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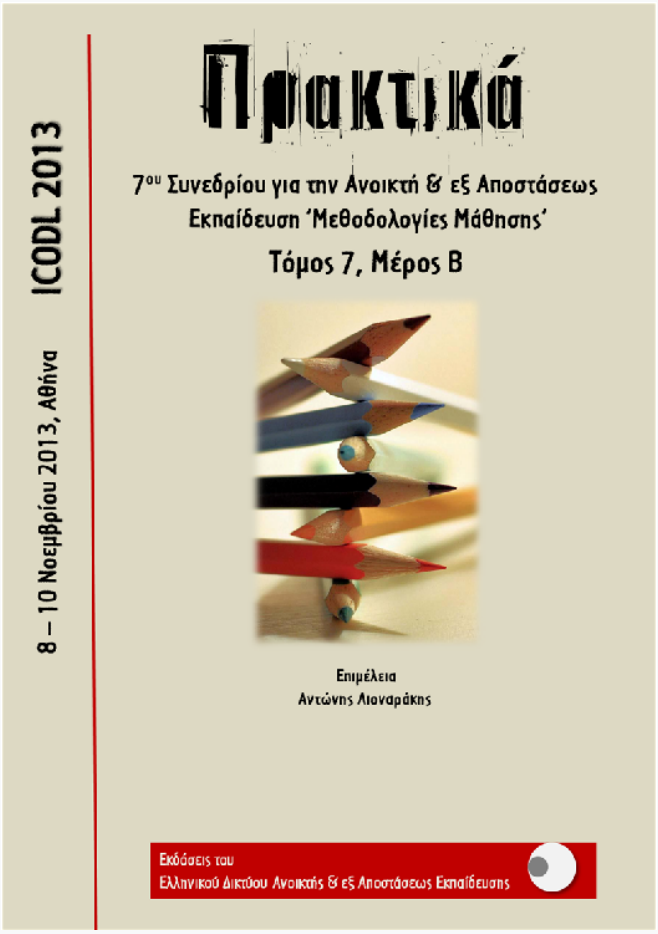

Design and Implementation of a Pedagogical Framework for the Introduction of Distance Learning Programs at Frederick University

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Abstract
Frederick University seized the opportunity granted by the ECPU in June 2012 to introduce new programs of study using the distance learning mode of delivery. In June 2013, two programs of study were successfully evaluated and the University got permission to offer two distance learning programs starting in September 2013: 1) Masters in Business Administration (MBA DL) and 2) Masters in Curriculum and Instruction (Med DL). The E-Learning Committee (ELC) was set up and approved by the Senate in September 2012 as the unit that has the overall responsibility for the design, development and implementation of the distance learning programs. The current paper primarily presents the pedagogical framework developed by the ELC, which served as the backbone of the design of the above new programs of study, and furthermore, the manner in which various agents involved in this endeavour interacted in order to successfully accomplish the project of design and implement distance learning programs at Frederick University.

1. Introduction
Frederick University established in 2007 after a long and successful presence in Cypriot higher education. It is one of the first 3 private universities to be granted a permanent license of operation in 2012. Since its operation, a remarkable growth has been achieved in student and faculty population and research output. It is currently comprised of 6 Schools and 16 Departments; 12 Doctoral, 12 Master, and 23

undergraduate programs, about 3,500 students, and 300 faculty. Frederick University seized the opportunity granted by the ECPU in June 2012 to introduce new programs of study using the distance learning mode of delivery. Offering distance learning programs was seen both as an opportunity and as a challenge. An opportunity, because given the established demand for such programs, and additionally, the ability to reach students that would be otherwise impossible, provided growth opportunities for the University. This was also seen as a challenge because for Frederick University, as with all programs, achieving and maintaining quality was of paramount importance.

The cornerstone of the whole project is the E-Learning Committee (ELC), which was set up and approved by the Senate in September 2012. Five of its members are from the University faculty and one is the Director of the University's Information Systems Service. The tenure of the ELC is for a period of four academic years. Additionally, the coordinators of the first two distance learning programs developed and submitted for evaluation also participated in the ELC.

