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D.2 The motivational value of working groups within an international setting: teaching political science as a process of collective reasoning

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1. INTRODUCTION: EVOLUTION OF COMMUNICATION TECHNOLOGIES AND TEACHING STRATEGIES

Within the last two decades, we have witnessed a shift in theoretical approaches of learning processes away from tutor- to learner-centred approaches. In this new teaching and learning environment, “teachers do better to ask good questions rather than to answer questions in a definitive manner” [Fries04]. This shift coincided with a rapid development in communication and computing technologies. They offer new opportunities for teachers and learners. Right now a major reassessment of teaching and learning strategies takes place at education and training institutions. In our paper we concentrate on the hypothesis that group work helps to motivate students in a cross-border learning arrangement. This paper is based on our experiences of an international online-based seminar. Therefore, we also present two additional findings related to these aspects of group work. Firstly, as the very existence of our seminar proves, the online basis makes group work in an international setting possible by overcoming the physical as well as mental distances. Following that, we are convinced that group work helps to make the best out of an international setting by fostering close and intensive contacts between students and tutors from different countries.

Our argument proceeds from a general evaluation of means and ends of group work, followed by an assessment of suitability of this teaching strategy with relation to specific academic cultures. We then continue with an analysis of our empirical experience of online collaborative learning in the ForPol online seminar, and conclude with an outline of advantages and challenges of online group work.

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2. WHY GROUP WORK? MEANS AND ENDS OF COLLABORATIVE LEARNING

We can roughly distinguish between passive and active approaches to learning. While passive approaches assume that students learn by receiving and assimilating knowledge independently from others, active or constructivist approaches present learning as a social process [Björ04, For96]. In this sense, the learner constructs knowledge by formulating ideas into words. These ideas are constructed not only through individual reasoning but in particular through communicative reactions of others. That kind of peer-to-peer interaction, structured within working groups, is known as collaborative learning [CaHe05]. This learning approach implies a model of interactive teaching, which differs fundamentally from the traditional one-way knowledge transmission [For96, Hara90].

Collaborative learning has become an important trend in higher education, mirrored especially in the widespread use of computer-based learning systems [Kosch96]. But learning within groups is not only a response to the rise of internet-based “network society” [Cast96]. It is primarily convincing through its pedagogical effects. As studies show, collaborative learning “tends to increase motivation and satisfaction within the learning process in general” [John’94, Björ04, Rude04]. Hereby, we can distinguish between cognitive, psychological-emotional, and management-related effects on students. The cognitive effects result from processes of self-explanation, where different knowledgeable members benefit from each other. Collaborative learning also combines various styles of learners, confronting the group members with different perspectives on the same subject [Rude04, Brem00, Kolb85]. Psychological and emotional effects are expected to create a favourable climate to learning. Working with peers reduces uncertainty, helping to find their way through complex tasks [Fran’06, Hara90]. But it is also a challenge to one’s self-image, forcing to reflect one’s view and role applied in the group. What we call management-related effects are social skills which are fundamental for the increasingly team-based professional environment. Within groups, students need to organise their work efficiently and independently from the teacher. They have to fulfil given tasks within a clearly set deadline which trains them to reduce the complexity of facts and to share responsibilities within the group [Soli’07, Fran’06].

But the described model of learning also challenges the role of the teacher. As Carell and Herrmann [CaHe05] state: “Teachers become in that process a facilitator, a coach who carefully prepares and accompanies the process of collaborative learning and who gives feedback”, where necessary. For those who favour the traditional “frontal” approach of teaching, that might be an uncomfortable image. Therefore, let us take a
look at what we call “academic cultures”, asking under which conditions it makes sense to implement such a tool.

The findings presented here do also apply to online group work. As the extensive study by Roberts shows: The role of online teachers is rather that of a facilitator in the learning process and open communication is critical to team success. Therefore various online tools and strategies are needed to support teamwork. Teams need to adapt their communication patterns throughout their project; online tools are used for organizing and managing data as well as interaction with the whole class and the instructor [Rob04].

