IS THERE STILL A NEED TO ENHANCE E-COMMUNICATION SKILLS AND E-MODERATION SKILLS OF STUDENTS AT A TECHNICAL UNIVERSITY?

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Abstract

More and more teachers are developing complex e-learning designs including online communication and online co-operation during two lessons.

The intensive use of Computer Mediated Communication (CMC) tools in lessons and seminars at brick and wall universities requires a complex set of skills from students and teachers. As of the intensive use of new technologies and social media technologies many lecturers – especially in the sector of Higher Education – are of the opinion that students only should be trained in using and organizing the tools (e.g. communication tools of Learning Management Systems) but not in „online" soft skills or e-moderation techniques.

But the communication skills of young students were skilled mainly in leisure time context (private purposes). Professional e-communication skills and e-moderation experiences – important e.g. for online learning in groups – are almost not available.

This paper describes a curriculum design and investigates the utilization of CMC tools with focus on enhancing e-communication and e-moderation skills.

Keywords: E-Moderation Skills, e-Communication Skills.

1 INTRODUCTION

E-Learning settings and e-learning tools are changing the methods of teaching and learning at brick and wall universities. More and more online-settings are complementing frontal lectures.

Keywords as life long learning, self paced learning, etc are expressing that students have to react to new challenges. The transition to flexible learning skills including online-organisation, online-communication, online-moderation requires a set of online soft skills from teachers and students.

Many teachers, especially at universities of technology, are of the opinion that students should be trained in using and organising the tools (e.g. Learning Management Systems) not in soft skills or e-moderation techniques. As an example, uploading content and answering forum contributions are seen as core tasks.

Teachers and very often management of universities advance the view that students do not require training in soft skills in general and online soft kills in particular. On the other hand teachers are suffering from inprecise and informal communication style of students, their lack of online-moderation techniques and very often a lack of communication and organisational techniques in Online-settings.

Of equal consideration are the students's existing competencies and any gaps in their competencies related to the roles they will be required to fulfil. Opposite to this opinion (which is expressed only informally), we determined a lot of programmes and research activities in which the importance of training of online moderation skills is expressed. see Schröder, Wankelmann [1], Cornelius, Müller [2].

Therefore, our curriculum is focusing on soft skills including e-moderation, organisation of online communication and tutoring of online communities. However, we assume that today´s students already have enough pre-experiences with these tools from a technical point of view.

Skills such as time management, aspects of online collaboration, structuring online communication, and moderating online-groups are required to increase interest and learning outcomes-oriented learning arrangements. In addition, our concept includes theoretical and practical experiences with videoconferencing. According to our opinion, videoconference sessions are well suited for making experiences with all aspects of online communication and organisational issues. Therefore, students are provided with the possibility to act as online-moderators during the lessons.

Including videoconferencing in the curriculum was based on the idea that videoconferencing is not only able to stimulate motivation but also mediated all aspects of online moderation and e-competences such as virtual time management, organisational issues, etc. Therefore, our concept is also an attempt to increase efficiency of students.

The strength of the program is the mixture of theoretical inputs combined with practical experiences including videoconferencing and other forms of online communication representing main features of them. It will be discussed the methods and developed trainings modules. The de facto learning outcomes of this lesson will be compared with the expected learning outcomes. At last benefits for higher education focusing on e-communication and e-moderation skills by students will be analysed

2 DEVELOPMENT OF ONLINE-MODERATION CONCEPT

2.1 Enhancing Soft Skills

To improve students' soft skills, especially moderating skills, the knowledge has to be learned not only by theoretical lessons but rather by practical tutorials (see Schröder, Wankelmann [1] or Bremer [3]. Our four online exercises during training were mainly based upon the *experimental learning* approach by [4]. This approach enabled stressing students' self-awareness and particularly focusing on enhancing their e-skills. To further emphasise the linking between attending lectures and exercises, the following fundamental criteria were considered:

Responsibility: Each group had to have a different Online-moderator at every online exercise. Online-moderators were not only responsible for meeting the exercise's deadline, but also had to act as the group's e-tutor. They had to ensure continuous participation of all group members as well as to answer students' requests by supervising varying communications tools provided for each exercise. Hereby, the Online-moderator acquired tutoring and moderating skills enabling him/her to experience aspects of future work. Moreover, teachers monitored every action taken by the moderator. With qualitative feedback after each online exercise, moderators' activities were reviewed and reflected.

Change of roles: According to Merkt [5], *change of perspective* is a key aspect of learning. Thus, one key course element of our concept was to mediate different experiences of communication technology, especially at videoconferencing. Hereby, not only technical skills were considered but according to Packham [6] or Mündemann [7] also moderating guidelines and tutoring aspects, were trained. For example: *How can I technically supervise order of different (simultaneous) requests (in videoconferencing, forums, etc.)? How do I structure and moderate discussions? How can I identify lurking students and which actions could/should I take? Etc.*

Due to applying different CMC tools, our course participants had to gain experience as trainers as well as students to understand characteristics of both perspectives. Change of roles enabled them to enhance their skills by varying the task of active moderation and tutoring (role of trainer) as well as simple participation in collaborative learning (role of student). Hereby, change of roles always took place within a 'safe' setting as students worked together with their colleagues.

