



An Attitudes of Professors Toward Computer Mediated Communication for Master Students Mentoring

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In Lithuania, extensive usage of IT for communication is a common phenomenon in higher education for more than a decade. An increasing part of student's and teacher's joint work is being transferred to a virtual space: virtual seminars take place, student's are consulted and the feedback is given through e-mail and Moodle. Expanding studies into electronic space, it is important to maintain an adequate quality of higher education and to ensure an effective management of the study process.

The computer mediated communication, e-tutoring and e-mentoring in the Higher education are widely discussed in the scientific publications. However, the questions about tutor's guidance for a student's scientific work are analyzed rarely. The professor's role as a mentor or tutor is not considered in all its aspects.

Assuming the relevance of the topic and the gaps of exploration, the aim of the article is set: to identify the positive and negative aspects of computer mediated communication (CMC) between the mentor and the mentee in the respect of the university teacher's work efficiency and student's knowledge development.

There were applied the following methods of the research: a meta-analysis, survey of professors' opinion, descriptive statistics. Hypothesis tested using SPSS.

1. Actualities of e-mentoring, e-tutoring and CMC

In the modern discourse, e-mentoring is presented as a developing concept the characteristics of which clearly differ from the face-to-face (FtF) mentoring. The differences between definitions occur due to the contact nature and differences between the FtF and e-mentoring goals and abilities [11], [7].

Mentor's work with the mentee pursue informational, instrumental and psychological functions. Speaking of higher education, it is hoped that the teacher would help the student to broaden his academical knowledge and skills formed in the education process as well as to develop critical thinking, strengthening self-esteem and confidence [11], [8].

CMC allows improving the quality of collaboration between mentor and mentee. But the real contribution to education quality of this ability is a discussable question. Some scientific researches show, that CMC motivates the student to take more responsibility for the studying speed and achievements as well as to be more active creator of his knowledge and skills [1]. However, other researchers notice, that CMC technology creates the conditions for the student to „hide“, become inaccessible, delay time [4], [9].

Ensher et al. (2003) have presented a classification of e-mentoring based on the volume of CMC extent: a) CMC-only, b) CMC-primary, and c) CMC-supplemental. However, the technological communication is reduced by the lack of non-verbal characteristics [3].

The efficiency of a mentorship is influenced by the intensity and quality of interpersonal communication. There is an observable positive link between the mentor's time given for communication and the student's progress and the satisfaction in educator's help [10]. Nevertheless, CMC has more pronounced problems such as excess and superficiality of information [4]. One of the objective elements that limit the contact time and quality is a large number of mentees for a one mentor [5]. The administration's aspiration to increase the cost-effectiveness of higher school by attributing bigger number of students for one mentor creates a potential conflict between the quality of education and the mentor's abilities to provide high-quality tutorials [2]. Ensuring the mentor's ability to dedicate enough time for every student is vitally important because the regularity of contacts and fast answer to student's questions directly influences the student's motivation and efforts to actively reach for studying results [4], [9].

The virtual communication is more stressful than the direct interaction. Due to this reason, taking care of teacher's work conditions means taking care of the student and the quality of education in general [6].

Taking into consideration the potential problems of the e-mentoring is required to improve the facilities of teachers' work.

2. Professors' attitudes to CMC: research results

Considering the challenges of e-mentoring (e-tutoring) and virtual communication discussed in scientific publications, a research has been made with the following goal: to find out how the aspects listed above reveal in the teachers' work according to professors of Mykolas Romeris university. Two hypotheses formed on the basis of theoretical analysis were being verified:

H1: The evaluation of CMC is associated to the number of students tutored by professor.

H2: The professors' stress is directly connected to the amount of students tutored and to the activity of CMC using.

Terms of mentoring and tutoring are used synonymously in this paper.