3. PARAMETERS OF ACADEMIC CULTURE

The self-understanding of a university teacher is shaped first of all by his/her individual personality and interests, but also by the academic environment - what we call “academic culture”. As mentioned above, various approaches to learning imply different models of teaching. Despite inter alia the Bologna process, distinct academic cultures resulting from pedagogical traditions but also experiences with political changes at European universities persist and create different environments for teaching. While ignoring structural and financial conditions, we would like to highlight two parameters which we regard as helpful for defining academic cultures and thus for demarcating the space available for the implementation of group work (scheme 1):

Scheme 1: Parameters of academic cultures
Obviously, the chances for a teacher representing an academic culture with a high degree of frontal teaching and hierarchy to successfully implement collaborative learning are limited. But compromises are possible, as our project illustrates.

4. FORPOL ONLINE: GROUP WORK WITHIN AN ONLINE INTERNATIONAL SETTING

4.1 The overall seminar setting

Resulting from an initiative of young researchers from the International Relations department of Dresden University, the seminar ForPol online - Foreign Policies in Changing Europe: Poland, Czech Republic and Germany compared connected political science institutes in Dresden, Prague and Wroclaw. The seminar was designed in a co-operative process by an international teaching team and has been implemented in the regular curricula of the three universities since 2005/06. In 2007 the integration of a British group of students from De Montford University in Leicester is arranged.

Our seminar is composed of 30 political science and/or international relations students in an advanced study period, ten students from each participating country, with an equal distribution of male and female students. They had no previous experience with e-Learning or Learning Management Systems (LMS). Academic goal of the seminar is to analyse different cases of the three states’ foreign policies during 1990s: the debate over the Turkish accession to the EU, relations towards Russia and the Iraq conflict. Online work during four-week modules is supplemented with four face-to-face weekend workshops. English is the working language of the project.

Based on the blended-learning method and using the freeware LMS OPAL, we created tri-national working groups. Students work within the groups in two ‘environments’, online and face-to-face. Besides the initial steps (reading a text and giving a statement on it in an online forum), students are expected to work in international teams (scheme 2).
4.2 The structure of the working groups

The seminar starts with a kick-off face-to-face workshop. There the students assigned to international working groups according to their specialisation of analysis. There were only two preconditions: equal distribution of students within the working groups and students from each participating country had to be represented. Besides

Each working group (sub-group) focused on one country and a specific set of factors influencing foreign policy: external factors or internal factors of foreign policy analysis. This made in total six working groups (sub-groups) from “Poland internal factors” to “Germany external factors” (scheme 3). The members of one group had to co-operate closely to write a comprehensive working paper during the online phase of each module. In fact most of the work in this seminar had to be completed through international online co-operation within the sub-groups.
The organization of the online group work was left to the students. A secure space on the LMS provided for each group various synchronous and asynchronous communication tools and a database including a wiki to exchange ideas, documents and literature. Students had to organize their group work during the online phase mostly autonomously. How they would divide the roles within the group (searching for additional literature, looking up and summarizing sources in the national language, actual writing of the final paper etc.) was left up to them.

In line with general findings on group work the tasks for the online working groups were thoroughly structured and regular feedback was provided by the tutors to help students divide the work load [JaJa04]. We could oversee the work of the students by reading their intermediate results as well as by following the debates in the online forums. Apart from that, we as tutors only intervened when problems occurred. The final group papers were then presented and debated by all the participants during face-to-face workshops.

5. CHALLENGES OF MANAGING WORKING GROUPS

During the course of our seminar we identified three main challenges to online group work:

1) Formulating tasks and guaranteeing knowledge exchange
2) Assessing group work
3) Dealing with the group identity
And for international groups: Awareness of different parameters in academic cultures.

5.1 Formulating tasks and guaranteeing knowledge exchange

We decided to use a web-based storyboard approach when designing the seminar. In contrast to a textbook approach, where basically all information is available online, the storyboard approach provides only the general outline (the storyboard) of the seminar. We provided students with basic information on foreign policy analysis and formulated precisely every week further tasks, next steps to be taken and deadlines. This strict formal setting was combined with open research questions, such as which internal factors have influenced the analyzed foreign policy most, according to the group’s point of view. As a result, students were strongly motivated to do further research in order to come to a conclusion. It is obviously impossible to anticipate the results of such “collective reasoning” in detail. We rather expected the students to argue their findings in a scientifically convincing way. In this vein, our role as tutors during the online phases was to provide the students with motivational feedback (“pluses first, minuses second”), making them aware of analytical problems in their intermediate research results.

