2005) described important qualifications and training needed by teachers to teach effectively in an online learning environment. They also specified the design and delivery of effective online instruction including instructor preparation for quality online learning and instruction. The importance of teacher preparation and appropriate planning is supported by Queiroz and Mustaro (2003). They enumerate teacher functions: (1) pedagogical, (2) social, (3) managerial and (4) technical. Also putting prime value on faculty training, Gibbons and Wentworth (2001) warn that without appropriate training, instructors may fail to teach effectively. Kearsley and Blomeyer (2003) explain that preparation should be a continuing process and not just short workshops that characterize most of the in-service trainings. They further identify certain requirements, pre-conditions and competencies of online teachers. Both the teachers and
learners must be provided support to succeed. McKenzie, B., Mims, N., Bennett, E. & Waugh, M. (2000) believed that the faculty play an important role in the effective online learning in higher education institutions.

Davies, Little and Stewart (2008) named the components of an online learning system. They include (1) courseware development; (2) learning management system; (3) content management system; (4) library and digital resources; (5) learner services; (6) interface with student information system; (7) user’s portal; and (8) quality assessment; (9) organizational change; (10) leadership; (11) scouting reports; (12) governance; (13) communication; (14) pilot projects and evaluation; (15) change management. These elements are themselves critical systems and processes that need complete understanding and careful analyses.

The abovementioned studies indicate that establishing an online learning program is a complex process necessitating thorough understanding of the components that comprise it. Institutions that aim to offer a distance education program must be aware of how it can work within their specific context.

**CONCEPTUAL FRAMEWORK**

Putting together specific considerations identified by distance education practitioners, this researcher, then designated as Director of the Center for Educational Technology and Distance Education in 2007 attempted to implement an online education program within the context of PNU. This study attempted to revive the institutional commitment to provide a more accessible education. Global educational developments, the national government’s thrusts and distance education policies, and learners’ needs in the 21st century, were the forces that drove PNU to implement a revitalized distance education program. It aimed to respond to the clamor for a more responsive education by the lifelong learning market. The program considered four components: (1) management and administration; (2) manpower resources, (3) infrastructure, and (4) the delivery system of education.

The existing institutional commitment, processes, support systems for students, technical and administrative, the infrastructure for distance learning and evaluation systems for quality assurance were studied. The availability of academic, instructional materials development, technical and administrative manpower were determined. The infrastructure access, efficiency and maintenance were observed during the try-out.

The three stages followed by the Center for Distance Education of PNU when it first implemented its distance education program (PNUCDE, 1999b) were adopted. In the planning stage, an analysis of the physical infrastructure requirements, course development, identification of prospective students and dissemination of the distance education program were carried out. Thereafter, the online program was tried-out. Then during the evaluation phase, the feasibility of the program was analyzed. Figure 1 shows the conceptual framework of the online learning program implementation.
METHODOLOGY

This study uses a narrative research design to describe the PNU pilot implementation of online learning in summer 2008. The subjects of this investigation were four faculty members who volunteered to be part of the try-out including this researcher who also served as planner and implementer of the program. All four online instructors were affiliate faculty members of the College of Education’s Advanced Professional Development Department. A purposive sampling was applied to select the 52 students enrolled in specific Certificate in Teaching Program courses tried out for online learning. Majority of them were working professionals with a mean age of 31 years, youngest of which is 23 years old and oldest is 56 years old. Based on their personal data, 58% of them enrolled in the program because of its flexibility; 40% gave career-related reasons i.e., advancement, additional credential and shift to teaching career; 6% wanted to try something new and 2% said that it was by chance because residential courses were already full. The class size for each online course depended on the number of students who enrolled in the course. The faculty member’s online teaching experience and their technology-integration skills were also considered in assigning them to courses. The following were the class sizes: Education 1 had 12 students; Education 3 had 7 students; Education 7 had 19 students, and Education 8 had 32 students. The online instructors with the highest level of distance education experience and technical expertise had class sizes beyond 15 students.
Data were collected through the field notes of this researcher, observations made during the actual implementation of the program, and the unstructured interviews with the online instructors and students. These were validated against four survey questionnaires, namely, the (1) Students’ Evaluation of Teaching which required learners to rate their instructors on a 5-point Likert Scale, the effectiveness of specific professional and personal qualities; (2) the Online Education Program Evaluation which focused on the technical background of learners, course design, the learning environment, instructor evaluation and the course results. The students answered open ended questions on their technical background and on items that required them to give suggestions to improve the program, identify its helpful elements, describe the difficulties experienced and provide advise to those who will take courses online; (3) the Online Course Evaluation consisted of open-ended questions on the elements of the online learning program. (4) The Online Faculty Survey Questionnaire were open-ended questions on the technology literacy level of the instructor, his/her experience in online teaching, the online courses taught, challenges met, teacher experience, teacher requirements, preparation needed, suggestions and recommendations to other colleagues who intend to teach online. Except for the Online Faculty Survey which was designed to gather information about the online instructors and their online teaching experience, all other questionnaires were drawn from internet resources. Additional data were culled from the students’ information sheets which provided learners’ profile and reasons for enrolling in the program. The evaluation instruments were face validated by the e-learning consultant of PNU.

Results based on the field notes, observations, and the interviews were organized into categories. Responses were analysed and summarized using frequency counts, mean, median and percentages or qualitative descriptions. Equivalent descriptive levels were assigned to the ratings given to specific components of the online learning program that were evaluated. Outcomes are described, summarized and presented in tables.

