
STUDENT SATISFACTION IN THE ONLINE MASTER OF DISTANCE EDUCATION (MDE) - PRELIMINARY RESULTS

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1. Introduction

The Master of Distance Education program (MDE) was launched in January 2000 by the degree granting University of Maryland University College (UMUC) in partnership with the Center for Distance Education at Carl von Ossietzky University of Oldenburg, which contributes two of the six integrated certificate programs. The Master's and certificate degree programs are completely accessible online.

The mission of the MDE 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" (Bernath & Rubin 2003, p. 20).

The online MDE has proven its competitiveness in the international educational market. The co-operation of the partnering institutions is managed efficiently: the program is self-supporting and fully established in an online teaching and learning environment. It attracts distinguished experts from four continents as adjunct faculty and visiting experts. Standardized course evaluations and additional surveys are administered to analyze the MDE students' learning experiences. Preliminary results from surveys on MDE students' satisfaction with the program, its courses and the faculty can be presented.

2. The MDE Students

More than 500 students from 12 different countries joined the MDE community within its first three years. 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 Spring 2003 there are 20 Master graduates and 117 Certificate recipients.

The students come from a very diverse set of backgrounds and 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.

Data gathered from a questionnaire indicate 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.

3. Student Intentions

Immediately after the start of the entry *Foundations of Distance Education* course (OMDE 601) students are asked in a questionnaire: "*Do you plan to participate in the MDE program towards graduation with a Masters degree?*" in order to express their initial intentions. The results of all

questionnaires show that 73 % of the beginners in the MDE program aim at a Master's degree, 16 % at a certificate, and 11 % are undecided.

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

4. Student Satisfaction

MDE students' satisfaction is seriously taken into regard. Students are regularly asked to evaluate the courses, the faculty, the appropriateness of technologies, and the support services provided by the institution (Bernath and Rubin 2003, p. 32ff.). Results in terms of student satisfaction help to analyze the achievement of course objectives, skills, knowledge or competencies. Such results can also be seen as an expression of a general sense of customer satisfaction, which is key in continuing learning (cf. Sloan-C 2002). The MDE program directors make also use of the measures as an instrument for continuous program improvement.

4.1. The Course Evaluation of the entry OMDE 601 course

Since the MDE program's initial implementation in Spring 2000 formal student feedback has been received for every course offered – 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 Lickert scale from 1=strongly disagree to 5=strongly agree. The evaluation takes place before the end of the courses. The data are based on:

- 7 items on "Quality of Instruction" (the instructor was well prepared; the instructor stimulated my interest; the instructor was accessible to me...);
- 13 items on "Quality of Course Design and Content" (the course was intellectually challenging; course objectives were clearly stated in the syllabus; the course encouraged me to develop a more global or intercultural perspective; the course enabled me to improve my critical thinking skills; the course encouraged student-to-student interaction...);
- 7 items on "Overall Satisfaction" (I would recommend this course to other students; I would recommend this faculty member to other students; my personal goals were met by the course; my professional goals were met by the course...); and
- 3 items on "Impact of Technology for Online and Web-enhanced Courses".

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 from 353 participating students in 16 sections.

Worth mentioning is the fact that the *Foundations* course sections are taught by different faculty teams composed by a lead faculty (Beaudoin, Bernath, Hülsmann) and visiting experts (Holmberg, Moore, Peters). The maximum number of students enrolled in one section was 36 and the minimum was 16. Most sections reached their capacity limit of 28.

The strength of UMUC's standardized online course evaluation is the large number of participating students and thus a kind of benchmarking for all courses and programs. The shortcomings of this evaluation tool are however, that they do not relate to course

particularities, such as:

- a) 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. This course sets the tone and standard for the program. 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 time fulfill students' short term skill or explicit professional expectations.
- b) 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 integrate 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.
- c) 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 course structure and the time commitment. They may expect an independent study format and encounter conflicts with the course, the instructor and themselves.
- d) 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.

Despite such a range of possibilities that could have negative influences on the rating the *Foundations* course reaches a high range of ratings between 4.02 and 4.55 and a weighted average mean of 4.17 on the five-point Lickert scale.

These results can be related to a comprehensive study by Carswell & Fleming (2003) of all of UMUC's course evaluation data with over 19,000 individual data records and of which the MDE students' data are only a small part gathered from Spring 2000 through Spring 2001. According to this study the students' level of satisfaction with the course and the instructor seems to be predictable by the following "dependent variables":

- The faculty member appeared well organized
- The faculty member stimulated my interest in the subject
- The faculty member provided support and guidance to students
- The workload was reasonable for the type of course and the number of credits
- The syllabus provided a useful framework for planning my study
- The information I received from this course was relevant to my career or personal goals

The study resulted in a remarkable general observation: "...faculty members have to work especially hard in online courses to enhance their presence in the eyes of their students".

4.2. The 100-Points Questionnaire

In order to get more course specific feedback from the students a second questionnaire in addition to the standardized course evaluation was administered. The questionnaire's intention was to identify those course elements that contributed most to the students' learning experience. A total of 100 points were allotted to be distributed among 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.

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. Students were asked to complete the questionnaire during the last week of each course.

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 beginner's course. In the so-called 100-points questionnaire the same students were asked to weigh the course elements that most contributed to their success.

Table 2: Mean results of each item in the 100-points questionnaire in the Foundations of Distance Education courses from selected courses 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"	4.34	4.34	4.05	4.29	4.03		

We can now see in Table 2 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 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, which is a spontaneous element closely related to the interaction process taking place in each individual section and course. It therefore makes sense to compile both items. Then, the seminar leaders' contributions would receive an average of 17 - 23 points out of a total of 100 points.

An online course that makes every effort to intensify interaction between teacher and students and is particularly supported by the integration of visiting experts creates a situation in which "witnessing the written interaction" (Fritsch 1997) becomes another important element of the online learning experience (5 – 9 points in average).

The 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 but based on common syllabus and with similar content and approaches. Despite changing teams the mean results for each evaluated element were similar. 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.

Table 3: Raw 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

If we now look into each individual's preferences and ratings not many students are similar in their judgments. The range of ratings, as already shown in the Table 2, is extreme. These results are underpinned by the extremely high standard deviations. Table 3 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.

Obviously each individual student 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 the different preferences for learning resources, which support their seemingly different learning processes.

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, in which the 100-points questionnaires were also administered.

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