

The Online Master of Distance Education (MDE): Its History and Realization

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The Online Master of Distance Education (MDE): Its History and Realization

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The development of the Master of Distance Education (MDE) program began in 1995, when Ulrich Bernath, Director of the Center for Distance Education at Carl von Ossietzky University of Oldenburg/Germany, and Eugene Rubin, at that time Director of the Office for Instructional Design at the University of Maryland University College/USA conceptualized a virtual seminar for professional development in distance education to address what they perceived as two critical needs:

- The need for faculty and administrator training programs in which new distance education faculty and administrators can develop a broader perspective of the general foundations of distance education and can learn critical knowledge and skills in the field.
- The need for a global perspective among distance education faculty and administrators so that they can benefit from the knowledge of how other institutions approach distance education and solve problems, particularly in cross-cultural contexts. (cf. Bernath, 1996; Rubin, 1997)

Given that need for professional development and training in distance education, the authors submitted a proposal in 1995 to participate in the "Global Distance Learning Initiative" of the International Council for Open and Distance Education (ICDE), which, in collaboration with the AT&T Foundation, offered a series of grants for research and exploration in the area of distance education. They were awarded a grant for 1996/97 to develop and test the "Virtual Seminar for University Faculty and Administrators 'Professional Development in Distance Education'".

1. The Virtual Seminar for Professional Development in Distance Education

The Virtual Seminar was offered in 1997 as a successful experiment, and in 1998 two further Virtual Seminars were run on a self-supporting basis. The three Virtual Seminars attracted 127 faculty and distance education administrators from 24 different countries.

The teaching faculty as well as most of the participants, experienced for the first time a virtual seminar, organized as an asynchronous communication process in an online learning environment.

Formal and informal evaluations of the Virtual Seminars took place externally as well as internally. During the course of the Virtual Seminars evaluation reports and experiences were published in various articles (cf. Fritsch, 1997; Bernath, 1998; Bernath & Rubin, 1998a, 1998b, 1999, and 2001). A final report and documentation of the first Virtual Seminar has also been published (cf. Bernath & Rubin (Eds.), 1999) and reviewed (cf. Beaudoin, 1999). It contains all of the components of the project's Website including a complete transcript of all the seminar discussions and participant projects, as well as the formal evaluations of the project and the web server statistics.

Much of what is described below about the Virtual Seminar can be found in the mentioned publications. Our experiences were subsequently shown to be important and represent the values and methodology of our successive efforts. The experiences with and reflections on the Virtual Seminar helped to shape the future pedagogy of the Master of Distance Education program.

1.1. The Curriculum of the Virtual Seminar

The curriculum of the Virtual Seminars was conceived as a mix of both theory and practice. The concept of "theory" was a broad one, which encompassed the foundations of distance education (its history and formal educational theories), a broad conceptual look at national, cultural and institutional structures, and an overview of the effect of technology on the field. These were broad categories of discussion, and represented an attempt to get new distance educators as well as program directors in distance education to appreciate how distance education had evolved and to identify the important influences and issues of the present.

The idea was to ask top experts within the field of distance education to act as an expert mentor in each of the four areas of "theory" (see the syllabus outline below). Our four experts were Börje Holmberg for the *Foundations*, Otto Peters for the *Theories*, Tony Bates for the *Technology*, and Gary Miller for the *Institutional Models and Organizational Trends in Distance Education* modules. It was assumed that participating faculty and administrators would need a strong reason for their continuing involvement in the Virtual Seminar and that the presence of these top "name" experts would act not only as a direct source of information and opinion within each topic area, but also be a "motivator". We learned that the involvement of our distinguished experts in the discussions (with their readings and their live participation) were the key ingredients which had the most relevance in achieving the goals of both the students and the organizers of the Virtual Seminar.

Table 1: The Syllabus Outline of the Virtual Seminar in Fall 1998

Pre-Seminar Week	Introduction to the conferencing system
Week 1	Foundations of Distance Education
Week 2	
Week 3	Theories in Distance Education
Week 4	
Week 5	Technology of Distance Education
Week 6	
Week 7	Organizational Trends in Distance Education
Week 8	
Week 9	Distance Education Applications
Week 10	Summary and Conclusion
Open Forum	Discussion of Seminar Experiences

1.2. Experiences from the Virtual Seminar

The most striking experiences bear noting:

- **Team-teaching across time-zones**

The online learning environment and the asynchronous mode of communication in the Virtual Seminar allowed the two seminar leaders to team-teach across time zones. The seminar leaders planned and executed the seminar from their respective home universities across the Atlantic. This, in fact, turned out to be one of the hidden objectives of the seminar; to test whether this kind of Internet collaboration was feasible.

- **Knowledge-building communities**

The Virtual Seminars featured a "visiting expert" model, a unique opportunity to interact with distinguished scholars and practitioners such as Börje Holmberg, Otto Peters, Gary Miller, and Tony Bates for live interaction with the participants during an assigned period of time within the syllabus of the Virtual Seminar.

Otto Peters observed that these seminars appeared to be virtual knowledge-building communities (cf. Peters, 1998). While this is not a new concept in the literature on computer-mediated communication (cf. Scardamalia & Bereiter, 1994), Peters' observation summed up quite well the experience of most of the participants involved in the seminars (cf. Otto Peters in this volume).

Each seminar was a community in which the participants met, talked, agreed, sometimes strongly disagreed, sympathized, empathized, and formed relationships (several of which have lasted beyond the end of the seminars). And like other types of communities, each seminar was different from the others. Each had its own "feel", its own pace, group dynamics, and its own emphasis on content matters. It was clear that the individual personalities of the participants and their backgrounds played a role in how the community functioned.

Thus, the Seminar's design was one of a meeting of peers and not one of a relationship between students and teacher. The seminar leaders were well aware that they were dealing with qualified professionals, who were actively employed in academia, business, and/or government.

- **The cross-cultural dialogue**

Another goal of the Virtual Seminar was to enable a cross-cultural sharing of experiences, ideas, and opinions from participants from all over the world. This was deemed to be a potential positive outcome because a) distance education occurred in some manner in almost all countries of the world and in a number of ways, while using a wide variety and different levels of technology; b) distance education was increasingly becoming a world-wide enterprise in that courses could be delivered almost anywhere in the world; and c) the cultural and regional bias that each participant brought to the discussion would result in a broader and deeper learning.

With participants from 24 countries of origin, the three seminar experiences indirectly supported the above supposition that the cross-cultural aspects of the seminar would result in positive outcomes. By being globally accessible via the Internet, the content and interaction allowed participants to differentiate and generalize across cultural borders and among the diverse practices within the field of distance education. It gave depth to the learning and forced the participants to think beyond their own cultural and

environmental constraints. Not only were a broad variety of opinions expressed, but these often prompted discussions that reflected a more comprehensive analysis and understanding of critical issues. This was particularly true of the technology related discussions, where participants from nations that were not highly technology enabled often came up with innovative and useful solutions to problems that did not occur to participants from high technology countries.

- **New interpretations of "activity" in a virtual seminar**

In many respects the communication processes in the Virtual Seminars appeared to be new and unknown for most of the participants at that time. From various points of view the "activity" of participants in a virtual seminar became a matter of research.

The notion of "witness learning" (Fritsch, 1997) was introduced to interpret positive evaluation results of participants with low or no visible activity levels, which then led to further studies on the "invisible learner" (cf. Beaudoin in this volume) in order to better understand invisible activities that remain "behind the screen".

Helmut Fritsch, the formal evaluator for the first Virtual Seminar, looked at both the on-screen participation in the seminar as well as the questionnaire data from the participants. What struck him most was the discrepancy between measurable, visible participation (appearing on the screen with postings during the discussions) and the self reporting of many of the participants that they were "active", only they did not "say" anything. In other words, many of the participants reported that they regularly read the discussion (sometimes every day), but for a variety of reasons chose not to actively submit a written contribution. It was clear that if one only considered the written contributions, the participation rate appeared to be only about 50% (and even then, not at all times). Yet, it also seemed clear that many whom we regarded as functional drop-outs were not. At the end of the seminar these non-contributors reported that they had learned considerably from the seminar. Fritsch (1997) coined the term "witness learning" to indicate that these "passive" participants were in fact active learners, and that they reported to have learned from witnessing the interactions among the "active" participants, leaders, and experts.

The notion of the "ripple effect", coined by Bernath, (cf. Bernath & Rubin, 2001) was introduced to better understand a specific characteristic of asynchronous communication, in which postings to the discussions in computer conferences seemed much like throwing a stone into the water (the incoming messages) and creating ripples that expand outward in each recipients head (pondering on the content of the message). In asynchronous seminar discussions one can "work" on the answer to be given. This pondering allows one to react whenever one feels ready and while doing so, to go in-depth and raise new ideas and notions in the seminar. Furthermore, the written contributions to the discussions remain and have effects on later discussions. The asynchronous computer conference to a certain extent appeared to be a renaissance of the written word in communication.

- **The volume of interaction**

All participants of the three Virtual Seminars experienced the sheer volume of the interaction in the Virtual Seminars as formidable. Participation data were quite deceptive.

The first seminar's data showed that the average length of a comment posted by a participant to the discussions during the weeks with a "visiting expert" was 187 words (with a range of 76 to 477 words), which fills half of a typical single spaced typewritten

page of about 350 words. Each participant contributed an average of only one comment in each of the ten weeks. Yet this modest amount of postings, when multiplied by 43 participants, resulted in over 66,000 words in ten weeks and an equivalent of more than 160 typewritten pages. The empirical data clearly show that online activity can be overwhelming to both the teacher and the student (see Table 2, 3, and 4). Consequently, all participants in an asynchronous Virtual Seminar need to develop new ways and means to manage such an unknown flow and volume of written communication.

Our data suggested that 40+ participants may be too high for the type of virtual seminar with its emphasis on teacher-student and student-student interaction. Our concerns about work and information overload in computer-mediated learning and teaching were very much in line with earlier findings compiled in Harasim, Hiltz, Teles & Turoff (1995).

Table 2: Numbers of Words Contributed to the First Virtual Seminar (Jan – March 1997)

	Words
Bernath/Rubin (as a team)	10,765
Bernath	8,472
Rubin	9,483
Total Visiting Experts	26,937
Total Leaders and Visiting Experts	61,178
Total Participants	66,324
Total for the Seminar	127,502

Table 3: Participation Patterns in the Virtual Seminar No 3 (Sep - Nov 1998)

Module	contributions in numbers by			participants (N=41)		contributions in KB ⁴⁾	
	experts	participants	Seminar Leaders	„active“ ¹⁾	% of all contributions ²⁾	total	average
Foundations in DE with Börje Holmberg	40	140	10+12 ³⁾	25	69	356	1.8
Theories of DE with Otto Peters	40	66	10+10	17	52	290	2.3
Technology in DE with Tony Bates	28	127	8+10	19	73	312	1.8
Organizational Trends in DE with Gary Miller	26	42	9+12	11	48	176	2.0

1) "Active" participants here are defined as those who participate in the online discussion and appear "on screen."

2) The % of contributions is the participants' portion of all contributions posted in each respective Module.

3) The Seminar Leaders contributed as moderators (first number) and individually as discussants (second number).