Procedure

The pilot implementation of the online program followed seven steps. First, the analysis of existing documents determined the thrusts, policies and processes that were established before. These provided information on the institutional commitment of the university to distance education Second, interviews of former directors who implemented the distance education program in the last three administrations since 1998 was conducted. Data gathered from their respective experiences shed light on challenges met and how these were addressed in the past. Accomplishments were noted including their difficulties. Functions of the Center for Distance Education in 1998 which later became the Center for Educational Technology and Distance Education in 2002 were also studied. Third, consultations with several local and foreign distance education practitioners and a review of studies on distance education were made to determine the essential program components to be considered in setting up a distance education program. Fourth, an analysis of the Strengths, Weaknesses, Opportunities and Threats (SWOT) of the program was done to determine the needs and possibilities of the program. This was followed by the fifth step which was preparing the action plan. The action plan focused on (1) course development, (2) IT infrastructure development, (3) identifying the prospective students, and the (4) development of systems and processes for distance education.
Course development went through the following stages: (1) identifying target distance education program and specific courses to try-out; (2) development of a comprehensive course syllabus; (3) development of instructional materials for the identified courses; (4) compilation of basic readings for the courses; (5) preparation of activities and discussion topics/questions for discussions; (6) faculty training in online teaching and digitization of course materials; (7) reproduction of materials to support learning; (8) try-out of target courses; (9) evaluation of the online course implementation; and (10) revision of the course implementation based on evaluation results.

The IT infrastructure development went through three stages: (1) identifying the IT requirements; (2) providing online faculty access to the internet; (3) familiarizing the online faculty with the Learning Management System and its in-house administration. The students involved in the try-out were those enrolled in the online courses offered in the Certificate in Teaching Program. This program was selected due to its high market of learners in need of flexible learning. Information on the online learning program was disseminated to them and costing was made for the online courses and program prior to their enrolment. Systems and procedure for the delivery of the courses, enrolment, evaluation of the course and the program, and identification of strategies for information dissemination were prepared beforehand. The action plan was then presented to the Vice President for Academics for approval. After it was approved, the plan was implemented as a pilot try-out in the summer term of 2008. The course implementation followed two phases: (1) The orientation phase which was a face-to-face meeting after students have enrolled in the courses. They were oriented on the nature of the delivery mode, the general distance learning calendar, communication and contact procedures, the Learning Management System and a workshop on how to use the features of the virtual learning environment system. They were given information on how to get academic and technical assistance as needed. The e-Learning Consultant served as the technical helpdesk while the course instructors provided academic support.

The second phase was (2) the implementation proper. The delivery mechanism of the PNU online learning program was blended. Students were required to attend three face-to-face sessions for the whole duration of the program. They consisted of: (a) the course orientation; (b) by mid-summer term, they had a clearinghouse session on the topics taken up, then they take the midterm examination. Lastly, (c) during the last week of the summer term, another clearinghouse was conducted prior to taking their final examination.

The Learning Management System (LMS) used was developed by Dr. Antonio E. Refre, PNU’s e-learning consultant. It had the following features: (1) a bulletin board, where course instructors post announcements and reminders; (2) course contents, where course instructors post course materials for students use and return students’ outputs with feedback; (3) posted files, where online students upload their assignments; (4) web references, where course instructors provide the web resources to support students’ learning’ (5) class discussion, where course instructors upload topics for discussion and students can respond and communicate with each other in a threaded format; (6) class members, where the instructor and the students upload their respective individual photos for identification; (7) grade check, where the course instructors upload students’ respective grades, which can only be viewed by the respective students.
online users, which records the entry and departure of the instructor and students inside the virtual classroom. At the outset, course instructors introduced themselves and the course first. Then the course syllabus is provided and students are engaged in discussion, individual and/or group activities online. The course instructors were allowed to use varied learner-centered strategies that would enable students to demonstrate their learning. The LMS was simple and easy to use for both neophyte online teachers and students. It did not have provision for synchronous interactions but teachers and students were allowed to supplement their activities with free web-based applications to make them communicate in real time as needed, and to enrich teaching and learning.

The seventh and final step is the program evaluation. This was a means to determine how the program could be improved. Figure 2 summarizes the steps of the online learning program try-out:

![Figure 2. Steps of the Pilot Implementation Process](image)

RESULTS AND DISCUSSION

On the whole, it appeared that online learning was carried out successfully in summer 2008, but based on results, it is believed that specific challenges may hamper its sustainability. The said factors are discussed in the subsequent sections.

1. Management and Administration of the Program

The availability of documents on the vision, mission, goals and objectives of the distance education program was a significant starting point in planning the online learning program. These existing documents on the first launching of the program in 1999 provided information on what transpired before including the university’s commitment to distance education. They served as a basis for reviving the distance education program in 2008. These were updated and enhanced in the revival of the program. Former directors provided accounts of their experiences, the problems encountered and their respective accomplishments. A director who was tasked to plan, implement and oversee the online learning program, was designated by the university president.

A plan for an ICT-enabled teaching and learning in 2004 was uncovered, but based on the interviews and observations of the existing practices and state of ICT use in the university, it was revealed that university policies were needed to attain widespread ICT-integration in academic and administrative units. Implementation of the strategic direction that focused on making the university technology-enhanced needed more serious attention. Proper integration of systems and processes for distance education in the entire organization was needed. Furthermore, no
evaluation system of the program in general was available. And, there was no budget allocation for the program in 2008.