The ELC has the overall responsibility for distance learning at Frederick University. More specifically, it develops and oversees policies for the development of distance learning programs, monitors and evaluates the quality of distance learning, it disseminates and proliferates e-learning practices in all programs offered by the University and last, but not least, it plans and develops the necessary infrastructure. The Learning Support Unit (LSU) was also set up in order to provide and advance offered services to all agents in relation to e-learning. Overall, it is responsible for evaluating, proposing and improving technical infrastructure to support e-learning, designing and delivering appropriate training, maintaining the e-learning portal and providing technical support to users. The University was successfully evaluated by the Cypriot Evaluation Committee of Private Universities (ECPU) in June 2013 and both of its proposed programs were approved for distance learning delivery, namely the Masters in Business Administration (DL MBA) and the Masters in Curriculum and Instruction (DL MEd).

The current paper primarily presents the pedagogical framework developed by the ELC, which served as the backbone of the design of the above new programs of study, and furthermore, the manner in which various agents involved in this endeavour interacted in order to successfully accomplish the project of designing and implementing distance learning programs at Frederick University.

The proposed framework is based on research evidence and contemporary theoretical approaches to distance learning in higher education (online pedagogical models) and capitalizes on the expertise gained by Frederick University from participating, as a partner in a consortium of seven European universities, in an European Union (EU) funded project under the ERASMUS Lifelong Learning Programme (Virtual Campuses).

2. Online pedagogical Models-Frameworks

Before presenting in detail the Pedagogical Framework, it is important to briefly introduce the Online Pedagogical models that it was built upon. Specifically, the pedagogical framework integrated various elements from the following models: 1) the Five stage model of E-learning by Salmon (2000, 2004); 2) the Community of Inquiry Model by Garrison, Anderson and Archer (2000), and 3) the ExConTra by Makrakis and Costoulas-Makrakis (2012).

Gilly Salmon (2000, 2004) presents a Model for online learning for blended or immersed online learning environments. The model comprises five stages: Stage 1:

Access and Motivation, Stage 2: On-line socialisation, Stage 3: Information Exchange, Stage 4: Knowledge Construction and Stage 5: Development. Each stage aims to develop an appropriate and successfully pedagogical online learning environment for students where knowledge construction is achieved through the use of various new technologies. The five stage model is based on constructivist pedagogic principles (Salmon, 2007) and provides a framework to help experienced face-to-face tutors become e-moderators. The role of the e-moderators was to support student engagement and learning in an entirely online course and enable students to develop from novices to independent online learners. It focuses on the role of the e-moderator in facilitating the students and on the technical issues involved (Watts, 2010). Finally, this model can be used to identify the typical activities tutors may be involved in at different stages of the students' learning processes.

The second model that was taken into consideration while developing the pedagogical framework was the Community of Inquiry. As described in Eteokleous and Ktoridou (2012), Garrison, Anderson and Archer (2000) developed a Community of Inquiry framework based on a constructivist and collaborative approach to teaching and learning. The Community of Inquiry (CoI) model as has been suggested by Shea and Bidjerano (2010) relates the social, the cognitive, and the teaching presence. The model is based on the work of Garisson, Anderson, and Archer (2000) which introduced the original model of CoI. The CoI model assumes that effective online learning requires the development of a community that supports meaningful inquiry and learning (Shea, 2006). Garrison, Anderson, and Archer (2000) developed this model which assumes that deep and meaningful learning results when there are sufficient levels of three components: teaching, social and cognitive presence. The model outlines theoretical elements essential to successful knowledge construction in collaborative online environments. The social presence relates to the establishment of a supportive environment such that students feel socially and emotionally connected to each other and to the instructor in a computer-mediated environment. The elements of social presence are demonstrated through emotional expression, open communication and group cohesion. The teaching presence involves the design, facilitation and direction of cognitive and social processes leading to personally meaningful and educationally worthwhile learning outcomes. Elements of teaching presence include setting curriculum and activities, shaping constructive discourse, and focusing and resolving issues. The cognitive presence such that serious learning can take place in an environment that supports the development and growth of critical thinking skills. It is the extent to which learners are able to construct and confirm meaning through continuous suggestion and discussion in a critical community of inquiry. The elements of cognitive presence include the following: triggering event (sense of puzzlement), exploration (sharing information and ideas), integration (connecting ideas), and resolution (synthesizing and applying new ideas) (Garrison & Arbaugh, 2007; Swan et al, 2008). Finally, the ExConTra model by Makrakis and Costoulas-Makrakis (2012) was taken into consideration. This model is driven by a learning paradigm that merges three theories of learning, namely experiential learning, constructivist learning and transformative learning and makes use of a four step online course design methodology: needs analysis, curriculum design, development and formative evaluation.