4) KB= kilobytes

Table 4: Comparison of Participant's Participation Patterns in Three Virtual Seminars with Invited Experts

Modules with visiting experts	1997			1998 I			Rescheduled sequence of Modules	1998 II		
	Partici-pants	Participants' contributions		Partici-pants	Participants' contributions			Partici-pants	Participants' contributions	
	(N=43)	No.	%*	(N=43)	No.	%*		(N=41)	No.	%*
Foundations in DE with Boerje Holmberg	27	81	64	28	83	59	Foundations in DE with Boerje Holmberg	25	140	69
Institut. Models of DE with Gary Miller	25	50	57	23	79	69	Theories of DE with Otto Peters	17	66	52
Theories of DE with Otto Peters	18	27	44	14	83	60	Technology in DE with Tony Bates	19	127	73
Technology in DE with Tony Bates	20	34	61	15	78	63	Org. Trends in DE with Gary Miller	11	42	48
Average	22,5	48		20	81			18	94	
Total		192			323				375	

* The % of contributions is the participants' portion of all contributions posted in each respective Module.

- **The impact of the new technology**


The web-based conferencing system selected was HyperNews, which is a Unix-based "threaded" system. The web-based seminars were positive examples of the environment for which the participants were being trained (see the following screen shots from the Virtual Seminars in Fall 1998 and Spring 1997). This software was chosen because it was easily accessible through a web browser on a minimally configured system. Nevertheless, a few participants with slow connections faced technical problems.

Virtual Seminar on Distance Education - Netscape

Date: Beibehalten Ansicht Seite: Communicate Hilfe

Zurück Neu laden Anfang Suchen Guide Drucke Sitemap

Leitfaden Netsite: <http://www.usuc.edu/de/seminar3/index3.htm>



Virtual Seminar on Distance Education

Professional Development for University Faculty and Administrators
September 7 to November 13, 1998

Announcements

Welcome to Summary and Conclusions

Distance Education Applications continues
Please check both Modules for comments.

Please complete the Final Evaluation

1. Please complete the Final Evaluation
2. **SUBMIT YOUR BIOGRAPHY NOW!**
3. Introduction and Orientation

Introduction to our Conferencing System	Discussion of Seminar Experiences
Module 1	Module 2
Evolution of Distance Education	Theory in Distance Education
Module 3	Module 4
Technology in Distance Education	Organizational Trends in Distance Education
Module 5	Summary
Distance Education Applications	Resources and Conclusions

[Biographies and Participant List](#)

[Seminar Feedback](#)

[Conference Assistants](#)

[Hyperflex Instructions](#)

[Virtual Seminar Announcement](#)

[Mail for assistance](#)

Document: Unread

Start Pages Mail Web jobs - Netscape Microsoft Word Virtual Seminar in Dis... 12/4

Netscape - [Virtual Seminar Week 2]

File Edit View Go Bookmarks Options Directory Window Help

Location: http://www.usuc.edu/de/cgi-bin/Type/News/SECURED/98/seminar/week_2.html

What's New! What's Cool! Handbook Net Search Net Directory Software

[jobs - not only a dead-endness in the field of DE](#) (BoE Schwenzer) - 1/13/97

STRUCTURED DISCUSSION PLEASE READ THIS! (Ulrich Bernath and Eugene Rubin) - 1/14/97

TOPIC 1: Understanding Boerje Holmberg's article (Ulrich Bernath and Eugene Rubin) - 1/14/97

[This is where my initial response belongs](#) (William Jones) - 1/14/97

[Taking the Distance Out of Distance Education](#) (Zane Berge) - 1/14/97

[Boerje Holmberg to Zane Berge](#) (Boerje Holmberg) - 1/15/97

[Learning in groups](#) (Marino Ostia) - 1/16/97

[Is DE a "second class" education?](#) (Erwin Wagner) - 1/16/97

[To Erwin Wagner from Boerje Holmberg](#) (Boerje Holmberg) - 1/16/97

[On-the-job learning is first class](#) (Marino Ostia) - 1/16/97

[Training on the job a first class challenge](#) (Erwin Wagner) - 1/17/97

TOPIC 2: What do we learn from history? (Ulrich Bernath and Eugene Rubin) - 1/14/97

[The situation in Eastern Europe](#) (Ladislav Sametlik) - 1/14/97

[My interpretation](#) (Ulrich Bernath) - 1/15/97

[To Ul Bernath from Boerje Holmberg](#) (Boerje Holmberg) - 1/16/97

[Question](#) (Konrad Blum) - 1/16/97

→ [Boerje Holmberg's answer to Konrad Blum](#) (Boerje Holmberg) - 1/16/97

[Integration of distance education in mainstream education](#) (Marino Ostia) - 1/16/97

[Lackluster there is some time left for further considerations](#) (Ulrich Bernath) - 1/16/97

TOPIC 3: Distance Education and Independent Learning, etc. (Ulrich Bernath and Eugene Rubin) - 1/14/97

[Independent learning vs. control](#) (John Floyd) - 1/14/97

[structure vs. control](#) (Maryam Alani) - 1/15/97

→ [To Maryam Alani from Boerje Holmberg](#) (Boerje Holmberg) - 1/16/97

→ [Structure & control](#) (John Floyd) - 1/16/97

[Boerje Holmberg to all seminar participants](#) (Boerje Holmberg) - 1/15/97

[Interactions between Open learning, independence, autonomy and control](#) (Wesley G. Markinton) - 1/15/97

Document: Done

1.3. Conclusions from the Virtual Seminar

Our conclusions from the Virtual Seminar experience became crucial for the development of the Master of Distance Education. In essence we learned, that:

- A virtual seminar involves reading and writing and this demands much of a participant's time. The written contributions in the asynchronous discussion process differ from the synchronous and flighty chat, and are fundamentally different from a conventional seminar. Engaging in a virtual seminar and using computer conferencing is a much more reflective process than face-to-face interaction (as already mentioned with respect to the "ripple effect"). One's thoughts are typed, reread, edited and/or added to and even spell-checked. After carefully inspecting what has been written, the work is then submitted for others to read. These written words are recorded and thus persist. They can be read and reread by others long after the end of the seminar.
- The discussion process in the Virtual Seminar needs direction and moderation to make the best use of the opportunities offered by media and technology. In particular, it is essential to get as many activities as possible to the "surface of the screen". There is also an emotional component to the seminar as well. Participants are not only positively or negatively affected in the discussions, but also reported the establishment of varying degrees of personal relationships with fellow participants. In our opinion this emotional component was critical to the success of the seminar. The positive results of the Virtual Seminar likely correlate with the interest of the participants in their own growth of knowledge and acquisition of skills. Clearly the relevance of the content is related to the participant's persistence as well as their attitude, and our data indicated a positive affect and a continuing involvement of the participants in the process of the seminar. It is also worthwhile mentioning that the seminar experience has proven to be applicable in other contexts. We learned this e. g from participants who used HyperNews for their own teaching and from others who applied their own seminar experiences to other situations in the online learning environment.

One of the most important outcomes of the Virtual Seminar was the joint decision by the two seminar leaders and their respective institutions, the University of Maryland University College (UMUC) and Carl von Ossietzky University of Oldenburg, to pursue the design, development and delivery of a Master of Distance Education degree. The decision came directly from the original intent to develop a means to train faculty and administrators in the area of distance education in the light of the new technologies, the emerging market and growing importance of distance education worldwide.

2. The Transition from the Virtual Seminar to the MDE Program

2.1. The Planning of the Master of Distance Education (MDE) Program

The Virtual Seminar had been a collaborative endeavor of two individuals with the agreement of their respective institutions. To expand this concept both realized that they needed to more directly involve each institution. As a result of the authors' extensive collaboration on the curriculum and the structure of a possible program, an outline of a full graduate program was developed, and a proposal was made by the end of 1998 to both institutions for an online Masters program in distance education. It was originally

designed to begin within one year and the full development was scheduled to take five years. The UMUC Executive accepted the proposal and took the lead for the establishment of the Master's program, and we were asked to start the program within six months. UMUC was in a unique position to capitalize on both its international reputation as a distance education institution and its resident expertise in this discipline. Further, UMUC's ability to serve students worldwide through a well established distance education infrastructure placed it in a strong competitive position with other similar programs.

The proposal for the Master of Distance Education was submitted to the Maryland Higher Education Commission (MHEC) in March 1999 (cf. MHEC Proposal, 1999). This was a requirement for all new degree proposals in the State of Maryland. The program was consistent with UMUC's mission to provide higher education opportunities to adult, part-time students. Excerpts from the MHEC proposal can be found in the appendix to this article. It gives the reader detailed information regarding market analyses, potential needs, related programs at the time, and the program's planned goals.

In parallel to UMUC's request for approval of the Master of Distance Education program by the State of Maryland, Oldenburg University submitted a grant proposal to its respective State of Lower Saxony in Germany to receive funds for the development and testing of four courses aimed at constituting a Foundations of Distance Education certificate program as an integral part of UMUC's Master of Distance Education program.

2.2. Significant Changes to the Proposed Program

The excerpts in the appendix give the reader a sense of the issues that were put forth for the program and reflect the environment at the beginning of the program's planning. However, as in all projects, things changed as time progressed. Some of these changes are significant and the notable ones are listed below:

While the proposal was formally approved by MHEC, and UMUC formally committed itself to the program by announcing its start by the Spring of 2000, the program began without a significant investment in staff (only the program directors from the partnering institutions). Despite the fact that Oldenburg University received some funds that were approved by the State of Lower Saxony for a limited period of time (from September 1999 to December 2000), the program was from the beginning under pressure to generate revenue to justify staffing. Once the commitment was made to offer the program, there was also a commitment to provide courses in a timely manner so students could complete the program in the shortest amount of time. As a result, it was proposed that the original developmental schedule (5 years) be compressed into 2½ years to generate faster program growth.

All students are required to take the *Foundations of Distance Education* course as their first course in the program. This course was conceived with a gate-keeping function, determining the number of students that could be enrolled in the program. Thus, the capacity of this course dictated how many students entered the program. Originally, based on the experience with the Virtual Seminar and related to the concept of visiting experts, a maximum of 25 students per term was viewed as the starting capacity of the program. However, given the pressure for revenue, the capacity of the *Foundations* course was doubled (50 per term) by offering multiple sections without changing the

visiting expert model. This occurred before the program had actually started. Within one year, the capacity of the *Foundations* course was raised to 75 per term. The grant to Oldenburg University by the state government of Lower Saxony facilitated the acceleration of the developmental schedule.

2.3. The Formalization of the Partnership

The Virtual Seminar was based on a cooperation between directors of their institutions acting within their respective areas of responsibilities. Once the planning of the MDE was well underway, the relationship between the institutions needed to be addressed. Knowing that institutional agreements are often difficult and complicated, it was felt that a successful collaboration needed to be straight forward and built on a feeling of trust and in a win-win environment. Since the personal working relationship already existed as a result of the Virtual Seminar, a simple yet fair set of terms needed to be negotiated. It was agreed that UMUC would be the degree-granting institution with Oldenburg as a partner contributing a certificate and courses within this degree. Furthermore UMUC would be responsible for all of the student administration as well as for the learning management system and the web-based delivery system. Each institution would develop its respective courses and hire and manage its faculty. It was further agreed that course and faculty development would be a shared responsibility.