2. Manpower Resources

Manpower resources were not adequate. Only a few faculty members were willing to teach online despite the invitation and the professional development activities offered by CETDE to prepare them for the new instructional delivery mode. For instance, in two lecture-fora on distance education and e-learning in 2008, only 28-30 or 14-15% of PNU’s 200 teaching staff participated in the activities. There was also no quality team formed that would develop instructional materials for online teaching. No graphic designer, web developer, programmer and instructional designer among others, were available in PNU. Hiring qualified staff had financial implications for the university. Thus, the volunteer online faculty members developed their own course modules and digitized existing materials as they taught. Moreover, no regular technical support staff was assigned to CETDE. The technical unit was undermanned. CETDE concerns waited to be attended to until a technician was available. In addition, the clerical support staff assigned to CETDE was not permanent. In 2007 till the summer of 2008, office clerks were rotated.

3. Infrastructure

The physical infrastructure for distance learning in 2008 was available but, easy access to technology and internet connection, its efficient operation and maintenance needed improvement. Computers were outmoded and internet connection was either intermittent or slow. The online instructors used their personal ICT equipment and acquired their own broadband internet connection without support from the university, to be able to hold classes at their convenient time.

4.1 Delivery System: Planning and Preparation

The SWOT analysis showed that distance education had a strong basis for implementation as indicated by the existing CETDE documents. The institution’s vision, mission, goals and objectives for the program provided direction for the implementation process. Existing plans and the actual experiences of former directors served as baseline information for planning. In 2002-2006, specific improvements were apparent in the ICT infrastructure, partnerships with private organizations and the university’s institutional commitment to ICT-integration in education since it was first conceived in 1998 when the Center for Distance Education was established. A development plan on how to achieve it, was available. Problems on instructional materials development, lack of funding, poor faculty commitment, unattractive incentive package, inadequate support from academic units, theft of university equipment and insufficient understanding by certain units of what the program required were the challenges that were encountered.

While the faculty members were considered subject matter experts, the development of modules posed as a major challenge. Only less than 50% of all the modules were completed. The main cause of the problem was believed to be due to the writing demands of the materials. Most of the content specialists were not equipped with technical writing skills. The module
development underwent a long process of editing and eventually, only less than half of the target modules were completed. The instructors were not also technologically savvy. They underwent ICT skills training in a PNU partner institution, the Asia Pacific College, which was a provider of Information Technology-related courses. But despite the training, most of the instructors failed to practice the new skills acquired. Some resistance to change was also apparent in the university community. Support for the program was not widely felt.

In the initial implementation of the distance education program, PNU had funding from the Commission on Higher Education. But when it was depleted, budget for distance education became nil. In 2002-2006, partnerships with private technical and educational organizations were undertaken to get support for CETDE’s needs. But the latter years saw the decline of the distance education program. In contrast to the initial implementation of the program, where traditional modules that required much time and a long process to prepare, high cost and staffing, the online faculty in the 2008 made use of their available instructional materials in teaching the courses. They developed their own modules as they taught. They also relied on their own resources and skills to address the demands of online teaching and to provide their own students, academic and technical support when they needed it.

Among the most critical threats to the program were inadequate management and administrative support, and the negative attitudes of most faculty members. Scarce attendance in professional development activities, the slow processing of requests by specific administrative units, revealed a poor if not lack of a clear understanding of the university stakeholders’ roles in the program. In the basic ICT skills training for the faculty provided at the outset, only 8.5-10% of the total number of faculty members participated in the training sessions. In the Lecture-Forum on Distance Education, the series of Online Teaching and Learning faculty trainings, the Lecture-Forum on e-Learning and the 21st Century Teacher, only 8-14% of the faculty members participated based on attendance lists. It was thus, decided that selecting only the willing faculty members for the program try-out in 2008 would be the best option. Requests for a clerical staff and processing of CETDE concerns took weeks to months to be addressed.

Other setbacks were the lack of funding, the insufficient faculty capability in using ICT in education, inadequate faculty skills in module writing, outmoded equipment and poor maintenance of the existing ICT infrastructure. Before the launching of the online learning program, the computers in the CETDE laboratory were appraised. Only less than five computers out of 20 were functioning properly. The rest needed repair, if not replacement, as they were already outmoded. Peripherals were not complete and there was no internet connection. These were not immediately attended to despite the urgent request for new equipment, and a dedicated, efficient internet connection for online learning.

4.2 Delivery System: Implementation

Results based on the survey instruments were analyzed and consolidated. Outcomes showed that the volunteer online instructors possessed specific characteristics that were suitable for the online learning. Although they had varied levels of ICT skills and strategies, these were found to be adequate for the needs of learners. The instructors’ ICT skills ranged from moderate to advanced levels. All of them showed openness toward the new instructional delivery mode. They
viewed online teaching and the students positively. They all signified that they would recommend
the program to their colleagues and to potential students. At the end of the program, they
suggested specific enhancements for the LMS, capacity-building for the faculty, better internet
connection and collaborative activities with online communities. Table 1 summarizes the
qualitative responses of the online instructors on their experience:

Table 1. The Online Instructors’ Experience

<table>
<thead>
<tr>
<th>ITEM</th>
<th>SUMMARY OF RESPONSES</th>
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<tbody>
<tr>
<td>How online teaching was viewed</td>
<td>challenging, flexible, satisfying, convenient, enjoyable but also demanding, time-</td>
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<td></td>
<td>consuming and strains the eyes.</td>
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<tr>
<td>Reasons for teaching online</td>
<td>Flexibility, desire to make teaching current, innovative, more student-centered and</td>
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<td>responsive to needs of learners; and enjoyment in discussions/interactions with</td>
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<td></td>
<td>learners</td>
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<tr>
<td>Years of experience teaching the course</td>
<td>Education 1-6 years; Education 3-10 years; Education 7-17 years; Education 8 – 2</td>
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<tr>
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<td>years</td>
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<tr>
<td>Years of experience teaching online course/s</td>
<td>0 – 2, 3 and 5 years</td>
</tr>
<tr>
<td>Self-evaluation of technology literacy level</td>
<td>2- moderate, 2- advanced</td>
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<tr>
<td>Challenges encountered</td>
<td>access to the internet, mastery of the VLES, organizing, digitizing and planning</td>
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<td></td>
<td>instruction; availability through mobile phone communication, time to check outputs</td>
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<td></td>
<td>and providing timely responses to students; intermittent internet connection,</td>
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<td></td>
<td>researching internet resources, determining deadlines and monitoring students’</td>
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<td></td>
<td>compliance with requirements; staying current, reading and researching</td>
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<tr>
<td>Suggestions to improve online teaching</td>
<td>supplementing the asynchronous interactions with chat; organizing the discussion</td>
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<td></td>
<td>threads; improving means to upload data; making helpdesk available 24/7; capacity-</td>
</tr>
<tr>
<td></td>
<td>building of faculty in ICT and ICT-integration; and improving connection and</td>
</tr>
<tr>
<td></td>
<td>collaboration with online communities.</td>
</tr>
<tr>
<td>Perceptions of students’ readiness for online learning</td>
<td>adjustment to new way of learning; maturity, sense of responsibility, exposure to</td>
</tr>
<tr>
<td></td>
<td>technology and proficiency in using technology</td>
</tr>
<tr>
<td>Perception of students’ performance</td>
<td>mature, proficient in communication, open-minded, creative and generally performed</td>
</tr>
<tr>
<td></td>
<td>well; did their best to cope with the demands of the new mode and pacing of the</td>
</tr>
<tr>
<td></td>
<td>summer term, poor time management of some students</td>
</tr>
<tr>
<td>Would online learning be recommended to students</td>
<td>all online faculty agreed that it is now the new way of learning and it has</td>
</tr>
<tr>
<td></td>
<td>numerous benefits for learner; highly recommended to students.</td>
</tr>
<tr>
<td>Would online teaching be recommended to colleagues</td>
<td>all online faculty agreed that other colleagues should try it to upgrade their</td>
</tr>
<tr>
<td></td>
<td>teaching to 21st century requirements. Online teaching is perceived as beneficial,</td>
</tr>
<tr>
<td></td>
<td>convenient, stimulating, liberating, engaging and fun</td>
</tr>
<tr>
<td>Preparation needed by teachers</td>
<td>ICT and technology integration skills, training in e-learning, understanding the</td>
</tr>
<tr>
<td></td>
<td>rationale behind online and distance education and having the right attitude and</td>
</tr>
<tr>
<td></td>
<td>perspectives</td>
</tr>
<tr>
<td>Online teaching strategies applied</td>
<td>discussion, article review, film-viewing and analysis, reading and writing activities, data organization and presentation, research/ inquiry, case analysis, reaction paper, portfolio assessment, collaborative activities, e-notebook development, digital portfolio development, chat, web site exploration and development, blogging and critiquing one’s own work</td>
</tr>
</tbody>
</table>

Based on the students’ evaluation of the online instructors’ teaching, instructors received an
overall mean score of 4.64 for their knowledge of the subject matter and teaching strategies; and
4.6 for their attitudes and manner of handling the course. These scores show a high regard for the
online instructors’ overall teaching. The results support the perception that online instructors were ready for online teaching and that they demonstrated essential qualities for effective online instruction. This further implies their suitability for this mode of delivering education. Table 2 presents a summary of students’ evaluation of the instructors’ teaching.

Table 2. Summary of Students’ Evaluation of Teaching

<table>
<thead>
<tr>
<th>AREAS</th>
<th>AVERAGE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers’ knowledge of the subject matter and teaching strategies</td>
<td>4.64 (Excellent)</td>
</tr>
<tr>
<td>(i.e., knowledge of subject matter, encouragement of participation,</td>
<td></td>
</tr>
<tr>
<td>clear and adequate guidance, timely provision of course materials,</td>
<td></td>
</tr>
<tr>
<td>clear course requirements, coaching and facilitation skills)</td>
<td></td>
</tr>
<tr>
<td>Attitudes and manner of handling the course</td>
<td>4.6 (Excellent)</td>
</tr>
<tr>
<td>(i.e., organization, enthusiasm, concern, clear explanation,</td>
<td></td>
</tr>
<tr>
<td>stimulates participation, accessibility for consultation,</td>
<td></td>
</tr>
<tr>
<td>realistic appreciation of students’ time and effort, support</td>
<td></td>
</tr>
<tr>
<td>and feedback, overall effectiveness)</td>
<td></td>
</tr>
</tbody>
</table>

source: Student Evaluation of Teaching
Legend: 4.1-5=Excellent, 3.1-4= Very Good, 2.1-3=Good, 1.1-2=Fair, 0-1= Poor

Based on the online learners’ information sheets, the students were perceived to be ready for online learning as shown by their technical proficiency, familiarity with the internet, their easy access to technology in their work places and home, and most of all, their psychological maturity. They possessed commitment to their course work as shown by the amount of time they spent connected to their online courses and their preparation time for their online course requirements. Table 3 summarizes the learners’ technical background:

Table 3. Summary of Learners’ Technical Background

<table>
<thead>
<tr>
<th>ITEM</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet-based courses taken</td>
<td>89.13% had no experience in internet-based courses.</td>
</tr>
<tr>
<td>Level of ease in using computer for course assistance</td>
<td>86.96% were highly proficient in using the computer for learning; the</td>
</tr>
<tr>
<td>Level of experience in accessing the internet</td>
<td>95.66% have facility in accessing the internet.</td>
</tr>
<tr>
<td>How internet-based courses are accessed</td>
<td>47.22% accessed their internet-based courses at home, office or school</td>
</tr>
<tr>
<td>How internet-based courses are accessed</td>
<td>34.78% at the internet café</td>
</tr>
<tr>
<td>Hours per week spent connected directly to online courses</td>
<td>78.26% spent approximately 2 hours or more everyday connected directly to their online courses.</td>
</tr>
<tr>
<td>Hours per week spent preparing materials for online courses</td>
<td>78.26% spent approximately 2 hours or more everyday preparing for online courses.</td>
</tr>
</tbody>
</table>

source: Online Education Program Evaluation

The students’ suitability for the online program could be validated by their overall evaluation of the course results. The overall mean score of 4.5 presents a high general satisfaction in relation to the high quality of their learning as indicated in Table 4. Students chose to enrol in the online mode because of the following reasons: its accessibility, flexibility, their desire to shift or advance their careers and their curiosity to try the new mode of learning. Majority of the students had no experience in online learning but they were comfortable using the computer and the internet; they had easy access to computers at home, in the work place, and in internet cafes; they spent an average of 10-15 hours per week connecting to their online classes. They spent an average of 10-
20 hours a week preparing materials for their online courses. The amount of time they spent doing their online course requirements revealed their commitment to their own learning as they spend at least 25% of their time every day or approximately 2-6 hours, doing their online course work.

The online course was evaluated highly by the online learners, getting 4.34 for the course design, 4.34 for the learning environment, 4.50 for course results and highest is 4.59 for instructor evaluation. These support learners’ evaluation of the online instructors’ teaching as indicated in Table 2. Table 4 summarizes the program evaluation’s overall ratings:

**Table 4. Summary of Online Education Program Evaluation**

<table>
<thead>
<tr>
<th>AREAS</th>
<th>AVERAGE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Design</strong> (i.e., objectives, content, procedure, presentation, organization, activities, interactions, practice, feedback, assignments, difficulty level, pacing, references)</td>
<td>4.34 (Excellent)</td>
</tr>
<tr>
<td><strong>Learning Environment</strong> (i.e., instructions, technical support, access to materials, effectiveness of computer server, course effectiveness and communication tools)</td>
<td>4.34 (Excellent)</td>
</tr>
<tr>
<td><strong>Instructor Evaluation</strong> (i.e., enthusiasm, preparation, availability, support, response, participation, interaction, effectiveness as facilitator)</td>
<td>4.59 (Excellent)</td>
</tr>
<tr>
<td><strong>Course Results</strong> (i.e., objectives, application of learning, quality of experience, overall satisfaction)</td>
<td>4.50 (Excellent)</td>
</tr>
</tbody>
</table>

source: Online Education Program Evaluation
Legend: 4.1-5=Excellent, 3.1-4= Very Good, 2.1-3=Good 1.1-2=Fair, 0-1= Poor

Although the implementation of the online program proved to be beneficial and perceived highly by learners, certain challenges were observed which may affect its future viability if unattended. Difficulties were met in the course of the program implementation. They are summarized and presented in Table 5. It could be noted that implementing a distance education program is highly complex and must consider many components.

**Table 5. Implementation Challenges and Perceived Needs**

<table>
<thead>
<tr>
<th>DISTANCE EDUCATION COMPONENT</th>
<th>CHALLENGES</th>
<th>NEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Technology Infrastructure</td>
<td>• outmoded, defective, inadequate ICT infrastructure and office equipment</td>
<td>• improve technology infrastructure for distance education</td>
</tr>
<tr>
<td></td>
<td>• slow, intermittent internet connection, lack of internet support for faculty</td>
<td>• acquire software needed for improvement of distance education</td>
</tr>
<tr>
<td></td>
<td>• VLES is donated, has limited features but easy to use</td>
<td>• enhance features of VLES</td>
</tr>
<tr>
<td></td>
<td>• no provision for back-up of files</td>
<td>• better internet service provider</td>
</tr>
<tr>
<td></td>
<td>• internet connection shared by all university units – no dedicated line for distance education</td>
<td>• funding for ICT infrastructure</td>
</tr>
<tr>
<td>DISTANCE EDUCATION COMPONENT</td>
<td>CHALLENGES</td>
<td>NEEDS</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------</td>
<td>-------</td>
</tr>
</tbody>
</table>
| b. Administrative Support   | • no implementing guidelines, policies or university memos to accomplish the vision, mission, goals and objectives of distance education  
• no budget allocation for distance education  
• inefficient processes and systems  
• lack awareness of distance education requirements  
• inadequate leadership support i.e., academic support and administrative support  
• lack of recognition and incentives for instructional innovations | • provide implementing policies, guidelines or procedures to accomplish vision, mission, goals, and objectives of distance education  
• allocate budget for distance education  
• improve systems and processes to be more efficient and effective  
• build awareness on distance education and management roles and responsibilities  
• provide stronger support for the distance education program  
• develop a reward system for innovation in teaching |
| c. Student Readiness and Support | • no access to computer and internet connection at home  
• poor time management  
• inappropriate mindset, attitudes and values  
• inability to cope with demands of online learning  
• inadequate access to academic advising  
• inadequate academic, resource and technical support  
• lack commitment to online coursework  
• unclear reason for taking online course, no sense of direction | • screen students to ensure that those who will enrol in the program have access to a computer and internet connection, and have appropriate attitudes and competencies  
• provide orientation-workshop to prepare learners for the demands of the program  
• provide academic and technical support |
| d. Content Development | • lack content experts who are equipped with online pedagogical strategies  
• inadequate knowledge in module development  
• lack skills in web-based content development  
• inadequate knowledge of instructional design  
• inadequate knowledge of fair use and copyright law | • build capacity in ICT, ICT-integration and online teaching strategies, web-based content development, instructional design  
• build awareness of fair use and copyright law |
| e. Technical Readiness and Support | • inadequate technical support  
• MIS lack expertise in developing LMS and systems administration of VLES  
• inadequate IT manpower | • provide technical support  
• hire technical staff who can develop the LMS and serve as systems administrator |
| f. Quality Standards | • lack university quality assurance measures for distance education  
• lack quality standards for online teaching  
• slow processing of requests | • expedite processing of requests  
• ensure quality of distance education delivery through quality assurance measures or standards for online teaching  
• coordinate with institutions involved in quality assurance for distance education |
Table 5. Implementation Challenges and Perceived Needs (continued from p.16)

