

# Online Discussion Forums for Mass Events in a Medical PBL Curriculum

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**Abstract:** The web-based discussion forums used in the Bernese medical curriculum serve as a means of communication between faculty and students and are well frequented for questions and answers relating to mass events. Using this example, our article takes a look at the critical success factors in implementing e-learning in university curricula and discusses the advantages and disadvantages of a uniform and binding e-learning culture. We address the questions of what influence the discussion forums have on the mass events, and what influences are important in the establishment and maintenance of an e-learning culture. We discuss the online votes from faculty and students on use and significance of the discussion forums.

**Keywords:** Online discussion forum, medical curriculum, problem-based learning, e-learning culture

## Introduction

In a Problem-Based Learning (PBL) curriculum, the communication between teachers and students plays an expanded role, yet for the (remaining) mass events, too, the lecturers are involved in a role change [1], since the students develop and expand on constructivist approaches in the tutorials as well as in the phases of self-study [2]. In this learning process, questions arise that can be in part answered by consulting with textbooks and other sources; on the other hand, uncertainties remain because those sources do not answer all the questions conclusively, and / or because the students are struggling under their misconceptions in the respective field which they cannot readily shake off [3].

Many students show an enhanced need to communicate on professional issues: they want to consult with their lecturers and fellow students to get more input [4]. To that end, exchange opportunities should be institutionalized in PBL. In particular, talking with lecturers who teach exclusively in mass events can only occur outside their lectures.

Communication institutionalized in PBL between students, for the purpose of developing a constructivist approach, takes place in the mandatory tutorials as well as in voluntary, self-organized study groups; in tutorials, small groups (8 to 10 people plus tutor) work out learning objectives based on case reviews. Institutionalized communication between lecturers who teach in mass events and their students occur in specialist consultations (approximately 1-2 hrs. per week and lecturer) which are listed in the class schedule. The lecturers are available during these time windows in their offices for consultations. Another form of contact some students exercise is a brief consultation following a lecture. However, for more than 100 students per year (and event), this time window opens all too rarely and is too short.

The expert consultations have, in addition to the potentially positive social effects of personal contact with lecturers important to some students [5], major organizational disadvantages. Therefore, discussion forums on the internet platform [studmed.unibe.ch](http://studmed.unibe.ch) were launched where students can ask questions and lecturers or other students can answer them. Lessons learned: Contextually appropriate structuring of the discussion forums is crucial for their success [6]. The amount of work for moderators in the forums can be substantial when many students write articles and can only be accomplished through a dedicated approach [7]. When participants perceive themselves as socially exposed through their posts, the need for anonymity in the forum increases [8].

## **1. Importance of the Online Discussion Forums from the Perspective of the Lecturers and Students**

In an anonymous online survey we asked the lecturers and students of the Bernese medical curriculum questions about the online discussion forums, their types of use and frequencies as well as their importance within the curriculum. The responses by lecturers and students in undergraduate studies show (1st to 3rd year, table <http://ufive.ch/i2>) that the discussion forums as a teaching and learning aid are mostly considered useful and important.

The data concerning the undergraduate studies are of special interest to us since there, the use of discussion forums is unified and interwoven with the conduction of mass events. Do the posts in the discussion forums have a direct impact on the consolidating mass events (syntheses)? 21 (47.7%) lecturers responded with “yes, often”, 10 with “yes, rarely”, 4 with “no”, and 9 could not answer the question. Of 87 lecturers with at least two mass event lectures in the undergraduate curriculum of the past academic year, 44 filled out the online survey. Of the 449 students who were invited twice by email, 150 participated in the survey, of which 103 stated that they deposited technical questions in the forums. 46 students (30.7%) detected an effect of these technical issues on the synthesis-mass events, 11.3% denied that effect, and 26.7% did not know.

It is gratifying to see that the students praised the quality of information flow: the vast majority stated that their questions were answered within 24-48 hours and that the answers were helpful. As a result, it is not surprising that over two thirds of the students rated a hypothetical termination of forum operation as a loss. It is interesting that the students attach more value to responses by lecturers than responses by fellow students. The lecturers underestimate the importance of forums for students: the statement, "the studmed forums are important to the students" was judged by only 31.8% of lecturers as being "largely true". Yet, about half the lecturers rate the forums as fully or partially important to them, and 43.2% believe all or part to be of great educational value.

## **2. Discussion**

We distinguish four dimensions that contain acceptance-promoting elements: the individual will, the social imperative, the personal skills, and situational enablement [9]. These dimensions are supported by cultural elements, usability elements and technology elements. A basic prerequisite for the effectiveness of these success factors, however, is that users have the necessary skills to operate e-learning technologies [10], which is presumed to be the case with students entering university nowadays. Among the lecturers such knowledge and skills vary [11]. Considering all that, e-learning and mass events have the potential to closely work together in synergistic integration. Based on the use of web-based discussion forums in the study of medicine at the University of Bern, we have shown that electronic

communication and collaboration, which we generally see as key components of e-learning can cover needs that are not being met in mass events. This applies to both students and teachers: our mass events, each with over a hundred students leave little room for questions from students, and lecturers do not know the students' shakiness with the subject matter. These communication gaps can be closed by the activities in the discussion forums.

The synergistic integration of mass events with e-learning in the Bernese medical curriculum is complemented by the systematic publication of the lecture slides and the release of 60% of the lectures of the third academic year as video podcasts. This kind of unified, mandatory use of e-learning has great potential for success if the participation (use numbers and penetration of the curriculum) is taken as indicator of achievement. This raises the question of how to weight the participation as success indicator; participation is the critical factor in the use of discussion forums, it is a multiplier of effects: increased motivation for learning, learning success, and efficiency through discussion forums.

It is apparent from some free-text responses by lecturers in the survey that teachers comply with an e-learning culture put in place, even if they prefer other solutions, not least because of the expectations held by students and the resulting social pressure on the lecturers. This brings us to a difficult situation: The success of the unified, mandatory e-learning implementation in the curriculum versus academic freedom of the lecturers. We support the critically evaluated, unified, mandatory use of e-learning applications, but emphasize that they must remain subject to continuing assessments, and that the teaching staff within the practiced e-learning culture must have enough degrees of freedom. The existence of a wide range of both dedicated supporters and dedicated opponents of a practiced e-learning culture is almost culture-immanent, but not an insurmountable obstacle to the implementation of a uniform e-learning strategy.

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