2.4. Course Development

The content and design of the Virtual Seminar was the basis for the initial *Foundations* course in the Master's program. The syllabus and teaching methods of this first course are directly based on those of the Virtual Seminar. The Virtual Seminar was an ideal model for a broad look at distance education and would serve as an effective introduction to the field for beginning graduate students. We planned to continue the team-teaching model and use a somewhat modified visiting expert guided structure. For us, the Program Directors and former seminar leaders, this was the logical outcome of the Virtual Seminar. However, the Virtual Seminar needed additional development in order to make it appropriate for inclusion in a graduate program. It was necessary to add assessments and to expand the content to fit a 15-week term. Furthermore the program served a broader constituency, including professionals who were involved in distance education enterprises within the educational, business, government, and not-for profit sectors.

3. The Realization of the Online Master of Distance Education (MDE) Program

In September 1999 the online Master of Distance Education (MDE) program was officially launched, and in January 2000 the program started with the first *Foundations of Distance Education* course. The complete degree program and associated certificates are offered entirely online via WebTycho, UMUC's web-based platform for course delivery. It was agreed that the pace of development would proceed according to the needs of the initial students. Since the program was aimed at a working adult population it was assumed that most students would not take more than two courses per term. This is based on UMUC's experience in other graduate programs.

3.1. Description of the MDE Program

The mission of the Master of Distance Education is to qualify present and future managers of distance education. Given that distance education - and e-learning - have expanded so rapidly in the past few years in both public and private education, as well as in the training sectors, the program educates the multitude of new managers and future leaders necessary in this field. These managers need to be qualified as leaders, since they will be required to be active advocates for distance education and training in their organizations and need to manage significant change processes that affect the entire organization.

3.1.1. Program Curriculum (as of Fall 2002)

The 36-credit MDE program consists of seven core courses and four elective courses, and the additional requirement of a final integrative project. The MDE curriculum is intentionally structured to provide students with both breadth and depth in this field of study. When UMUC and Oldenburg first joined to design the program curriculum, it was decided that an appropriate balance between the pedagogical, technological and economic aspects of distance education, and the broader theoretical, historical, and social views of this field should be sought. Thus, the program curriculum seeks to position the evolving role of distance education within a larger societal framework. Whereas many similar graduate-level programs may focus more narrowly on instructional design and development, educational technology, or administrative and management issues, the MDE takes a more multidisciplinary approach by integrating each of these subject areas. Indeed, as the program has matured, it has moved closer to a focus on leadership, which requires such a multidisciplinary approach.

MDE courses are structured as graduate-level seminars in which students and faculty are immersed in the literature, research, and scholarship from major contributors in the field of distance education. Students are challenged to critically analyze the concepts and issues they encounter in their readings and to apply their own professional experiences in the class discussions. Several other MDE courses have also incorporated the "visiting experts" model, designed to bring distance education scholars into the classroom and facilitate individual modules or short-term series of discussions.

Syllabi for the MDE courses, which are all three credits, have already been developed and are available at the MDE homepage: <http://info.umuc.edu/mde/>. Additional courses are still under development.

The seven required core courses are:

Foundations of Distance Education (OMDE 601)

The goals of the course are to provide the student with: a foundation of knowledge, skills, and attitudes that are required by a competent practitioner of distance education. Students explore the critical concepts and issues identified in the distance education literature and critically examine the history and theories of the field. The course was developed by Ulrich Bernath (Germany) and Eugene Rubin (U.S.) in collaboration with Börje Holmberg (Sweden) and Otto Peters (Germany). This course must be taken in the first term the student is enrolled in the program. It is taught in multiple sections by a team of faculty with Michael Beaudoin (U.S.), Ulrich Bernath, Thomas Hülsmann (Germany), Christine Walti (Germany/U.S.) and visiting experts Börje Holmberg (Germany/ Sweden), Otto Peters (Germany), and Michael Moore (U.S.).

Distance Education Systems (OMDE 602)

Distance education functions within the organizational structure of educational institutions, businesses, non-profit organizations and government will be examined. Students analyze operational, logistic, and regulatory systems within distance education and training organizations. A range of theories pertaining to systems in general, systems in education, systems needs in distance education, and systems approaches to organizational development are introduced. This course was developed by Eugene Rubin, and is presently taught by Inez Giles (U.S.).

Technology in Distance Education (OMDE 603)

This course explores the role of technology in the design, development, and delivery of distance education. Students critically examine the relationship between technology and the goals of the educational/training organization. Various uses of technology are explored in the areas of course development, asynchronous and synchronous distance course delivery, and management/administration. The relationship of information technology and distance education is explored, and special emphasis is placed on computer-based technologies. This course was developed by Judy Roberts (Canada).

The Management of Distance Education 1: Cost Analysis (OMDE 606)

The course places the economics of distance education in the larger context of economics of education. A variety of methodological approaches (including cost/benefit and cost/effectiveness analysis) are applied to the distance education context. A variety of costing techniques and economic models are explored and applied to different institutional forms and levels of distance education. This course was developed by Thomas Hülsmann. It is taught by Thomas Hülsmann with visiting experts Greville Rumble (U.K.) and Tony Bates (Canada). The title of this course was changed in Spring 2003. Before that it was *OMDE 606 Economics of Distance Education*.

The Management of Distance Education 2: Leadership in D. E. (OMDE 604)

This course introduces the student to the organization, management, and administration of distance education systems. Specific issues include roles (both traditional and unique), leadership, human resource management, employee relations, the role of information technology, student support services, faculty/staff development, inter-institutional collaboration, funding, delivery systems, and policy. Both the education and business environments are explored in this course, and students gain an understanding and skills that allow them to function effectively in either type of organization. This course was developed by Eugene Rubin and Jim Gelatt (U.S.). It will be taught by Jim Gelatt and Merrily Stover (U.S.) as of Spring 2003.

Instructional Design and Course Development in Distance Education (OMDE 607)

This course examines the process of instructional design and development in a distance education and training context. Students critically evaluate the relationship between instructional design and technology. Various models of instructional and course development are considered (e.g., large vs. small scale course development, centralized vs. decentralized course development, individual faculty/author vs. team course development). Students apply the instructional development process by developing a small instructional unit. Special emphasis is given to web-based instructional design and delivery. This course was developed by Eugene Rubin and Inez Giles (U.S.). It is now taught by Som Naidu (Australia).

Student Support in Distance Education and Training (OMDE 608)

This course focuses on planning and management of learner support and interaction within modern distance education and training systems. Included are all types of tutorial and instructional assistance (mentoring, tutoring, teaching), advising and counseling services, library, and administrative services (admissions, registration, prior learning assistance, credit coordination, help desk). In this context, students explore topics such as learner retention, the role of evaluation and applied research, serving learners with special needs, and practitioners' professional development, and develop an understanding of contextual factors that determine the choice of particular learner support models. In the final course unit, students work in teams to custom design learner support services for an educational or training provider. The course was developed by Jane Brindley (Canada) and Alan Tait (UK) and is taught by Jane Brindley and Christine Walti. This course was OMDE624 until the 2002 Spring term.

Students choose four of the following elective courses:

Issues in the Delivery of Library Services to Distance Students (OMDE 611)

An overview of the design and delivery of library services and education to distance education students is provided. The course reviews the types of distance technologies used and how the library can be integrated into the delivery of courses in a variety of formats. In addition, this course covers methods for developing and evaluating library instructional materials, primarily in web-based formats, to teach distance education students library research skills. This course was developed by Ilene Frank (U.S.).

Intellectual Property and Copyright (OMDE 614)

This course will provide an overview of intellectual property issues that impact digital distance education. As both creators and users of copyrighted information, educators are affected by the rules surrounding ownership and use of information. Most distance educators are not aware of the implications of copyright law and digital delivery of materials and make preventable mistakes. This course will provide educators with a general framework for addressing issues such as ownership of electronic course materials, determining whether a work is in the public domain, proper use of copyrighted works at a distance and licensing mechanisms and processes. Prevention of plagiarism in the digital environment will also be addressed. Finally, participants will discuss whether recent legislation that has amended the Copyright Act of 1976 achieves the goal of advancing knowledge and learning. This course was developed by Kim Bonner (U.S.).

Learning and Training with Multimedia (OMDE 620)

This course focuses on the design and evaluation of multimedia learning and teaching environments in higher education settings as well as corporate training contexts. Multimedia is broadly defined as learning from verbal and visual material. Students are introduced to principles of multimedia design based on cognitive theories and constructivist approaches to learning. Pedagogical aspects of technological innovations in distance education, promises and pitfalls of multimedia learning, media selection, and computer-supported collaborative work (CSCW) will also be addressed. Students explore the characteristics, possibilities and limits of various multimedia products, develop criteria for their evaluation and design their own concept for a multimedia project. The course was taught (up to Spring 2003) by Joachim Hasebrook (Germany) as OMDE 605 and was redesigned by Hilko Donker and Olaf Zawacki (Germany), and will be taught by both beginning in Spring 2003.

Training at a Distance (OMDE 621)

This course examines the role of distance training in business, non-profit, and government organizations. Students explore a wide variety of issues, problems, and solutions in the areas of: web-based training, the economics of distance training, distance technology in the business organization, synchronous vs. asynchronous interactive tools, collaborative and problem solving tools, authoring tools, insourcing vs. outsourcing, and the role of multimedia in distance training. Specific emphasis is given to the concept of the Corporate Virtual University and its design and operation. This course was developed by Greg Kearsley (U.S.).

The Business of Distance Education (OMDE 622)

Distance Education/Training is emerging within a highly competitive environment. Not only does the manager need to know about cost effectiveness issues, but he/she also is often responsible for such issues as marketing (local, national, and, increasingly, world-wide), insourcing vs. outsourcing, balancing the strong entrepreneurial focus of distance education within more traditional service-based organizations, and whether the distance education unit should be integrated or self-supporting. The course includes emphasis on the development of business and marketing plans and the use of common business analysis tools. In addition, students explore the rapidly expanding role of private and publicly traded education companies that are marketing new distance education products and services to the consumer market. This course was developed by Eugene Rubin.

Web-Based Learning and Teaching and The Virtual University (OMDE 623)

The Virtual University is a new concept that has recently evolved as a result of the emergence of the World Wide Web as a means of delivering higher education. This course covers the brief history, definitions, and implementations of the concept of the Virtual University in both higher education, government and business. The rapidly evolving literature of web-based learning is explored, with special emphasis placed on web-based pedagogy and course design. In addition, the impact of web-based technologies is discussed. The student begins developing web-based learning environments and uses web-based communication tools. This course was developed by Yolanda Gayol (U.S./Mexico).

National and International Policies for Distance Education in Developing Countries (OMDE 625)

This course is an exercise in stocktaking. It will examine the purposes for which distance education has been used and the audiences reached. It will analyze the roles played by international agencies including bilateral and multilateral funding agencies, the UN family, regional bodies, and specialist agencies. The goal of the course is to develop and use typologies in order to examine the advantages and disadvantages of a range of organizational models for distance education at various educational levels, relating to audience, educational purpose, and choice of technologies. This course was developed by Thomas Hülsmann in collaboration with Hilary Perraton (UK).