As aforementioned, the pedagogical framework capitalises on the expertise gained by Frederick University from participating in the *Information and Communication Technologies enabled Education for Sustainable Development* (ICTeESD), EU funded project. Within the Masters in ICTeESD programme, there is a focus on

examining the use of technology as a tool in enabling critical action on Education for Sustainable Development. The entire Masters in ICTeESd programme is offered in a completely immersed online context. The project, locally coordinated by the Dean of School of Education, has been completed in October 2012. It aimed to develop a joint Master degree, deployed on an advanced virtual platform, in the field of ICT enabled ESD. The consortium that collaborated in the development of the joint master program comprised, apart from Frederick University, the University of Crete (coordinating institution, Greece), Daugavpils University (Lithuania), Dublin City University (Ireland), University of Graz (Austria), Uppsala University (Sweden) and Open University of Cyprus (Cyprus). Faculty from Frederick University participated in the development of learning units and extensive training activities in e-tutoring.

3. Pedagogical Framework by Frederick University

The Pedagogical Framework was developed and reviewed by the ELC. It provides an academically sound framework within which programs and content is to be developed. It describes the adopted mechanisms of achieving learning via distance and what is expected to be provided and finally it serves as guideline for course design. The proposed pedagogical framework was developed after resolving the following crucial issues: 1) the location of potential students (local, and/or European, and/or international students), 2) the international trends regarding the mode of delivery of distance learning programs (blended or fully immersed), 3) the requirements set by the Evaluation Committee of Private Universities (ECPU) and the Cypriot Council for Recognition of Degrees (KYSATS) in terms of accreditation of distance learning programs and the recognitions of degrees awarded from such programs. The Pedagogical Framework consists of three elements: 1) Directed Learning Online, 2) Dynamic Online Interaction, and 3) Assessment (See Pedagogical Framework Diagram). The three elements of the pedagogical framework include activities, in which students are expected to participate in while attending a fully immersed distance learning course.

3.1 Directed Learning Online

The Directed Learning Online activities aim to engage students in studying, reading, viewing or listening, permanent, static, online materials. These materials include notes, readings from various sources (i.e. books, articles, websites, blogs, online newspapers, etc), and presentations (simple, narrated, or annotated), podcasts, recorded lectures, video and audio conference, simulations or other multimedia resources for content delivery. The aim of directed learning online activities is to introduce and explain the key concepts for each course. In some cases the students might choose to buy required textbook(s), either in print or electronic form. Additionally, the required readings (i.e. articles) might not be directly provided to students, thus they will be required to locate them through online resources available.
The materials used could be classified into ‘mandatory content’ that must be studied by students or ‘supplementary’, which will be studied on a voluntary basis by students who wish to delve deeper into the thematic areas of a course. More specifically, students are also expected to independently engage (independent learning) in further study activities. These activities will require students to study additional publications within the field (i.e. readings that are beyond the core content included in Directed Learning Online activities). These materials include Journal articles or key texts in the specific discipline, online videos or podcasts of theorists within the field and any

other material that students will locate, on their own, from the vast online resources available.