Step by step decreasing of guidance: This e-tutoring concept aimed to encourage students' self-reliance with regard to enhance their e-skills. To provoke self-reliance, the curriculum design particularly considered step by step decreasing of teachers' guidance. Using the example of videoconferencing, initial videoconferencing sessions were carried out on campus in 'safe' university settings, whereas final sessions were realised without spatial limits i.e. students could participate from various locations such as work or home. Another advantage of this strategy enabled teachers that they could take corrective action in case of technical difficulties or severe moderating problems faced (during the first videoconferencing session) by giving immediate as well as face-to-face feedback.

2.2 Education of Didactic Techniques

Soft skills and didactic aspects are more likely to be neglected at universities of technology than technical aspects of media literacy. To overcome underestimation of these competences, our curriculum set considerably high emphasis on didactical techniques within utilisation of CMC tools. Theoretical education of these aspects (adapted from Salmon [8]) was basically considered during lectures. Assessment of the online exercises always investigated to which extent students 'acted' upon didactical techniques. For example, moderators had to moderate and prepare e-content according to the specific target audience.

As another example they had to support participation by stimulating collaborative. Moreover they had to encourage discussions and raise debates by enhancing critical thinking as well as look after ideal pacing (continuous monitoring of motivation and activity).

2.2.1 Enhancement of communication skills

One of the university's important aims is to provide high teaching quality. For example, students should always be able to ask questions directly to their lecturers to get useful and learningsupportive feedback between the classroom units. However, this demand is highly challenging since teachers face additional work described before. Therefore, students should be trained towards online communications skills to meet this demand. They should have not only enough expert knowledge but also sufficient moderation competencies to be able to supervise forums, discussions and even synchronous learning sessions, such as chats or audio/video conferences. This communication skills are needed to be able to learn in online-learning communities.

2.2.2 Supporting collaborative work

As virtual environments are used more often in university teaching, students should be capable of supervising peer work contributing hereby to development of courses' community sense. Furthermore, students should serve as role models in communication ensuring optimal peer climate.

Taking these facts into consideration, our concept has to place major emphasis on e-moderation as well as on usage of communication tools. The majority of the lecturers stressed the fact that students have to be able to set up certain communication tools and apply them in terms of constructive learning support.

2.2.3 Videoconferencing

As mentioned before, videoconferencing represented an integral part of our curriculum. However, it is important to stress that videoconferencing was not used to improve transfer of knowledge or quality of teaching as there are many criticisms reported. For example Knipe [9] and Freeman [10] describe that not only quality of teaching but also learning efficiency drop as compared to traditional face-to-face education.

In our investigation, videoconferencing was therefore applied as an integral tool that enables students to face immediate experiences in online moderation and communication skills. Due to the *immersive character* of videoconferencing, *responsibility* and also the *change of role* became more apparent hereby supporting the acquisition of desired online-learning skills.

3   DEVELOPMENT OF ONLINE LEARNING SOFT SKILLS LESSON

Communication and moderation skills have to form the central part of our curriculum. Due to years of experience in teaching, these competencies have to be educated not only by theoretical lessons but rather by practical tutorials as Schröder, Wankelmann [1] or Bremer [3] stated. Within classroom lectures, theoretical background of moderation as well as communication is given, whereas within four online exercises practical skills are trained (see Tab. 1). These exercises were mainly based upon the *experiential learning* approach by Kolb [4] enabling to emphasise students' self-awareness and particularly focusing on enhancing their skills.

The e-tutoring concept described above was realised within a practical course at Vienna University of Technology in Austria. To ensure applicability, this course was embedded within the curriculum of 'Informatics-Didactics' as well as the general elective course catalogue of 'soft skills'. The course has duration of one semester with a workload of two hours per week.

As mentioned before, four online exercises were carried out to enhance students' tutoring skills. In the following Table 1 the online exercises are summarised considering goals, didactic methods, major learning outcomes as well as applied CMC tools.

Exercise number	Objective and Description	Didactic Method	Learning Outcomes	CMC Tool
1.	Evaluation: Evaluation of real e-learning situation. Group-building	Field analysis followed by online teamwork	Enhancing e-grouping and e-moderating Essay	Discussion forums
2.	Synthesis: Development of a self-contained online-concept based on LMS Moodle	Online project work	Project Report, enhancing e-grouping and e-moderation	Discussion forums, chats
3.	Application & consilidation: Practical online tutoring experience of self-contained e-learning setting based on LMS	Experimental learning (within a university setting)	Best practical Content Template for Moodle, gaining practical experience in e-moderation, online-communication skills	Videoconferencing (emphasising audio), chat, whiteboard
4.	Application & consilidation: Practical online presentation and experience of online scenarios	Experimental learning (within individual settings, i.e. work, at home, etc.)	Gaining practical experience in e-moderation, utilisation of didactic techniques	Videoconferencing (emphasising video), survey tools.