| g. Marketing and Promotion | • no media specialist to assist in production of marketing materials  
|                          | • inadequate support for promotion of distance education  
|                          | • lack of resources for development of publicity materials  
|                          | • strategize to market distance education  
|                          | • improve coordination among significant university units i.e., the center for distance education with the university press, management information system, center for linkages and extension  
| h. Research and Evaluation | • lack systematic research and evaluation to determine impact of distance education implementation  
|                        | • inadequate support from research unit  
|                       | • improve coordination between center for distance education and center for research and development in education  
|                       | • improve research support for distance education  

source: field notes/ CETDE 2008 documentation of Online Learning Program Implementation

While the program was rated highly, some room for improvement was evident as revealed by the suggestions of the online students in Table 6. Elements that were found helpful or that caused difficulty were identified. Advice for students who intend to enrol in this program were also recommended. It is noteworthy to study the elements that caused them difficulty and those that were helpful for them to improve the program.

Table 6. Summary of Qualitative Responses in Online Education Program Evaluation

<table>
<thead>
<tr>
<th>ITEM</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggestions to improve the course</td>
<td>Immediate feedback, application, technical, facilitation, time (too short for all the reading that needs to be done), include feature of LMS that would allow synchronous interactions, in-depth discussion of content – use the f2f component for this, interactive activities, assignments, technical efficiency of technology administrative function of learners, more one-on-one interactions, technical support for students, more digital resources, hard copy of materials, advanced posting of deadlines</td>
</tr>
<tr>
<td>Elements of program that were helpful</td>
<td>Accessibility and quality of resources, detailed course topics and clear instructions, user-friendly features of the LMS, flexibility, design of the online course, activities, everything about the program, feedbacking, opportunities for independent learning, discussions, convenience, supportive course professors</td>
</tr>
<tr>
<td>Elements of the program that caused difficulty</td>
<td>Poor internet connection, poor time management, unresponsive classmates, lack of preparation for discussion and time to do requirements, tedious discussion process, too many materials to read, technical problems e.g., server down, difficulty in uploading or downloading files, deadlines, having to rent computer, cost of printing materials to read</td>
</tr>
<tr>
<td>Advise to others who would take the online course</td>
<td>Time-management, dedication, perseverance, diligence, own a computer for convenient access, participate actively, take only manageable number of courses, polish reading skills, focus, keep notes, save/store files, allot time to do course requirements and tasks, be prompt, improve technology skills, prepare, take online courses seriously, have initiative, be responsible, enjoy learning, be willing to learn meaningfully</td>
</tr>
</tbody>
</table>

source: Online Education Program Evaluation
Analysis

Based on the data gathered and the outcomes of the implementation, several factors believed to have ensured the success of the online program were: (1) the university’s commitment to provide access to education as shown by the documents on the vision, mission, goals and objectives for distance education, the technology-enhanced university strategic direction, and the plan to promote an ICT-enabled teaching and learning. Having a specific unit i.e., CETDE to oversee the implementation of the distance education program and designating a Director to manage and administer it reflects the importance the university gives to the program. This is necessary when shifting to blended learning (Smith, 2004). These serve as important structures for establishing the program. They direct the university’s actions to achieve its intentions. (2) Faculty members who were willing and able to teach online was another factor that likely contributed to the success of the program. Equipped with appropriate personal and professional competencies, it is believed that online instructors enabled students to learn. Their desire to make instruction more student-centered and responsive motivated them to teach online. This was supported by McKenzie, B. et al. (2000).

The readiness of the instructors for online teaching as reflected in their openness towards the innovative way of teaching, their awareness of the preparation needed for online education, their technology and e-learning skills, and prior trainings, were underscored by Gibbons and Wentworth (2001), Khanser (2003), Lever-Duffy, McDonald and Mizell (2003), Queiroz and Mustar (2003) and Yang and Cornelious (2005). Online instructors must be prepared through appropriate training in skills essential for successful online instruction. (3) The online students who possessed appropriate attitudes, values and skills, were likewise seen as another key factor enabling distance learning to prosper. Their readiness for the program is reflected by their positive attitude towards the technology-enhanced mode of learning. Most of them exhibited attitude/s and behaviours that were expected of mature learners i.e., being more responsible, independent, dedicated, and etc. These are shown in Table 1 on the teachers’ perception of students’ readiness and performance. Khanser (2003) specified that learners must be committed, computer literate and open-minded. They need to possess certain attitudes and values i.e., being independent, self-motivated, active, reflective, comfortable with new technologies, enthusiastic, highly interactive and finding relevance in what they are learning. Padolina (2005a) also stressed similar characteristics of learners needed for successful online learning. (4) A final element could be found in the teaching and learning components i.e., course design, the virtual learning environment system and how the online instructors enabled effective learning to happen through technology. Khanser (2002) highlighted the importance of delivering quality instruction through e-learning. To be able to do so requires careful planning and support structures in the university. Padolina (2005a) explained that efficiency, learning process and technology is one of the challenges to address in e-learning. The design of distance education with its course development, course delivery and student support, media and technology also play an important role in ensuring the success of the program.