The final online papers remained uncommented and were supposed to be read by all participants before meeting face-to-face. Thus, at the workshops we had to moderate students’ discussion of their results, ideally in a knowledge-enhancing way. But we also had to point out problems and mistakes. Here the question of different “academic cultures” comes into play: When your role as a teacher does not rely on transferring factual knowledge, are you open to regard the students also as research partners? Will you maintain your unique position as a teacher while offering a fairly liberal approach to learning? And – provided the answer is ‘yes’ in both cases – how do you assess and mark the results of the group work?

5.2 Providing assessment through group discussion

Nothing releases the tutor from his/her responsibility to assess the students and mark their effort. We conclude, however, that the traditional focus on the results of students’ work is not sufficient for evaluating group work. Rather than inquiring primarily whether students “got the results right” a teacher should first of all assess students’ analytical ability, asking whether they “addressed the problem correctly”.

Moreover, when managing working groups, what matters is not only what you assess but also how you do it. To use the full potential of the working-groups setting we suggest that instead of “lecturing” the students on their final papers it makes more sense to use a form of guided discussion in which students comment on the results of their
colleagues. This provides an opportunity for all students to engage in the process of identifying and correcting mistakes, but also to raise arguments to their defence. The challenge for the tutor is on the one hand to structure and moderate the discussion in such a way that it results in concrete conclusions. Otherwise it might lead to confusion rather than the desired clarification. On the other hand, he or she must still be in a position to assess. That, however, could be challenged by a striking feature that we discovered: the formation and manifestation of a strong group identity.

5.3 Dealing with “group identity”
Despite meeting their colleagues exclusively online for most of the time, the students in tri-national working groups managed to develop a tangible team spirit. This, indeed, can be regarded as one of the primary motivational advantages of group work in general: At the emotional level of the learning process, it helps to transgress the purely academic world and to create a situation close to what the students will most likely experience in their professional career.

While very helpful in motivating the students, group identity also caused some problems during the assessment process. Proving correct a well-known Foreign Policy Analysis finding that the more time and effort one spends on a problem, the more he/she is convinced of the clarity and correctness of the results, our students sometimes refused to accept and internalize the critical remarks to their work. The fact their findings had resulted from an intensive process of collective consultation and peer review raised their resistance to external criticism.

5.4 Awareness of different parameters in academic cultures
As mentioned above, in different countries various approaches to learning imply different models of teaching. During the conception phase of our seminar we discussed the different parameters of academic cultures. Scheme 4 shows how we positioned ourselves on the aforementioned scale. So far, the experiences of our first two seminars confirm the scheme, a scientific analysis of our international teaching situation is planned for the future.
A necessary condition for international cross-border group work is to be aware of the differences in academic cultures in the participating countries. During the preparation phase of the seminar in the international tutor team we were confronted with that and arranged the seminar setting with relevance to that. We made compromises with regard to our different academic cultures and we tried to make our students aware of that. However, we also allowed for individual teaching styles during the face-to-face group sessions. Therefore experiencing different academic cultures was an enriching experience for all participants.

**6. CONCLUSION: THE MOTIVATIONAL EFFECTS OF COLLABORATIVE LEARNING**

As our experience with *ForPol online* shows, the approach of collaborative learning motivates students by promoting individual initiative combined with openness to and respect for the work of others. When supported with the use of IT, it seems to be an ideal tool for teaching in an international setting where it allows utilising the international element to the maximum. However, it is as helpful for supporting locally bound classroom group work [Brem00].

Whether the concept of collaborative learning succeeds in each particular case depends significantly on a set of parameters we describe as “academic culture”. A tutor
interested in using the concept of collaborative learning should therefore ask the following questions: How are the tasks formulated? How do groups’ results get discussed and developed? How do I assess the students? But also: Am I prepared for possible resistance against criticism by the working groups? Tackling these challenges should be regarded as the first step which opens the way for a more efficient and fruitful teaching through the use of group work.

SOURCES
[CaHe05] Carell, Angela, Herrmann, Thomas, 2005, Computergestütztes kollatives Lernen an der Hochschule zwischen Fremd- und Selbstbestimmung, in: Welbers, Oaf Gaus (ed.), The Shift from Teaching to Learning, Bielefeld: Berthelsmann, p. 75-80.
Further information about ForPol online:
http://tu-dresden.de/die_tu_dresden/fakultaeten/philosophische_fakultaet/ifpw/intpol/Projekte/
http://instituty.fsv.cuni.cz/~karasek