Technologies for Distance Education in Developing Countries (OMDE 626)

This course is explorative in character. It examines the range of educational technologies that assist institutions in reaching various off-campus audiences (from print, through broadcasting to satellite links and computer-based systems). The course will examine the use of computers in school for (a) information science and computer studies (b)

application to the general curriculum (c) access to internet (d) school linking. It will give an assessment of current and planned ventures including emerging rich-country policies and institutions, the changing role of the private sector, the role of conventional universities in relation to e-learning and the new international players (e.g. African Virtual University). The course was developed by Thomas Hülsmann.

Advanced Technology in DE 1: Synchronous Learning Systems (OMDE 631)

This is an advanced course that builds upon OMDE 603 Technology in Distance Education. The course focuses on synchronous (real time) technologies that are used for DE such as satellite broadcasting, cable channels (CATV), telephony, wireless technology (WAP), web-based technologies such as push, pull, compression, and streaming. Also, students will be introduced to synchronous tools such as MOOs, MUDs, ICQ, text and audio chat, 2D-3D, application sharing, and white board. Students critically examine instructional-led learning environments and audio and video systems such as: interactive TV, site-based videoconference, and desktop videoconference. Technical details regarding standards-based technologies, telecommunications technologies, and computer technologies are also examined so students will be able to effectively manage the implementation of these tools. This course was developed by Gila Kurtz (Israel).

Advanced Technology in DE 2: Asynchronous Learning Systems (OMDE 632)

This is an advanced course that builds upon OMDE 603 Technology in Distance Education. The course focuses specifically on asynchronous (non-real time) technologies such as computer-mediated communication (computer conferencing), e-mail, listservs, archived streaming audio and video, etc. Technical details are covered relating to telecommunications technologies, video technologies, and computer technologies to ensure that the students can effectively manage the technical implementation of these tools. This course was developed by Robert Sapp (U.S.).

The required capstone course is:

The Distance Education Portfolio and Project (OMDE 690)

Each Master's student will work towards the development of a personal Portfolio. The goal of the portfolio is to demonstrate the student's qualifications gained in the field and to provide evidence of their competencies and skills in a variety of disciplines/roles. The goal is that this Portfolio would end up being a passport to the professional world. The Distance Education Project should come from the student's experiences within the MDE program. The 690 project is designed to be an "inclusive" activity and should reflect the student's sophistication in and knowledge of the field and asks the student create an outcome that is worthy of a professional in the field. It can take many forms, including (but not limited to) a paper, a organizational case study, a course or other types of projects. This course is taught by Eugene Rubin, Michael Beaudoin, and Ulrich Bernath.

3.1.2. Graduate Certificate Programs (as of Fall 2002)

One of the unique features of UMUC's MDE program is that students can pursue one or more graduate certificates in distance education in addition to the master's degree. These programs are ideal for students who want to gain expertise in a particular content area related to distance education but may not want to commit to the entire degree program. Students may also choose to earn certificates en route to the degree program and can apply the appropriate credits in their entirety:

Foundations of Distance Education Certificate

- OMDE 601 Foundations of Distance Education
- OMDE 606 The Management of Distance Education 1: Cost Analysis
- OMDE 608 Student Support in Distance Education and Training
- OMDE 620 Learning and Training with Multimedia

Distance Education and Technology Certificate

Required Courses

- OMDE 601 Foundations of Distance Education
- OMDE 603 Technology in Distance Education

Elective Courses (choose two)

- OMDE 620 Learning and Training with Multimedia
- OMDE 623 Web-Based Learning and Teaching and the Virtual University
- OMDE 631 Advanced Technology in Distance Education I: Synchronous Systems
- OMDE 632 Advanced Technology in Distance Education II: Asynchronous Systems

Library Services in Distance Education Certificate

Required Courses

- OMDE 601 Foundations of Distance Education
- OMDE 603 Technology in Distance Education
- OMDE 611 Issues in the Delivery of Library Services to Distance Students

Elective Courses

- Students may choose one course from among the elective courses in the Master of Distance Education program.

Teaching at a Distance Certificate

Required Courses

- OMDE 601 Foundations of Distance Education
- OMDE 603 Technology in Distance Education
- OMDE 607 Instructional Design and Course Development in Distance Education
- OMDE 623 Web-Based Learning and Teaching and the Virtual University

Training at a Distance Certificate

Required Courses

- OMDE 601 Foundations of Distance Education
- OMDE 621 Training at a Distance
- OMDE 622 The Business of Distance Education

Elective Courses

- Students may choose one course from among the elective courses in the Master of Distance Education program.

Distance Education in Developing Countries Certificate

- OMDE 601 Foundations of Distance Education
- OMDE 606 The Management of Distance Education 1: Cost Analysis
- OMDE 625 National and International Policies for Distance Education in Developing Countries
- OMDE 626 Technologies for Distance Education in Developing Countries

3.2. Preliminary Program Outcomes

3.2.1. The MDE Students

The total number of students that successfully completed the *Foundations of Distance Education* course is 408 as of Summer 2002. These students came from 12 different countries and 37 U.S. states and territories, and U.S. military posted overseas; 43% were from the state of Maryland, 57% reside outside of Maryland. There are some students in the program that take only specific courses, but they have not been included in these figures.

A total of approximately 1,500 course enrollments in 18 courses occurred between Spring 2000 and Summer 2002. The first certificates were awarded in April, 2001 and the first Master graduates completed the program in December, 2001. As of Summer 2002, there were four Master graduates and 63 Certificate recipients. An additional eight Master graduates and 28 Certificates are scheduled to be awarded in December 2002.

The students come from a very diverse set of backgrounds. Almost all of them are presently working (usually full-time). Their present employment includes higher education, corporations (often in a training capacity), government and non-profit organizations (again, often in a training capacity), and military, with a small minority from the K-12 education sector. This range corresponds very closely with the proposed target populations at which the program was originally aimed. This, however, poses some problems while at the same time it fulfills our expectations. Given that UMUC and Oldenburg have limited funds with which to market this individual program, it has proved to be difficult to focus marketing efforts in a particular area due to this wide variety of students' backgrounds. Our initial data gathered from a questionnaire administered in the OMDE 601 class indicates that students learn about the program from a number of sources. However two appear to be the most common: by searching the internet, and from a present student. We are therefore presently concentrating our efforts on these two marketing avenues.

Initially we had difficulty predicting the degree of national and international participation in the program. However, since UMUC is a Maryland state institution, it was likely that we would attract a large number of Maryland residents. We were surprised at the national character of the MDE student body, but have been rather disappointed at the low number of international (other than the U.S.) students. Many of the non-U.S. residents are, in fact, Americans living abroad. This is probably due to several factors: 1) The program is delivered exclusively in English. 2) The tuition costs of UMUC are fairly high for non-Maryland residents. 3) Many European institutions charge little or no tuition for graduate study and thus, the MDE does not appear to be economically attractive to students from those countries. 4) There has not been any significant investment in marketing the program. While there have been some initiatives to make the program known, these have been primarily personal initiatives of the program directors, rather than their institutions.

3.2.2. Program Growth and Capacity

While the program has grown at a reasonably rapid rate and the response to the program has exceeded our initial business plan estimates, so have the resources required to support that growth. Within two years both Oldenburg and UMUC have had to add additional human resources.

Table 5: The UMUC/UNI OL Model of Collaboration (as of Fall 2002)

UMUC	Academic Resources	
	UMUC	UNI OL
Central Administration (services to the MDE, selected):	Graduate School	School of Education and the Center for Distance Education
<ul style="list-style-type: none"> • Information Technology Department with WebTycho working group and helpline 24/7 • Student Services, • Registry (student records) • Library Services with copyright clearance • Department of Marketing and Communication 	<ul style="list-style-type: none"> • Program Chair • Program Director • 2 full-time faculty • 8 adjunct faculty • 1 part-time secretary • 1 part-time DE Coordinator 	<ul style="list-style-type: none"> • Academic Chair • Executive Director • 2 full-time faculty • 8 adjunct faculty • 1 part-time staff • 1 part-time "faculty support" person

Table 5 shows that each institution has added both full-time and adjunct faculty as well as management staff beyond the initial Program Chair/Executive Director. Thus, the initial increase in program capacity resulted in more required support, which in turn needs more students (more revenue) to finance that support. The program is now aiming at a steady state capacity of about 400 active course-taking students, that will result in enough revenue to support the necessary resources at each institution. An increase beyond that may result in the need for additional support resources, which will again, in turn, result in the need to recruit further students toward a new revised steady state.

The capacity of the program can be viewed from several perspectives. One can control capacity by creating a gate-keeping function in the first course. This is the existing strategy for the program. By limiting the number of students in this course (presently 75 each for the Fall and Spring terms and 50 for the Summer terms – or a total of 200 new students per year) we believe that we can systematically control the growth of the program. This will allow well organized course development and revision, recruitment of faculty, and effective use of new emerging technologies. The capacity of the Foundation course is an issue because this course is based on the original model of the Virtual Seminar and requires a more intensive use of human resources than most of the other courses. To date, it has relied on the use of world-renown experts, whose published works are the basis for many of the readings in the course. While this is a more expensive model than most of the other UMUC programs, it is the hallmark of the MDE program and is clearly an aspect of the educational experience that is recognized by both students and external distance education professionals.

Revenue is related to course capacity. The current maximum capacity of MDE courses is approximately 25-30 students per course. Presently, approximately 15 courses per term are offered. This number is a best estimate of the number and variety of courses that are necessary for the present students to be able to achieve their program completion plans in a timely manner. The *Foundations* course has a capacity of 75 per term. The goal is to fill the remaining 14 courses (assuming only one section of 30 students each). Therefore, the maximum revenue per term possible is based on $30 \times 14 = 495$ enrollments plus the 75 *Foundations* enrollments equals 570 enrollments. Present experience shows that students take approximately 1.4 courses per term. This means that approximately 410 students need to be actively taking courses each term in order to achieve 570 enrollments. Since there are presently 400+ students that have successfully completed the *Foundations*

course, this would mean that almost all of these students would need to be actively taking courses. This, in fact, is not true. A number of the students who have completed the *Foundations* course are only pursuing a Certificate, and have already completed the courses required for that goal. And others decide for various reasons, not to take a course in a particular term. Our initial data shows that the number of enrollments has been considerably below 400. We are thus offering some courses at below capacity. As more students complete the *Foundations* course, the number of active program course takers will increase, but as time progresses, the number of program completers (both certificate and degree) will rise. At some point, all other variables being equal, a steady state will be achieved. Students exiting the program (for whatever reasons) will theoretically equal the students entering the program. (A survey investigating the "stop-out" and/or "drop-out" issue in the MDE program is currently being conducted). It is our hope that the present capacity of the *Foundations* course (200 per year) will indeed eventually result in each course reaching full capacity. If there is additional demand, we would then offer additional sections of each course. Planning for further program growth would then occur when the demand for additional places in the *Foundation* course exceeds 75 per term.

3.2.3. Student Intentions

Immediately after the start of the entry *Foundations of Distance Education* course students were asked: "Do you plan to participate in the MDE program towards graduation with a Masters degree?" to express their initial intentions in a questionnaire. The results of all administered questionnaires from Spring 2000 through Fall 2002 are compiled in the following table:

Table 6: Results of all MDE Program Questionnaires From Spring 2000 Through Fall 2002

	"Yes"		"No"		"Undecided"		total
	N	%	N	%	N	%	
Spring 2000	50	89	4	7	2	4	56
Summer 2000	49	80	7	12	5	8	61
Fall 2000	35	73	6	12,5	6	12,5	48
Spring 2001	47	68	16	23	6	9	69
Summer 2001	19	73	3	12	4	15	26
Fall 2001	28	70	7	17,5	5	12,5	40
Spring 2002	12	60	4	20	4	20	20
Summer 2002	18	64	4	14	6	22	28
Fall 2002	22	65	9	26	4	12	34
Totals	280	73	60	16	42	11	382

The compiled data are available from 382 students who filled out the questionnaire.