Distance education requires a more constructivist approach to learning. Furthermore, technology must be appropriately used and adapted to context. Lever-Duffy, McDonald and Mizell (2003) explained that activities conducted in the online environment can enhance learning as they individualize instruction, promote interaction and independent learning. Yang and
Cornelious (2005) describe quality online learning as being student-centered. Students benefitted from instructor guidance and greater participation using the features of the virtual learning environment. Ratings in Table 4 on the online program evaluation consistently indicate the appropriateness of teaching and learning which the online instructors demonstrated, consequently producing learners’ overall high learning satisfaction. It shows how desired outcomes of instruction were achieved.

Despite the general success of the program in promoting students’ overall learning, certain concerns emerged from the implementation experience. Data in Table 5 shows numerous aspects of the distance education program that must be seriously addressed. It presents general difficulties met beyond the course implementation itself. Some of the documented challenges in Table 5 are supported by results in Table 6. Having a well-planned course design, a useful virtual learning environment and committed online instructors could produce significant positive results in online learning but these may not be enough in the long run. An online learning system is a complex integration of many components that must be properly coordinated and carefully addressed (Davies, Little and Stewart, 2008; Smith, 2004; Khanser, 2003; Lever-Duffy, McDonald and Mizzell; Matthewson, 1998; Padolina, 1995a).

At the institutional level, the distance education program must be clearly understood by all stakeholders of the university. Support from all levels of academic and administrative units is determined by their understanding of their specific roles and responsibilities in the program. Their assistance is essential to make operations and systems work. Under the management level, attention must be given to the development of policies on distance education implementation, coordination of systems, funding, quality standards, total program evaluation, reward and recognition for innovative practice. Capacity-building of faculty for online teaching and materials development, motivation and awareness of the benefits of online teaching and learning including support for innovative teaching must be addressed before and during the program implementation. Sufficient student support services, proper dissemination of the program by academic units are needed. Student advising and technical assistance must be adequate. And to ensure students’ success, an orientation on online education, self-management, technical requirements for the program must be provided. Access to resources, technical assistance, and academic advising are essential to the program. Infrastructure must be upgraded, efficient and accessible, otherwise, online teaching and learning would suffer. Technical manpower and a quality team for instructional materials development must be available for courseware development. Information to improve the program implementation which research can provide is necessary for the sustained growth and development of online learning.

Matthewson (1998) emphasized a wholistic view of distance education. Its components must be properly integrated. Institutions must have a larger framework to guide the process of making the program elements work together. (1) The role of management is thus, central because it is responsible for ensuring that plans, operations and processes, and corresponding academic, administrative and technical support for the program are available. Inadequate management support is a primary factor that may impede the success of the program. All other components such as the policies, procedures, support systems, the infrastructure and evaluation systems are under the governance of top management. (2) Manpower resources, made up of the online instructors, quality team, technical and administrative support staff are to be given due importance
as they concretize the e-learning program. Online instructors especially those who lack readiness for this new kind of education cannot promote effective teaching and learning. Hence, they need adequate preparation, appropriate competencies and positive attitudes toward the program (McKenzie et al., 2000; Gibbons and Wentworth, 2001; Kearsley and Bromeyer, 2003; Lever-Duffy, McDonald and Mizell, 2003; Queiroz and Mustaro, 2003; Yang and Cornelious, 2005).

Considering that online learning is technology-mediated, facilities must be suitable, updated, efficient and most of all, available. Computers and internet connection must be accessible to teachers and learners and operate fast. (3) If the infrastructure is inadequate because it is inefficient, outmoded, slow, inaccessible, and difficult to use, learning via the online mode will be problematic for teachers and learners. Mariasingam and Hannah (2008) highlighted facility requirements as one of the major concerns for a distance education program. This refers to the ICT hardware, software, the learning management system and internet connection. (4) Course development and quality standards in terms of instructional delivery is also an essential component. Online instructors, with the support of an instructional materials development team should develop the course materials and use a learning design that is suitable for online learners. Inadequate knowledge of course development in an online learning environment, copyright law and fair use, requirements for accreditation of online courses may lead to poor quality materials and education delivery system. There are specific standards and principles to follow in course development and instruction (Khanser, 2002; Teehankee, 2003; Padolina, 2005a; Yang and Cornelious, 2005; Erhmann and Chickering, 2008). Specific components of the online learning program must therefore be studied well before implementing this mode of teaching and learning. Institutions must be aware of the issues related to e-learning – from content development to management of change that affect an online learning program (Padolina, 1995a; Churchill, 2008; Smith, 2004; Khanser, 2003; Davies, Little and Stewart, 2008). Establishing a distance education program is a complex and comprehensive process. Its component parts cannot be taken for granted as they affect the overall operation of the program, its maintenance and long-term effectiveness.