3.2 Dynamic Online Interaction

The dynamic online interaction activities require students, either individually or collaboratively, to work in an online environment, and do not directly contribute to assessment. The online interaction activities are designed in such way that they provide students with opportunities to discuss, critique and query their understandings of the key concepts introduced during the delivery of a course. Within this context, online lectures or forums will be made available by instructors to serve as tutorial sessions. Within the same scope, dynamic online interaction activities include the creation of discussion groups, the utilization of instant messaging, the employment of online documents such as Google documents for collaboration, the development of wikis for collective writing, the utilization of blogs and/or microblogs such as Twitter for discussion, argumentation, critique and other social networking online tools, such as Facebook. These activities will allow students to build their online learning community. In order for the students to successfully complete the dynamic online interaction activities, it is imperative to study the mandatory content. Besides the above, the online interaction activities will require students to independently study additional resources in order to gain deeper knowledge and skills related to the course thematic areas.

3.3 Assessment

Assessment activities include formative/continuous assessment, summative assessment and self-assessment. Formative/continuous assessment derives from various online tasks such as: group interaction in Wikis, weekly submissions of reflective journals/diaries, individual submission of weekly blogs/video blogs, and participation in discussion forums. Formative/continuous assessment may also derive from offline interaction of students within an industrial, business, educational, clinical, community or other work-based setting that is necessary in the completion of participatory multimedia artefacts, e-portfolios or other forms of assessment. Summative assessment will also derive from final examinations (written and/or oral) administered at the university premises. In the case where final examinations will take place elsewhere, suitable premises will be used, and vigorous invigilation procedures will be set to assure the credibility of the results. Students' physical presence is deemed necessary. Self-assessment will be conducted via various types of activities (i.e. online quizzes, online multiple choices questions, reflective journals) and checklists given to students by the completion of each unit/module. Finally, the degree to which students were engaged in deeper learning and further study activities will be also assessed through the aforementioned assessment methods.

3.4 Mode of delivery and Potential Students

Frederick University's distance learning programs aim primarily on Cypriot, Greek, European, and international students. Given the above, the pedagogical framework and consequently the mode of delivery will be e-learning, also known as 'fully immersed'. The language of delivery will be English or Greek, depending on the program of study.

3.5 Accreditation and Recognition issues

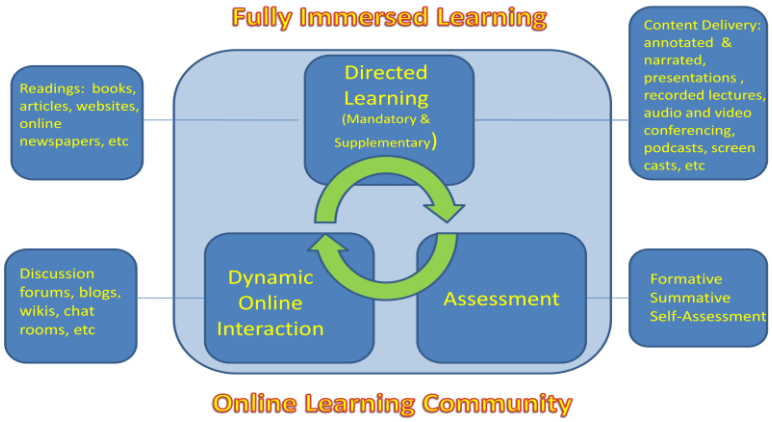
The Pedagogical Framework acknowledges the Quality Assurance as a key element for the effectiveness and success of the Distance Learning Programs. It is commonly

accepted that existence of adequate online resources, equality of educational experience of students, the type and intensity of student support (technical and academic), and suitability of materials made available to students are among the issues explored to assess quality in distance learning programs. The quality is monitored through continuous and final assessment. Additionally, the preparation of the teaching material by the authors, and the overall planning, structure and design of the programs of study and specifically the course study guides (explained below in detail), provides strong evidence of constant and serious concern for the quality of teaching and learning in distance learning programs. Among others, final written examinations are among the prerequisites of recognition of degrees awarded through distance learning. The provision for final written examinations as a major requirement for student assessment also alleviates mistrust towards the graduates of distance learning programs. Therefore, distance learning programs offered by Frederick University will be assessed, among others, by final written examinations.