Taking into account that 1) in Spring 2002 one section of the OMDE 601 course did not receive the questionnaire, and 2) there are withdrawals (predominantly) in the first weeks, we can estimate that these 382 students represent more than 80 % of all OMDE 601 *Foundations of Distance Education* course students.

On average 73 % of the students in OMDE 601, whom we regard as our beginners in the program, plan to graduate with the Master's degree. Only 16 % are not aiming for the Master's degree; some of them focus on certificates within the program. A fraction of the 16 % are studying the *Foundations* course without an explicit interest in any

formal qualification. 11% say that they are not yet decided whether they are aiming at the Masters degree, at a certificate, or neither.

When analyzing the course data of the first three years, we see that the portion of students who said "Yes, I plan to participate in the MDE program towards graduation with a Masters degree" declined from a very high level of around 80 % in the first year to around 70 % in the second year, and has now reached a level of around 65 %. Correspondingly, the number of students who do not aim for the Masters degree but for a certificate has increased. The number of uncertain students ("not decided, yet") oscillates in a range between 4 and 22 %.

The questionnaire also serves with data on the speed MDE students plan to achieve their goals. This shows that more than one third want to finish the MDE program within two years, another third within three years, and the rest within 4 to 7 years. MDE students start ambitiously.

The same questionnaire is presented again at the end of the OMDE 601 course in order to see if the experiences in this first course cause a change in our students' plans. The overall results show that there is little change with respect to the overall goals towards formal qualification. There is a significant change in the time frame to reach the goals. Fewer students plan to finish their program within only two years. There is a shift from two and three years to a four year plan. This longer term planning may also have some impact on the mild shift from pursuing a MDE degree to aiming for a certificate.

3.2.4. Extending Access

As one of very few graduate programs of its type, the MDE has provided unprecedented access to professionals who wish to pursue graduate-level work in this field. One of the values of the MDE program is extending access to education and training. There is no theoretical limit to the number of students that can join the program. The program, at this stage, is prepared to accept all qualified applicants.

Due to this open university access for working adults that have been out of school for a number of years some students come to the program with skills that are not quite appropriate for academic work. The program's faculty developed several tools for the MDE students. Specifically, Judy Roberts and Jane Brindley developed "*Getting Started in the MDE Program*", which advises students regarding faculty expectations as well as recommending various important organizational and study skills. Judy Roberts developed a guide to the APA style (required by the UMUC Graduate School). And UMUC already offered two critical mini-courses: one on *Academic Writing* (which is voluntary) and the other on *Library and Information Literacy Skills* (which is required of all students). In addition, there is a comprehensive guide to WebTycho (UMUC's online learning management platform), which teaches students how to use the software and navigate through their online classes. Finally, the graduate school offers some basic instruction on the issue of plagiarism and the importance of original work.

3.2.5. The International MDE Faculty

In addition to providing critical opportunities for student access the MDE program, the asynchronous program form has made the creation of an international body of faculty members and visiting experts possible. They include the following:

- Dr. Tony Bates, Director, Distance Education and Technology, Continuing Studies, University of British Columbia/Canada (Visiting Expert, OMDE 606)
- Dr. Michael Beaudoin, Professor of Education, University of New England/USA (Faculty, OMDE 601 and 690)
- Dr. Ulrich Bernath, Director, Center for Distance Education at Carl von Ossietzky University of Oldenburg/Germany (Faculty, OMDE 601 and 690)
- Dr. Kim Bonner, Director, Center for Intellectual Property, UMUC/USA (Faculty, OMDE 614)
- Dr. Jane Brindley, University of Windsor/Canada (Faculty, OMDE 624 and 608)
- Dr. Hilko Donker, Technical University of Dresden/Germany (Faculty, OMDE 620 beginning Spring 2003)
- Ilene Frank, Reference Librarian, University of South Florida/USA (Faculty, OMDE 611)
- Dr. Yolanda Gayol, Program Director, Master of Distance Education, University of Maryland University College/USA (Faculty, OMDE 623)
- Dr. Jim Gelatt, Program Director, General Management Programs, University of Maryland University College/USA (Faculty, OMDE 604 until Fall 2002)
- Dr. Inez Giles, University of Maryland University College/USA (Faculty, OMDE 602 and 607)
- Dr. Joachim Hasebrook, President, efiport AG/Germany (Faculty, OMDE 620 until Spring 2002)
- Dr. Dr. h.c. (mult.) Börje Holmberg, Former Rector, Private FernFachhochschule Darmstadt/Germany & Professor Emeritus of Education, FernUniversität/Germany & Sweden (Visiting Expert, OMDE 601)
- Thomas Hülsmann, University of Oldenburg/Germany (Faculty, OMDE 601, 606, 625 and 626)
- Dr. Greg Kearsley, Online Education Consultant/USA (Faculty, OMDE 621)
- Dr. Gila Kurtz, Pedagogical Director, Bar-@-Learn Center, Bar Ilan University/Israel (Faculty, OMDE 631)
- Dr. Michael Moore, Professor of Education and Director, American Center for the Study of Distance Education; Editor, *American Journal of Distance Education*, The Pennsylvania State University/USA (Visiting Expert, OMDE 601)
- Dr. Som Naidu, Assistant Professor, University of Melbourne, Editor *Distance Education*/Australia (Faculty, OMDE 607)
- Dr. Hilary Perraton, Director, International Research Foundation for Open and Distance Learning (IRFOL)/Cambridge/England (Visiting Expert, OMDE 625)
- Dr. Dr. h.c. (mult.) Otto Peters, Professor Emeritus of Education, Founding Rector, FernUniversität Hagen/Germany (Visiting Expert, OMDE 601)
- Judy Roberts, President, Judy Roberts & Associates/Associés, Inc/Toronto/Canada (Faculty, OMDE 603)
- Dr. Eugene Rubin, Associate Dean, Graduate Studies and Program Chair, Master of Distance Education, University of Maryland University College/USA (Faculty, OMDE 601 until Summer 2000, OMDE 602, 604 until Fall 2002, OMDE 607 until Summer 2002, OMDE 622, 690)

- Dr. Greville Rumble, Professor, Open University; Former Editor, *Open Learning/UK* (Visiting Expert, OMDE 606)
- Robert Sapp, Director for Learning Applications Development and Support (LeADS), University of Maryland University College/USA (Faculty, OMDE 632)
- Merrily Stover, Consultant and Past Assistant Dean, School of Undergraduate Studies, University of Maryland University College/USA (Faculty, OMDE 604 beginning Spring 2003)
- Christine Walti, University of Oldenburg/Germany (Faculty, OMDE 601 beginning Spring 2003)
- Olaf Zawacki, University of Oldenburg/Germany (Faculty, OMDE 620 beginning Spring 2003)

When confirming his participation as a visiting expert in OMDE 601 (*Foundations of Distance Education*), Michael Moore wrote the following to Ulrich Bernath in February of 2001: “And by the way, congratulations on putting together such a fine global faculty. It is the kind of thing I have been predicting and advocating for many, many years, but nobody is making progress in the way you appear to be ... I am happy to support you. This is the way of the future” (M. Moore, personal communication, February, 5, 2001).

The “visiting experts” concept is designed to bring distance education scholars, researchers, and practitioners into the online classroom to facilitate a course module or short-term discussion on their topic of expertise. Students read books and articles written by their visiting experts and then have the opportunity to directly interact with them online in class. This approach is important not only to ensure that the program curriculum reflects latest developments in the field, but to support students in broadening their interests, understand the importance of research, and make theory-to-practice connections.

3.2.6. Contributions to Research and Scholarship

MDE faculty have been editors of internationally renowned journals in distance education, written articles and books in their respective areas of expertise, and received awards for their work in the field.

One of the more significant outcomes of the Master of Distance Education program is the creation of a series of publications that directly supports specific courses in the program, as well as their contribution to overall scholarship in the field of distance education. Oldenburg's Arbeitsstelle Fernstudienforschung (ASF) - (Center for Research in Distance Education) - a joint unit of the Center for Distance Education and the School of Education, provides an edited series for the dissemination of research and scholarship primarily in the context of the MDE. The ASF Series (cf. <http://zefnotes.uni-oldenburg.de/ASF/ASF.nsf/Series>) currently offers the following books as readings in MDE courses:

- Vol. 2: Thomas Hülsmann, *The cost of open learning: a handbook*. This handbook is designed to help educational managers use open and distance learning. It examines the comparative costs of various educational technologies based on eleven case studies from six European countries.
- Vol. 4: Börje Holmberg, *Distance Education in Essence. An Overview of Theory and Practice in the Early Twenty-first Century*. The author carefully looks into the character and applications of distance education, and presents a revised version of

his much discussed overarching theory. Particular attention is paid to the innovative character of distance education and the role of technology in today's practice. Technology is regarded as an auxiliary means that may serve educational purposes, and not as important in itself.

- Vol. 5: Otto Peters, *Distance Education in Transition – New trends and challenges*. The author examines exciting changes and promising innovations in distance education which emerge as a result of far-reaching societal changes and spectacular advances of the information and communications technology. He widens and deepens his pedagogical approach to distance education and preserves the legacy of distance education in a new era.

In preparation are the following volumes by: Michael Beaudoin, on critical issues in distance education leadership; Greville Rumble, papers and debates on the economics and costs of distance education and e-learning; Thomas Hülsmann, on distance education in developing countries; and Jane Brindley, on learner support in distance education and training. The Learning Market Place, UMUC's bookshop, is the official distributor of the series' editions in North America.

Additional faculty research initiatives focus on distance education cost analysis (cf. Hülsmann, 2002, in this volume), student success factors (cf. the following paragraph in this chapter), asynchronous communication processes and academic discourse (cf. Peters, 2002, Hülsmann, 2002, and Beaudoin, 2002, in this volume), faculty support for online teaching (cf. Brindley, Roberts & Zawacki, 2002, in this volume).

Despite their global dispersion, MDE faculty members have had opportunities to meet with each other face-to-face for program planning, collaboration, and professional development. The first program-wide faculty meeting was held in July 2000 in Frankfurt, Germany; the second was held in March 2001 in Oldenburg, Germany, in conjunction with the 20th ICDE World Conference; a third meeting for professional development was held in January 2002 in Oldenburg, and the latest meeting was held in November 2002 in conjunction with the 8th Sloan-C Conference in Orlando.

3.2.7. Student Satisfaction

As in most other universities, there is a considerable concern for students' satisfaction with the courses. While student satisfaction does not necessarily measure the achievements of course objectives, skills, knowledge or competencies it is often used to provide a general sense of customer satisfaction; and measures of student satisfaction are also often used as an instrument of faculty evaluation.