The research was made in Mykolas Romeris University which is the second biggest university in Lithuania. The university improves home management system to ensure the quality of education. In the year 2011 important documents that regulate education process were signed. The order of distance learning implementation is amongst them. The whole education process is aimed to be available remotely.

The representatives of three faculties took part in the research. Sampling of respondents was formed according to 3 criterions: i) person holding position of professor or associate professor, ii) tutoring *more than one* master student a year, iii) not holding office of administration at MRU. In accordance to following criterions, the questionnaire was distributed to 67 professors. 46% of the respondents were women and 54% - men.

According to the data of the survey, the respondents are tutoring 476 master students. It means that one questioned professor is tutoring an average of 14 students a year.

Analysis of the research results showed that professors evaluate the CMC positively (92%). Also the respondents (89 %) state that the specifics of the professors' work does not allow to tie up to a single work place, so CMC is a „panacea“ ensuring a qualitative work of the tutor and master student. 93 % of the respondents mark that CMC is very useful for master students themselves because it allows them to meet their personal needs easier.

73% of the professors state that decreased master students' responsibility for their work results along with bigger distraction occurs more often when communicating virtually. Students ask the tutor to correct the text, edit the statements of master thesis, and ask questions the answers of which they could find in master thesis guidelines.

82% of the respondents noticed that virtual consultations require more time than meetings. Therefore professors manage their work time by giving less informative or less urgent feedback. Especially because of the time needed for written consultation, mentors wish that the help of CMC would be used for giving minimal feedback and essential information (34%) and for arranging the meeting on the time comfortable for both sides (27%). The idea to completely transfer the work of guiding master students to virtual space did not gain an acceptance.

In order to maintain reasoned balance between the quality of mentoring and teacher's work load, professors should not be guiding more than 10 students preparing their master thesis in a period of one year. This opinion was given by 53% of the respondents. Nevertheless, 43% of the professors narrowed the limits even more and they state that it is not possible to qualitatively work with more than 5 mentees at the same period. Mentors who are mentoring more than 10 master students marked a lower number of potential mentees than those who guide fewer students (correlation of the data is meaningful because of Spearman correlation coefficient $p\text{-level} = 0.026 < \alpha = 0.05$).

The fact that the work with students in the virtual space causes the techno-stress is shown by the opinion of 50% of the respondents who stated that they experience more fatigue by using e-mail and Moodle to communicate with masters than discussing directly. After analyzing the correlation between the number of tutees and means of interaction with them it was discovered that the more students a professors mentoring, the worse opinion they have about virtual communication and the more often they feel techno-stress.

3. Discussion and conclusion

Summing up, it can be stated that professors positively evaluate the mentoring of master students by CMC.

The first hypothesis was confirmed: the opinion of professors on CMC is positively related to the number of students tutored. The more students are tutored by the teacher, the less comfortable he feels about giving the major part of his consultation by CMC. In order to maintain a high quality of education, up to 5 students should be tutored by one teacher and the maximum number of master students guided should not exceed 10 students in a one year period.

Important restraint with tutoring students in virtual manner is the time required to write e-mails and other comments. It is basically problem of asynchronous communication.

Teachers feel bigger fatigue when communicating with students virtually than when communicating by FtF. The biggest stress is caused by intensive communication by e-mail. The second hypothesis is confirmed partially: the more students a teacher is mentoring, the more stress he suffers, but the amount of stress is not reduced by increasing the variety of communication means.

Despite the form of the communication (whether it be synchronous or asynchronous), master students are more likely to be active when communicating virtually. However, students choose a role of an active „talker“ (e-mailing, short messaging) more often than the role of an active researcher. In addition, the students show less responsibility for their master thesis when using CMC.

In summary, CMC is undoubtedly useful mean of pedagogical work. But from managerial point of view it seems that moving the collaboration of the teacher and the master student into the virtual space would not be a rational decision. There is a need of additional research for the more reliable conclusions to be made on how CMC affects the professors' productivity and effectiveness when mentoring students.

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