CONCLUSIONS AND RECOMMENDATIONS

In conclusion, establishing an online learning program is a complex and encompassing undertaking. It involves a consideration of a host of components to ensure its sustainability. In this pilot implementation, specific factors were likely to have caused its success. The pilot implementation revealed that (1) institutional commitment is essential in putting up the program. This factor covers among others, the vision, mission, set of goals and objectives, and strategic directions to guide systems, processes and procedures related to the program (Smith, 2004). These set of documents manifest the importance given by the institution to the program. Moreover, having a director to manage and administer the program and a specific unit to oversee the realization of the institution’s commitment is also crucial. (2) Another critical component is having online instructors who possess appropriate attitudes, values, technology competencies, online pedagogies and facilitation skills necessary for effective teaching and learning in the new learning context (Gibbons and Wentworth, 2001; Kearsley and Bloomeyer, 2003; Khanser, 2003; Queiroz and Mustaro, 2003; Yang and Cornelious, 2005). (3) A third element is the online students who are equipped with appropriate attitudes and values, technology competencies, interest and maturity that are essential in the online mode of learning. Just as teachers need to be
prepared, trained and initiated into the new kind of education, students also need adequate preparation for online learning. They must have the necessary skills and personal qualities suitable for the online program (Khanser, 2003; Lever-Duffy and Mizell, 2003; Padolina, 2005a). Finally, the online course itself, consisting of the course design, virtual learning environment system and the manner in which the instructors maximized learning through its appropriate use is also seen as having contributed to the successful online learning implementation. Effective online learning instruction can be designed carefully to promote the desired learning outcomes (Yang and Cornelious, 2005).

Certain factors uncovered, however, may jeopardize the sustained practice of online learning if not properly addressed at the outset. As a complex process with major and minor subsystems, institutions interested to establish an online learning program must to study the components of the program carefully. Numerous issues or challenges need to be considered to implement online learning effectively (Lever-Duffy, McDonald and Mizell, 2003; Padolina a and b, 2005; Carague, 2005; Mariasingam and Hanna, 2008; Davis, Little and Stewart, 2008; Churchill, 2008). The challenges to the program that were revealed were: (1) Top management support which determines the actual commitment of the organization to ensure learners’ access to education. More than just a set of documents that directs university actions, institutional commitment is further concretized through resource planning, funding, policy and decision-making, coordination of all systems, research and evaluation, institutional and external relations, marketing, and the professional development of staff (Matthewson, 1998). Clear plans, policies and procedures, support systems, infrastructure, funding, standards and evaluation systems must be available and integrated (Khanser, 2003; Smith, 2004). Good management, i.e., administrative efficiency, is crucial to the success and sustainability of online learning. Any disharmony in the system may affect the operation of the program. (2) Another critical factor is the manpower involved in the making the program function effectively. It includes the online instructors that deliver the instruction, the instructional materials development team, web developer, graphic designer, the technical and administrative support staff who provide assistance to the needs of teachers and the university center that is tasked to promote the program and maintain its efficient operation. Any inadequacy in their availability and competencies would have an overall impact on the program.

Online instructors must be prepared and trained, possess appropriate attitudes and values but other people are also needed to make the program work - such as the quality team for course development (Khanser, 2003; Carague, 2005; Davies, Little & Stewart, 2008) which include among others, a learning design specialist, media specialist, editor, technology experts to assist teachers on their technical concerns and support staff for clerical services and administrative matters. Properly trained staff is needed to provide support for the program (Kearsley and Blomeyer, 2003). Another critical element is (3) the ICT infrastructure for online learning. It must be fast, efficient, appropriate and available (Khanser, 2003; Padolina, 2005a). Technology must be properly used to maximize learning, be suitable for the characteristics of teachers, learners and their context. Technology must be used to develop materials and deliver the courses effectively. Moreover, the course platform must be reliable, stable, easy to master and versatile in functionality (Gibbons and Wentworth, 2001). If there is difficulty in using the learning management system, motivation of the online instructors and students will be affected. (4) Course development and quality standards are also considered to be vital in ensuring the sustainability of the online learning program. The course must be designed in such a way that content is effectively
learned by the students. A lack of content expertise, online pedagogical skills, ability to develop course materials for an online mode, inadequate knowledge of learning design and ethical standards in the use of online resources affect the quality of teaching and learning. Online course materials development is a process which takes time and support from a quality team (Caplan, 2008). Specific standards and principles must guide the online instructional delivery to ensure effective learning (Khanser, 2003; Teehankee, 2003; Padolina, 2005a; Yang and Cornelious, 2005; Davis, Little and Stewart, 2008). Improvement will not be possible if an online program is not guided by standards for development. Quality assurance measures ensure the achievement of the desired goals of the program.

Thus, shifting to an online learning program requires careful planning and study of the components that comprise it. Institutions need to be clear about the basis for the desired change. It needs to consider the whole picture and the integration of the different sub-systems that make up the program. It must be grounded on a strong institutional commitment which is reflected in its mission, vision, goals, objectives, but concretized by actual budget allocation, policies and procedures, integrated systems, systematic processes, support systems, adequate infrastructure and evaluation systems to ensure quality; adequately prepared human resources, equipped with appropriate attitudes and values; infrastructure that is fast, reliable, efficient and effective. The delivery system must be well-planned, tried-out, properly disseminated and marketed, and improved through the results of a valid evaluation system. An online learning program that works satisfy specific institutional, learner and facility requirements (Mariasingam and Hanna, 2008). Quality must be ensured through a comprehensive assessment of the whole program. Given the complexity of the whole online learning system, it is recommended that further studies be conducted to look into each of the components believed to have affected its success as well as those that could hamper its sustainability. More details about how each distance education element affects the success or failure of the program may be uncovered through further studies.

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