3.2.7.1. The Course Evaluation of OMDE 601 as an Example

Since the MDE program's initial implementation in spring 2000, formal student feedback has been received for every offered course – a total of 50 course sections (as of Summer 2002). UMUC's formal evaluation process is used in all of its courses. Students rate their experiences on a five-point Likert scale from 1=strongly disagree to 5=strongly agree. The data are based on seven items on "Quality of Instruction"; 13 items on "Quality of Course Design and Content"; seven items on "Overall Satisfaction"; and three items on "Impact of Technology for Online and Web-enhanced Courses".

The "overall course rating" comprises the following 17 (out of 30) statements:

- The course was intellectually challenging.
- Course objectives were clearly stated in the syllabus.
- The grading criteria were clearly stated in the syllabus.
- Assignments were valuable in helping me master the stated course objectives.
- The required textbook(s) was/were valuable in contributing to my overall understanding of the course content.
- Other course materials (not texts) were valuable in contributing to my overall understanding of the course content.
- The course enabled me to write more effectively.
- This course helped me develop or improve my computer skills.
- This course helped me to effectively use research resources (e.g., library databases, Internet search engines) to complete course requirements.
- This course encouraged me to develop a more global or intellectual perspective.
- This course enabled me to improve my critical thinking skills.
- I would recommend this course to other students.
- I would recommend this faculty member to other students.
- The structure/design of the course contributed to my overall learning.
- This course encouraged student-to-student interaction.
- This course enhanced faculty-student interaction.

The weighted average mean of all 50 MDE course sections taught from Spring 2000 through Summer 2002 with a total of 1,123 participating students in the evaluation is 3.92.

The *Foundations of Distance Education* course received a weighted average mean of 4.17 for the overall rating of the course. The 355 students participating in the evaluation represent 87 % of all finally graded (n=408), and 75 % of all enrolled (n=471) students. The evaluation takes place about three to four weeks before the end of the 15-weeks-long course. The *Foundations* course with a range of ratings between 4.02 and 4.55 and its weighted average mean of 4.17 offers a highly satisfactory start into the program

A more detailed picture of the highly sustained level of "student satisfaction" in the *Foundations* course can be seen in the following table, which includes selected items and their evaluative results. Worth mentioning is the fact that the *Foundations* course sections are taught by different faculty and faculty teams:

Beaudoin with Moore
 Bernath with Holmberg and Peters
 Bernath & Rubin with Holmberg and Peters
 Bernath & Walti with Holmberg and Peters
 Hülsmann with Holmberg and Peters
 Hülsmann & Rubin with Holmberg and Peters
 Hülsmann & Walti with Holmberg and Peters

Most sections reached their capacity limit: The maximum number of students enrolled in one section was 36 in Summer 2000, and the minimum was 16 in one section of the Summer course in 2001.

Table 7: Selected items on "student satisfaction" in the Course Evaluation of the Foundations of Distance Education (OMDE 601) course sections from Spring 2000 through Summer 2001 on a five-point scale from 1=strongly disagree to 5=strongly agree (results = mean)

OMDE 601	Sp00 9040 N=15	Sp00 9041 N=19	Su00 9040 N=22	Su00 9041 N=15	Fa00 9040 N=26	Fa00 9041 N=29	Sp01 9040 N=24	Sp01 9041 N=25	Sp01 9042 N=24	Su01 9040 N=24	Su01 9041 N=12
The instructor was well prepared	4.80	4.37	4.55	4.53	4.12	3.97	4.39	3.96	4.21	4.54	4.83
The instructor stimulated my interest	4.80	4.37	4.50	4.40	4.12	4.14	4.00	3.80	4.21	4.42	4.50
The instructor was accessible to me	4.80	4.28	4.71	4.54	4.19	3.79	4.05	3.92	4.30	4.71	4.75
The course was intellectually challenging	4.81	4.26	4.59	4.47	4.23	4.31	4.22	4.12	4.33	4.54	4.75
Course objectives were clearly stated in the syllabus	4.67	4.26	4.57	4.53	4.19	4.48	4.46	4.64	4.29	4.75	4.67
The course encouraged me to develop a more global or intercultural perspective	4.73	4.16	4.45	4.50	4.38	4.31	4.17	3.83	4.29	4.43	4.67
The course enabled me to improve my critical thinking skills	4.44	3.89	4.43	4.40	4.04	4.21	4.25	3.84	3.92	4.42	4.42
I would recommend <u>this course</u> to other students	4.33	4.25	4.43	4.53	4.08	4.07	4.17	4.16	4.04	4.21	4.17
I would recommend <u>this faculty member</u> to other students	4.79	4.26	4.40	4.53	4.04	4.14	4.29	3.60	4.33	4.42	4.50
My personal goals were met by the course	4.73	4.16	4.43	4.53	4.04	4.10	4.17	4.00	4.03	4.27	4.33
My professional goals were met by the course	4.73	4.16	4.59	4.43	4.54	4.38	4.29	4.44	4.08	4.30	3.92
The course encouraged student-to-student interaction	4.69	4.10	4.48	4.40	4.12	4.03	4.35	4.28	4.21	4.25	4.17
Rating "overall courses"	4.55	4.17	4.34	4.35	4.06	4.05	4.24	4.10	4.08	4.31	4.25

The strength of UMUC's standardized online course evaluation (conducted in all courses) is, on the macro level, the large number of participating students and thus a kind of benchmarking for all courses and programs, which e.g. corresponds with the Sloan-Consortium's quality in online education and effective practice criteria (2002). On the micro level it allows one to isolate items or groups of items and to analyze them from course to course and from term to term.

Apart from the methodological weaknesses of a five-point-Lickert scale (cf. Saal, Downey & Lakey, 1980) the shortcomings of this evaluation tool are, however, that they do not relate to course particularities. The item "This course helped me develop or improve my computer skills", may apply to some or even most of UMUC's courses, but it does not apply to the *Foundations of Distance Education* course. The course content deals with the history, principles, theory, and institutions of distance education and thus the course objectives do not explicitly promote the development or improvement of computer skills. As a result students can not agree with this statement, and in fact, the mean of this item usually ranges around 3.0.

Other characteristics of the *Foundations of Distance Education* course could also intervene negatively with the rating:

- OMDE 601 is the course of the MDE program that is strongly recommended to be taken first and lays the foundations for the program by emphasizing history, principles, theory, and institutions of distance education. Some students expect applicable content for their current needs, skills, and/or professional goals. It is difficult to lay foundations for a longer lasting degree program and at the same fulfill these students' short term skill and technology oriented expectations.
- The *Foundations* course, like others in the MDE program, integrates visiting experts, who are usually the authors of the required readings. In addition some sections integrated senior students while others were taught by a team of faculty. These different situations and contexts cannot be evaluated appropriately. The standardized evaluation only reflects a standard situation: one faculty and her or his students.
- OMDE 601 is a paced course which allows group discussions, group work, and social learning processes. Some students who register for this course are not fully aware of the pacing and time commitment. They may expect an independent study format and encounter conflicts with the course, the instructor and themselves.
- OMDE 601 is a course that emphasizes the asynchronous seminar discussions in the virtual classroom, which is an unusual setting and approach to learning for some program beginners.

3.2.7.2. The 100-Points Questionnaire

With these weaknesses of the standardized course evaluation in mind, Oldenburg University developed an additional questionnaire in order to get more course specific feedback from the students. This questionnaire was also selectively used in OMDE 605 *New and Emerging Media in Distance Education*, OMDE 606 *Economics of Distance Education*, and OMDE 624 *Student Support in Distance Education*. In Fall 2002 the questionnaire was redesigned and used for all courses originating from the University of Oldenburg (OMDE 601, 606, 608, 620, 625, 626).

Students were asked to complete the questionnaire during the last week of each course. The questionnaire's intention was to identify those course elements that contributed most to a successful learning experience. A total of 100 points were allotted to be distributed amongst the following elements:

- The required reading
- Additional recommend reading
- Recommended URL's
- The course management of the seminar leader(s)
- Communication with the seminar leader(s)
- Communication with the visiting expert(s)
- Communication with fellow students
- Witnessing the written interactions. (Reading, but not responding)
- Participating in study group work
- The Foundations Café
- The assignments
- The learning environment WebTycho
- Other

An open question with unlimited space "Which are the main critical aspects of the course you would like to comment on" was added.

The students were asked to provide their names on the questionnaire in order to avoid multiple submittals. However, it was stated that anonymity would be observed and the names did not become part of the evaluation.

In the case of team-teaching, communication with each of the two teachers became a distinct element of the respective questionnaire. Visiting experts were also named individually. Consequently, the numbers of items in each questionnaire ranged between 12 and 15 for which the total of 100 points was to be distributed.

Table 8: Mean Results of Each Item in the 100-Points Questionnaire in the *Foundations of Distance Education* Courses From Spring 2000 Through Summer 2002.

("To which extent did the following elements contribute to your personal success in the Foundations course? You have 100 points to be distributed among the various elements. Please give each element the amount of points (a portion of the total of 100) you regard as appropriate. Please don't exceed a total of 100 points.")

	Sp 00 N=28	Su 00 N=27	Fa 00 N=18	Su 01 N=23	Su02 N=16	Overall range min/max	Standard deviation min-max
The required reading	15.43	17.04	19.11	22.57	22.56	0 - 75	7.2 - 17.6
Additional recommended reading	5.11	4.48	3.44	3.70	4.44	0 - 20	3.4 - 5.1
Recommended URL's	3.93	1.96	2.78	1.39	4.00	0 - 20	2.1 - 4.8
The management of the course process by the seminar leader(s)	8.54	10.84	8.11	12.22	8.94	0 - 50	4.5 - 10.1
Communicating with the seminar leader (s)	14.32	11.68	8.61	8.74	13.56	0 - 30	3.2 - 7.1
Communicating with visiting expert(s)	11.47	13.76	13.78	18.92	15.44	0 - 30	3.2 - 7.5
Communicating with fellow students	6.54	4.80	7.56	7.30	5.06	0 - 65	3.9 - 13.0
Witnessing the written interactions (Reading but not responding)	7.57	9.12	7.06	5.30	6.00	0 - 35	3.6 - 7.0
Participating in study group work	5.43	4.64	7.28	2.52	2.13	0 - 20	2.3 - 5.5
The Foundations Café	2.57	1.64	3.00	1.00	1.44	0 - 15	1.9 - 3.3
The assignments	14.32	12.52	13.61	13.35	11.56	0 - 40	8.5 - 10.4
The learning environment WebTycho	3.89	7.32	5.39	2.87	4.75	0 - 35	3.7 - 9.1
Other	0.89	0.20	0.28	0.13	0.13	0 - 7	0.5 - 2.2
Total	100.0	100.0	100.0	100.0	100.0		
Comparison with rating "overall course" (see Table 7)	4.34	4.34	4.05	4.29	4.03		

As previously mentioned, UMUC's official course evaluation of the *Foundations of Distance Education* course resulted in overall positive ratings. The vast majority of the participating students encountered a successful learning experience in this MDE beginners course. In the so-called 100-points questionnaire these students were asked to weigh the course elements that most contributed to their success.

We see that the required readings received the highest weight with an average of 15 to 23 points out of 100, followed by communication with the visiting experts (11 – 19 points), the assignment tasks (12 – 14 points), and communication with the seminar leader(s) (9 – 14 points). Elements, which can be considered to be the main pedagogical resources for classroom-based graduate courses, appear to be similarly important constituents in the online learning environment.