As indicated, classroom lessons represent education of theoretical aspects that were organised in Modules:

- Modul 1 *E-Learning basics* focuses on: e-learning models and requirements on teaching and learning, evaluation of technology in respect to didactical as well as organisational conditions.

- Modul 2 *Competencies and Role Models* focuses on: understanding of e-Learning role models, online-collaboration techniques and methods of enhancing critical thinking.

- Modul 3 *Online Commmunication* in E-Learning focuses on: media competence, planning interactive use of E-learning tools, designing feedbacks and online communication literacy.

- Modul 4 *e-Moderation* focuses on: (a)sychnchronous moderation, online tutoring of groups, building tutoring empathy.

As an example, communication and moderation modules make up 60% of lecture. As student´s future tasks and exercises will take place in online environments primarily, our curriculum emphasises working online. Therefore, all discussions as well as collaborative working and tutoring exercises were carried out online, hereby creating an 'unusual' learning scenario. Due to the fact that our course concept was realised at a brick and mortar university, working (merely) online is not commonly emphasised. To keep the students' interests alive, various didactic methods were applied.

First, each online exercise trained a different communication tool (Tab. 1). Furthermore, the design of our concept aimed to increase interaction progressively. At the beginning of the course (exercise 1 and 2), asynchronous communication tools were used, whereas at the end of the course synchronous systems were utilised. This strategy of incremental enhancement of interactivity made it possible to teach students having different competence-levels.

4   UTILISATION OF VIDEOCONFERENCING

One of the most important issues for the curriculum was to develop a concept that enables students gain experience with moderation as well as communication tasks as lively and actively as possible.

Hereby, we choose videoconferencing as the central method since this computermediated communication tool (CMC) is closest to face-to-face communication and also is capable of demonstrating limits of online co-operation. Due to its synchronous, immersive as well as collaborative character this tool is ideal for stressing immediacy of self-awareness and online character of tutoring.

Compared to other tools, videoconferencing enables new insights since this tool in not commonly used for training of moderation and communication skills at brick and mortar universities.

To increase students' motivation, within the videoconferencing sessions different tutoring scenarios were trained. Hereby, students were facing new technology-related experiences of online-learning. For example, supervising of online collaborative work and managing group members' requests (within videoconferencing-discussions) were educated in order to experience didactic approaches in practice. Within these videoconferencing sessions, students were also able to face immediate coaching scenarios, hereby developing competencies related to emotional and didactic awareness.

As described, our curriculum emphasises *changing of roles*. To train videoconferencing was highly structured. After each slot, change of the moderation role occurred. The scheduling presented also enables time- as well as cost-effective utilisation of the videoconferencing system.

As the tool for videoconferencing, Adobe Connect Pro was used. This web-based system integrates various communication forms (audio and video transmission, chat, whiteboard, presentation of files, survey tool, etc.), enabling not only to practice different online-learning scenarios but also apply creative didactic techniques. Decision criteria for its utilisation were good quality of audio-, video- as well as data-transmission and role management that enabled changing of roles as described above. Due to students' technical skills as well as Adobe Connect Pro's intuitive usability, hardly any software training was required, enabling teachers to start education of related skills right from the beginning.

5 RESULTS AND CONCLUSIONS

This paper describes a soft skills concept that enables consideration of university specific requirements within training of students. Most publications show either a unique or a rather restrictive curriculum that can't be applied. Therefore, we have developed a procedure model to integrate university demands into the conceptual design of soft skills education.

Our online soft skills concept places major emphasis on e-moderation as well as on the usage of communication tools.

Within various online exercises, students were educated, emphasising hereby working online and experiencing authentic tutoring scenarios both from a teachers' as well as a students perspectives. Due to videoconferencing's synchronous, immersive as well as collaborative character, this tool is ideal for stressing immediacy of self-awareness and online character of tutoring. This approach was highly effective since university's evaluation as well as students' feedbacks were overwhelmingly positive.

Furthermore, it should be mentioned that a fundamental aspect for the success of videoconferencing was its novelty, as this communication tool is not yet commonly used within teaching at a brick and wall university.

The current concept has been tested with a small group of students. As a further step, we plan to investigate whether our didactical concept works with 50 up to 100 students in one course. Hereby, we also want to find out how scheduling can be optimised to provide all students with a high amount of direct online-moderation experience. As a possible solution, clustering into further sub-groups might be adopted to maximise capacity utilisation of videoconferencing.

As a further result, we have summarised our experiences with videoconferencing, introducing 'Nine recommendations'. These recommendations, described by Rakoczi et al. [11] give explicit advice to utilisation of videoconferencing within training of future e-tutors.

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