3.6 Course Study Guides

The faculty of Frederick University involved in the development of the two distance learning programs, called authors, was asked to develop course study guides. The process of developing the course study guides was overseen by the Program Coordinators and the E-Learning Committee. The course study guides developed were based upon the Pedagogical Framework. Each course study guide is a multipage (on average 30 pages), detailed document comprehensively describing the course (course description, aims and objectives, key references and assessment summary) and it is divided in 13 weeks (a semester). A weekly (topic) breakdown with clear specification in each week includes the following parameters: 1) Learning outcomes, 2) Topics description summary (minimum of 2 single-spaced pages), 3) Keywords, 4) Directed learning activities (i.e. narrated presentations, annotated presentations, simple presentations, annotated notes, screencasts), 5) Planned synchronous and asynchronous communication and collaboration activities (recorded lectures, video, audio and text-conferencing, emails, discussion forums, blogs, wikis, social networking), 6) Assessment – formative (i.e. Quizzes, activity participation, assignments), summative (required physical presents, written or oral exams) and self-assessment, and 7) Reference and supportive material.

Pedagogical Framework Diagram for Distance Learning Programs



4. Trainings

The Pedagogical Framework guided also the development and implementation of a series of trainings provided by the ELC in collaboration to the LSU, to the faculty members. The very first training (Training Session Part I) entitled "Initiation", aimed in informing the representatives from all the University's Schools and Departments about the Distance Learning Programs. Specifically, presentations on the distance learning institutional plan, strategy, and pedagogical framework were given.
During Training Session Part II, entitled "Course Design", the core teams of the distance learning programs under development (i.e. course coordinators and authors) were provided the following: 1) Deeper familiarization with distance learning concepts, 2) Good and bad practices - differences from conventional teaching, 3) What should and should not be provided (expected) to (from) students, 4) the Pedagogical Framework, and 5) Structure and samples of Course Pack design and course study guides.
Part 3 of the Trainings focused on Content Development and it was mandatory for all course authors to attend. The authors developed the appropriate knowledge and skills in using the LMS platform (in this case Moodle) employed for the delivery of the distance learning programs (features, course and student management, content uploading, activity design, assessment methods). Additionally, the authors were trained on how to employ various communication, collaboration, content development and authoring tools. Finally, they were trained on how to map course design to online content. Future training sessions will be also provided since the ELC aims to continuously professionally train the faculty involved in the Distance Learning Programs.

5. The ToolBox

Besides the learning management system employed (Moodle), numerous communication, collaboration, content development, and authoring tools were employed for addressing the needs of the Distance Learning Programs. A sample of the tools employed is presented in the table below. The majority of the tools is embedded in the learning management system (Moodle) and operate in a fully integrated mode.

Table 1 – ToolBox Sample

Communication Tools	**Collaboration Tools**	**Content Development/ Authoring tools**
Email	Discussion forums	Narrated and Annotated presentations and notes (Adobe Presenter, Camptasia, Snag it, Jing)
Text conferencing (chat rooms, instant messaging) (Moodle Feature, Abobe Connect)	Blogs (Moodle feature, Blogger, Wordpress)	Screencasting & screencapturing tools (Adobe Presenter, Camptasia, Snag it, Jing)
Audio conferencing (Adobe Connect)	Wikis (Moodle feature, Wikispace)	M.S. Office (i.e. M.S. Word, M.S. Power Point, M.S. Excel)
Video conferencing (Adobe Connect)	Documents sharing (i.e. Dropbox, Drive)	Google documents
	Videos & pictures sharing (i.e. Youtbe, Flicrk)	
	Social/ Educational Networking (i.e. Facebook, LinkedIn)	

5. Closure

The committee that evaluated Frederick's Distance Learning philosophy, strategy and pedagogical framework reported that the "University has developed a very good strategy to offer Distance Learning studies [...]. The educational model of the

Distance Learning is based primarily on electronic support and minimal face to face contact between students and faculty that is a viable and effective alternative model" (pgs 4-5). Additionally, the evaluation committee mentioned that "The e-learning system was carefully designed [...]. The planning of the proposed e-learning system has considered every aspect including the training of instructors, the specifications for learning activities and content of teaching material as well as the assessment as an integral element of the quality assurance of the educational services [...]. The plan and teaching staff specifications are very thorough and well thought [...] and the structure and synthesis of the content is rather impressive" (pgs 2-3).

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