The required reading is a predetermined content element, whereas recommended readings and URL's are additions to this content base, posted by seminar leader(s), visiting experts, and/or students while the course progresses.

Readings, communication processes, and assignment tasks (two or three essays and a research project in OMDE 601) are interwoven in a structured and paced model of an online course (cf. the generic syllabus at <http://info.umuc.edu/mde/syllabi/syll601.html>).

The seminar leader(s) introduced the readings and discussions and also summarized and wrapped up the outcomes of each module. This "management of the course process by the seminar leaders" is an important element that defines and prescribes content matters to be dealt with in the course. It should be noted that "management" contributions by the seminar leader(s) - for example giving instructions on how to proceed through the course - is distinct from postings by the seminar leader(s). These postings follow the communication processes as a result of the participants' interpretations and content construction and differ from course to course. In the *Foundations* course the "management" contributions by seminar leader(s) outweigh the participants' contributions to the communication processes by a factor of around two. (e.g., 30,000 words of "management" contributions compare with about 15,000 words of discussion in a direct teacher-student interaction throughout the course in summer 2002). The "management" contributions can be viewed as primarily one-way communication or as instruction, whereby the postings are two-way communication or "construction" that occurs in response to students' input.

The students of all above mentioned *Foundations* courses stated that the online course-specific element "management of the course process by the seminar leader(s)" (with an average of 8 – 12 points out of 100) was another important resource that contributed to their successful learning experience. One must recognize that students may not differentiate between the seminar leaders' instruction as part of the course management item and the communication item and therefore it makes sense to compile both items. Now, the seminar leaders' contributions receive an average of 17 - 23 points out of a total of 100 points, which compares with 15 - 23 points for required readings, 11 – 19 points for communication with the visiting experts, and 12 – 14 points for the assignment tasks. The size of this compiled seminar leaders' contribution could be inflated by just adding the two together.

An online course that makes every effort for intense interaction between teacher and student and is particularly supported by the integration of visiting experts, creates a situation in which "witnessing the written interaction" becomes another important element of the online learning experience (5 – 9 points in average). More on the notion of "witnessing" cf. Fritsch, 1997, and Beaudoin in this volume.

In such a communication-rich online learning environment "communicating with fellow students" receives relatively low 4 – 7 points in average as an element that contributes to the successful learning experience in this *Foundations* course.

"The learning environment WebTycho" is a unique feature in the online environment provided to students. It's rating ranges between 3 - 7 points on average. One should note that almost all students share a first time experience with this learning management system. It serves as a tool for the *Foundations* course and thus makes it an element of relatively minor importance for the success of the students' learning experience.

The *Foundations* course offers two study group sessions, which are designed to support the social dimension of the learning process. They are voluntary exercises and in most cases not graded. Under these circumstances "participating in study group work" resulted in a range between 2 and 7 points on average out of 100 points.

The above discussed findings show similarities over a series of courses. They allow for some generalizations regarding the importance with which students weigh the contributing elements to their successful learning experiences.

As already mentioned these courses were taught by different faculty teams, which taught their courses based on common syllabus, hence a similar content and approach. Despite changing teams the mean results for each evaluated element were similar. Remaining differences could be related to changing teams or be a result of course dynamics caused by spontaneous communication processes between the students and their teachers and the students with each other.

That is a general impression. If we look into each individual's preferences and ratings not many students are similar in their judgements. The range of ratings, as already shown in Table 8, is extreme. These results are underpinned by the extremely high standard deviations.

The following Table 9 shows the raw data of 28 students in one course who rated 15 elements (E1 – E15) and illustrates the differences between the students and their ratings of the various elements. The heterogeneity of the micro data can be found in all courses and in all cases where the 100-points questionnaire was administered.

Table 9: Row Data of 28 Students Who Rated 15 Elements (E1 – E15) in the 100-Points Questionnaire

E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15
20	10	10	10	5	5	5	5	0	0	10	0	20	0	0
20	5	3	10	5	5	5	5	5	5	10	5	15	2	0
25	5	1	5	5	5	5	5	0	25	4	0	15	0	0
20	2	2	10	5	5	15	15	5	5	4	2	5	5	0
20	2	2	20	5	5	10	10	5	5	2	2	6	6	0
18	1	5	1	1	1	1	1	13	10	13	1	18	16	0
10	6	7	12	7	6	8	8	6	7	2	4	10	7	0
6	6	6	3	4	4	4	4	6	4	20	1	30	1	1
10	5	5	20	5	5	10	10	5	5	0	0	15	5	0
10	5	0	10	10	10	10	10	5	5	10	5	5	5	0
25	7	0	5	2	2	5	5	1	6	0	15	10	10	7
15	5	5	5	15	5	5	5	10	10	10	0	10	0	0
10	10	10	10	5	5	5	5	10	10	5	0	10	5	0
10	0	0	0	5	5	10	10	5	5	5	0	40	5	0
40	10	5	5	0	0	5	5	5	10	0	0	15	0	0
20	5	5	5	5	5	5	5	15	10	0	0	15	5	0
13	3	3	7	5	5	7	7	7	7	10	2	14	10	0
15	0	0	20	0	0	3	3	3	6	3	3	35	3	6
20	5	5	10	8	12	2	2	4	4	3	5	20	0	0
10	6	3	10	10	10	10	10	6	7	2	3	10	3	0
10	0	5	15	5	5	10	10	15	5	5	5	10	0	0
10	4	6	6	6	7	6	6	5	6	10	7	10	5	6
10	2	5	15	8	8	8	8	8	10	4	2	8	4	0
10	10	2	3	10	10	10	10	10	10	10	3	2	0	0
20	0	0	0	10	10	10	10	10	5	3	0	20	2	0
15	15	1	4	10	10	10	10	2	15	0	2	3	3	0
10	7	6	8	10	5	7	8	9	10	0	5	10	5	0
10	7	8	10	0	0	9	9	8	5	7	0	20	2	5

Table 9 shows that each individual student obviously constructs his or her own learning process and despite the extreme differences most students achieve a successful learning experience in this course. The heterogeneous structure of these results may reflect the different personalities of our students as well as their different learning styles. However, it clearly demonstrates their different preferences for learning resources, which support their seemingly different learning processes. These results compare well with Peters' observations in the Virtual Seminar mentioned earlier (cf. p. 3 in this volume). An interesting question here is: Are these different approaches to a successful learning experience a specific result of the online learning situation in our course(s)?

The findings suggest that highly individualized learning processes result in overall student satisfaction in the *Foundations of Distance Education* course. Similar results were found in other courses mentioned above, in which the 100-points questionnaires were administered.

Finally, the feedback received from the 100-points questionnaire and the results from the standardized course evaluation were used for course development and revision.

3.2.7.3. Students Comments

Students enrolled in the first Spring 2000 sections of OMDE 601 provided permission to use the following quotes about their experiences in the program. (Comments systematically collected from all OMDE 601 courses are remarkably similar to these.):

On differences in the online environment

“ ... we ... learners are now taking an active part in our learning, communicating with our tutors in all areas, readings, assignments, examinations, etc. We are learning more because of our involvement. We are freer to ask questions and to have more open communication than ever before. No longer is the teacher standing in front of a packed hall lecturing for an hour and then thinking his job is done.”

“ ... and I can say without hesitation that I have had more productive and thought-provoking dialogue in this course than in any “classroom” course I’ve had, and that includes many small seminars I’ve attended that have been designed to promote roundtable discussions among participants. In this course, the structure established by the creation of our conference areas, discussion topic guidelines put forth by our faculty, and general timeframes given in which to discuss particular issues lends (in my perception as a student) a lot to our ultimate goal of dialogue. The autonomy comes in our ability to sign on at midnight or a Saturday afternoon and be able to contribute to our dialogue on our own terms within the given structure ... ”.

“ ... the ability to read everyone’s ideas and sit back and think about a response, or comment, or joke, allows one to answer (either right away or later), when in a traditional classroom one might not respond at all. This method of communication gives a certain “democracy,” if I may say, to the distance education process.”

On the application of knowledge

“While possessing knowledge is good, it is the application of the knowledge that is key. As an MDE student and corporate manager, it seems to me, from a pedagogic standpoint and especially from a marketing standpoint, this may be a concept with exceptional merit.”

“Professor Peters: This module has done many things for me. It has opened my eyes to new ideas and concepts and reinforced others. For me, one of the biggest “tests” of whether I have successfully internalized learning material is whether the issues and subject matter come to light for me outside the classroom. I had this experience during this module in witnessing and analyzing DE activities at the university where I work, and this has fueled my excitement about and commitment to this field. Your text is a resource that I know I will return to again and again in my career, and the examples that you, Gene, Uli and Börje have provided of teachers who guide and facilitate in this electronic environment have been wonderful illustrations of theory in practice ...”

On learning from other students

“ ... during module one, I found myself almost obsessively checking the conference area for fear of missing something. This time around, while I may have contributed less to the conferences, I found myself making more use of the contributions of my classmates in my own rereading of our material. Quite a few times the question of “Where did Don or Beth or Alan, etc., come up with that information?” has led me to a second read-through of portions of our text. This has enabled me to capture bits of information I missed in my own initial reading, and has made a wonderful example of a student learning through another student’s observations. I cannot recall a course where I was able to make such extensive use of my classmates’ knowledge and insights ... ”

On faculty

“ ... we have very close contact with our professors and they guide us through the modules in such a way that we can learn as much as possible. The tutor model is evident in the fact that Uli and Gene respect us and have an understanding that we are working adults with families who are struggling at times to find the time to complete the coursework ... ”

On working in groups

“ ... groups are such a great way to learn. It seems like it is an excellent avenue to generate ideas and express opinions, while considering/respecting the different perspectives that emerge.”

“...the small group exercise definitely made it easier for me to feel at home in the WebTycho world and to get to know a subset of my colleagues. It seemed to be the right size to both contribute and take in others’ opinions. I agree with ____ (and we were in the same study group, so maybe it’s a reflection of that group’s makeup) that I really liked the variance of experiences, knowledge about distance education, and perspectives that occurred in our group — as well as the willingness to discuss other perspectives ...”

Other avenues for student feedback included planned face-to-face meetings in Oldenburg/Germany (March 2001, January 2002), Adelphi, Maryland/USA (November 2000, May 2002), and Orlando, Florida/USA (November 2002).

3.2.8. Learning Outcomes

Since the MDE program has, to date, only had very few degree graduates, there are currently no long-term or longitudinal measures available for examining program effectiveness or student learning outcomes. The MDE capstone course (OMDE 690) is one measure designed to help assess what students have learned throughout the graduate

program. This course provides an integrative learning experience in which students create a personal distance education portfolio and complete a major distance education project. Here the students are asked to create an electronic portfolio for two main purposes. First, the portfolio is a means for the student to move into the field of distance education as a professional. It is designed to allow the student to showcase his/her background, products, skills and knowledge in order to seek new employment, advance in their present organization, or simply to establish professional credentials. The second purpose of the portfolio is for the faculty to assess the student's progress throughout his/her tenure in the MDE program. Students are asked to save all course assignments and projects and add any additional works or projects they created. They are asked to create a portfolio from this material including the more traditional resume data as well as reflective writings on their achievements. The two main purposes of the portfolio may result in two different products, but this may well be a positive outcome.

More immediate measures that can be considered in this area are student assignments and assessments in the individual courses. MDE students are challenged to demonstrate their mastery of course concepts and material through research papers, individual and group projects, and other types of written assignments, including the following:

- Researching and providing “expert consultant” recommendations for institutions moving into online training and development
- Case study analyses, including institutions and organizations such as Athabasca University, The Open University, NextEd, Unext, and Universitas 21
- Student-created case studies with an analysis of contexts, factors, resources, learners, challenges, and opportunities
- Analyses of best practices in distance education
- Creation of a context-specific distance education system with an analysis of each component and graphical representation of how the various components interact with each other
- Application of decision-making criteria to choose appropriate technologies for particular learning goals/environments
- “Memos to the President” related to a wide range of leadership and management issues in distance education
- Examination of critical issues faced by distance education managers in different functional areas (student services, course/instructional design, technology managers, etc.)

3.2.9. Related Outreach Activities

Building on the model of the MDE, UMUC and Oldenburg have initiated several related outreach efforts in the field of distance education, including the following:

- From April through June 2001, Oldenburg’s Center for Distance Education in collaboration with UMUC provided a seven-week online course titled “Essentials of Online Learning” for Nokia (Finland) HRD staff using WebTycho (cf. <http://www.uni-oldenburg.de/zef/training/nokia.htm>). A second revised course took place from October through November 2001. Evaluation results have been presented by Naidu and Bernath (2002).

- The Global Development Learning Network of the World Bank collaborates with Oldenburg's Center for Distance Education offered a virtual seminar for professional development on "Distance Education in Developing Countries" in Fall 2002. The seminar for professional development is closely linked to the content of OMDE 625 and OMDE 626 (cf. <http://www.uni-oldenburg.de/zef/english/DEiDC2.htm>).

3.2.10. Cost Effectiveness

There are several indicators that suggest that the MDE is a cost-effective approach to program delivery for both institutions. When the MDE program was first introduced in Spring 2000, UMUC already had a complete infrastructure in place that was designed to serve students and faculty at a distance and to support program development and delivery. This included a complete array of online services ranging from admissions, financial aid, and registration, to student advising, an online bookstore, and library services. With its mission of educating adult part-time students, UMUC was well-equipped to meet the needs of new students in the MDE program.

While both UMUC and Oldenburg had independently examined the possibilities of delivering courses, a certificate, or a degree program in distance education, they both realized that there were great benefits to a collaborative approach. They sought a model that would allow both institutions to capitalize on their particular areas of strength – UMUC's course platform system and experience in distance education, as well as Oldenburg's specialization in international distance education. Thus, the MDE represents a program that neither institution would have been able to achieve individually without substantial additions to cost. In addition, UMUC and Oldenburg have paid special attention to issues of cost-effectiveness. Tana Bishop of UMUC and Thomas Hülsmann of Oldenburg have been conducting a cost analysis study of the MDE program. Furthermore, a case study on the Oldenburg portion of the MDE program on the costs of online learning has been conducted by Hülsmann (cf. Hülsmann in this volume).

4. Conclusion

If one were to look at this program as one of many programs being offered by UMUC's Graduate School it would be a modest sized program with modest revenues for both institutions. But the program represents much more than that. It is also a "positioning" program, which demonstrates both institutions' leading role in the training of distance educators and clearly places each institution in the company of other well-known distance education institutions. This outcome is, of course, an important one, generating goodwill and reputation that is important for any educational institution.

Both UMUC and Oldenburg have benefited substantially from the implementation of the Master of Distance Education. MDE students and faculty are making important contributions to the field by positioning the pedagogical, technological, societal, and management-oriented aspects of distance education in a broader international context.

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Appendix

Excerpts From the MHEC Proposal

Rationale and Need for the Program

"The mission of University of Maryland University College (UMUC) is to provide high-quality educational opportunities to adult, part-time students in Maryland and throughout the world. Because of its target population and the emphasis on workforce preparation, UMUC seeks to provide educational opportunities at times and places convenient for its students. To that end UMUC makes use of several distance education (DE) media in order to give students the greatest range of choice and convenience. UMUC places a special emphasis on the use of the World Wide Web to deliver courses and degree programs to students who would not otherwise be able to pursue post-secondary education because of geographic or time constraints.

The proposed Master of Distance Education (MDE) degree program fits UMUC's mission well. It is designed specifically for working adults; for this reason, the degree has an applied orientation combining current theory and relevant research with real world experiences of students.

Adding an internationally recognized degree program to UMUC's academic inventory will strengthen UMUC's reputation and increase its revenue. In so doing, UMUC will be better able to maintain its cutting edge in distance education and pedagogy. These capabilities further UMUC's and the University System of Maryland's goals to achieve and sustain national and international eminence, and to become a model for American higher education and a source of pride for all Marylanders..." (p. 1)

"...UMUC is already recognized as an international leader in the areas of adult education. The proposed degree clearly adds to that reputation. It is also the goal of UMUC to be recognized as a national and international center of excellence in the discipline of distance education. This not only furthers UMUC's ability to attract students interested in earning their degrees via distance education, it also showcases UMUC as one of the premier teaching and research institutions in the area of distance education and training. It is UMUC's intent to become the institution of choice for training IN distance education, as well as workforce training BY distance education..." (p. 2)

Analysis of the Market for the MDE Program

"...a recent report by the International Data Corporation (IDC) market research firm entitled ONLINE DISTANCE LEARNING IN HIGHER EDUCATION, 1998-2002, says that the number of college students enrolled in distance learning courses is growing by 33 percent per year. The number of students in distance learning classes is projected to reach 2.3 million by 2002. The proportion of two year colleges offering distance learning classes is projected to reach 85% (up from the current 58%), and the proportion of four-year colleges offering such classes is projected to reach 84% (up from 62%).

A logical analysis of the rapid growth in distance education supplies evidence of a large potential demand for training of professionals in the field. A large majority of 2 and 4 year institutions in the United States presently have either an office or an individual who is in charge of distance education. Many of them have multiple offices and/or multiple employees..." (p. 2)

"Many, if not most, DE positions require individuals who either have extensive experience or specific training in the field of distance education. Because most of the explosive growth in distance education has been recent, there are only a limited number of experienced personnel presently working in the field. There are only a few degree programs in the field and these have produced a limited number of graduates, so there are only a small number of individuals who have been specifically trained in DE as compared to the total number of present and future (predicted) positions..." (p. 3)

"Further evidence of demand for trained personnel in the field of DE is the explosive growth in private and non-profit organizations that are marketing distance education products and services in the education/training field. Such companies as RealEducation (eCollege), Collegis and Sylvan Learning Systems are marketing turnkey distance education systems to companies, universities and colleges. Organizations such as WebCT, Blackboard, and Lotus/IBM are marketing software and related technologies for the delivery of Web-based distance education. Other organizations such as V-Tel and PictureTel are releasing new versions of their video conferencing products, and many of the telecommunication companies are directly marketing distance learning services. Hundreds of companies have sprung up that have developed training and

education courses and they are marketing these products directly to businesses, educational institutions and government. Most of these organizations either did not exist five years ago or did not offer these services and products. Many of them did not exist two years ago..." (p. 4) "The direct implication of this is that there is an increasing number of jobs that will require the skills and knowledge that is imbedded in the proposed degree program's curriculum. Thus there is already a pool of potential students working in the private sector that are appropriate candidates for the proposed program and there is some assurance of a future demand for the graduates."

"The evidence for student interest in the proposed program is based on a rational analysis of the growth in the field as well as a necessarily somewhat anecdotal analysis. This is because this type of program tends to be somewhat on the leading edge of the demand, yet demand is developing at a very rapid rate. The results of this analysis suggest that there is a strong need for training in this area accompanied by only a small number of institutions that are offering the credentials."

Other MDEs or Related Programs

"There are no similar Master's programs being offered in the State of Maryland. However, it is useful to examine other programs that exist outside of the State of Maryland because this provides further insight into the issues of demand.

Presently, there are only a limited number of programs that are offering a similar degree. For example, similar degrees are offered at the following institutions: Florida State University, George Washington University, Nova Southeastern University, Athabasca University (Canada), The British Open University, The University of London, and The University of Southern Queensland (Australia). A number of these degrees have been offered for several years and their enrollments are healthy, if not exceeding their original estimates. Their program sizes are primarily limited by their number of permanent faculty. UMUC is planning to avoid these limitations by implementing its tried and true system of adjunct faculty staffing. It is interesting to note that several of the above institutions are beginning to implement the use of adjunct faculty in their Distance Education master's programs.

Until recently, there have not been many institutions that have had extensive experience delivering distance education (and thus have a reasonable number of qualified practitioners to teach the subject). Internationally, institutions that have been leaders in distance delivery have initiated academic training programs (for example, the well respected British Open University, Athabasca University, and University of Southern Queensland). UMUC intends to follow their model of teaching what they both know (their various disciplinary expertise) and what they do (create, manage and deliver distance education programs)." (p. 5)

Planned Goals of the MDE Program

"The Master of Distance Education covers a broad range of topics and themes needed by distance education and training professionals in a global environment. Graduates of the program will be able to develop and communicate a mission and vision for the implementation of distance education within an organization; function effectively as leader, manager and team member within a distance education or training

organization; develop strategic goals and business plans for distance education within an organization; analyze and recommend an organizational distance education technology plan, and to manage the implementation of that technology in distance delivery; design, and implement and assess the necessary support services for a distance education program. They will develop competencies in organizational and management processes; leadership and change management; information technology; business development, strategic action planning, problem solving, ethics and social responsibility. The degree is very definitely an applied one, aimed at developing the managers of distance education and training organizations of the future.

In a ever rapidly expanding field, the graduates of the MDE will be prepared to engage in the planning, budgeting, development, delivery, and support of distance education and distance training programs. Students will:

- gain a perspective on the history and theory of the field of distance education;
- learn to access and critique the relevant literature in the field;
- understand the organization systems and structures that support DE;
- understand the emerging business environment of DE, including issues relating to cost, marketing and competition;
- develop skills in the selection and application of DE technology and media;
- learn about and practice the application of asynchronous and synchronous technologies;
- understand and apply a variety of DE pedagogies within the materials and course development process;
- learn about issues of leadership and management within a distance education or training organization;
- learn about the globalization of DE, and how the international and cross-cultural aspects of DE are critical to operating in world markets;
- learn about the design and construction of the Virtual University, and the provision of a wide variety of student services and support, including the distance delivery of the virtual library, student advising and counseling services, course and program registration and financial services, and job placement services; and
- learn about the design, development, and operation of the corporate virtual university and related training environments, including course development, database development, student registration and tracking, etc. and;
- analyze issues related to faculty training, faculty compensation, copyright ownership, and quality assurance." (p. 6)

"...students who successfully complete the Master's degree will be able to:

- Understand and critique the broader policy and social issues that arise from using distance education and technology-based learning.
- Plan and manage distance education and training courses, programs, departments and organizations.
- Design, develop and deliver high quality distance education and training in ways that reflect a variety of different approaches to teaching and learning.

- *Select and use technologies on the basis of their differing educational and operational characteristics.*
- *Evaluate and conduct research on distance education and training issues, and disseminate the results.*
- *Collaborate and network with other distance education professionals around the world.*
- *Cost and budget distance education development and delivery systems.*
- *Understand, from a learner's perspective, what it means to engage in distance and technology-mediated learning." (p. 11 - 12).*