

# Support for Freshmen at a Mass-University Program - The Cascaded Blended Mentoring Project

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## Abstract

This paper describes a new mentoring project that is being carried out at the Faculty of Psychology at the University of Vienna. The general objective of this project is to help freshmen to manage the demands that come with mass-studies like Psychology. Senior students act as mentors for a group of freshmen by sharing the experiences and knowledge they already gained in their studies.

The project is currently in its pilot phase and will start for the main test phase in fall 2007.

## 1 Introduction

An example reflecting the situation in the mass-study Psychology at the University of Vienna: Due to the lack of resources and an extremely high student enrollment the situation at the Faculty of Psychology is difficult for both students (especially freshmen) and staff members. At the moment there are approximately 6,000 students enrolled resulting in a current staff-student ratio of 1:134. Although recently many efforts have been made to improve the situation (e.g. electronic seminars, exam registration system, and information platforms) a remarkable number of freshmen still feel uninformed and helpless. Moreover, they lack basic competencies that are needed to succeed in the first year (e.g. team and communication, knowledge management, and time and self-management skills). Internal process analyses suggest that these difficulties are not only a beginners' problem. These do not disappear with the continuation of the studies, but persist and – in the long run – cause an increased waste of time and resources especially in critical phases, such as when students are expected to write their thesis or carry out empirical studies. The consequences are high dropout rates throughout the whole studying time.

## 2 General objectives

The Cascaded Blended Mentoring (CBM) Project aims at providing freshmen with an orientation program, in which students get monitored by an economic and suitable mentoring system that offers not only orientation but also conciliates basic competencies.

The objectives of the project are (1) to qualify students by providing them with orientation and information about the university structure and procedures, and by developing basic competencies, such as self-management and knowledge management, (2) to improve student support by involving senior students and their acquired experiences and resources, (3) to optimize teaching quality by minimizing recurrence of frequently asked orientation questions during lectures and (4) by stimulating reflection about topics discussed in class.

There are three main aspects underlying this project, namely orientation, development of generic skills and reflection.

## **2.1 Orientation**

Orientation means not only sharing information about the university structure and system and additional services offered for students, but also specific information about the major psychology. This would promote social integration and commitment (Pascarella, Terenzini & Wolfle, 1986), which are good predictors of student retention (Gold, 1988; Shanley & Witten, 1990; Tinto, 1975; 1993).

In the case of the psychology program at the University of Vienna, orientation means primarily preparing students to be able to master independently and successfully the complex situation derived from mass-studies (e.g. pre-registering oneself for classes or exams). Experience and internal empirical evaluations show that this situation can be very challenging and sometimes overwhelming for students, who have just finished school. Pancer, Hunsberger, Pratt and Alisat (2000) suggest facilitating the transition to university through preparation programs for freshmen. Merely supplying students with information, such as posting them in the internet, seems not to be sufficient.

## **2.2 Generic Skills**

Skills concerning (1) team and communication, (2) time and self-management, and (3) knowledge and information management were chosen based on the definition of generic skills as the ones that students need to become successful learners and practitioners in their fields of study and work (Dearing, 1997). They should be transferable and reflect students' abilities on how to access an academic problem, organize a solution, and successfully complete academic assignments. Along with them we expect a positive development on students' abilities of searching for literature, evaluating credibility of sources, dealing with new technologies and communication techniques (e.g. e-learning platform, student registration system). This intervention level should control learning behaviors, which in turn should positively affect academic performance (Lynch, 2006). Learning behaviors are specific methods used by students to practice and internalize learning materials.

### 2.2.1 Team and Communication

The psychology program at the University of Vienna is strongly group-oriented (e.g. recitation classes or lab classes where students have to carry out small scientific experiments in groups). Although students have already practiced this type of cooperative learning in school, experience shows once more that they still have difficulties to organize themselves in groups and to do group work. Thus it seems to be important to enhance students' communication skills at the beginning of their academic years. Former literature shows that communication skills enhance teamwork effectiveness, which in turn promotes social interaction and integration (Lehmann, Hertel & Konradt, 2001). Under positive interdependence collaborative learning can lead to higher self-efficacy and productivity and can enhance social competence (Francescato, 2006; Johnson & Johnson, 1994; 1995). Moreover it raises the responsibility for one's own learning and promotes a certain independence from external sources as the only sources of information (Damon & Phelps, 1989).

### 2.2.2 Time and Self-Management

Time and self management is a process of self structuring and ordering, whereas special criteria for an efficient planning of activities are used. This should optimize learning strategies and lead to higher academic performance. In the long run it is expected that students become more independent – self-regulated learners. This skill is important in the light of the permanent and fast-paced changing and advancement of knowledge (Krapp & Weidenmann, 1992). In this context self-efficacy is an important determinant for self-regulated behaviors (Bandura, 1986). It determines students' judgment of their own capabilities to master course demands. Self-efficacy and intrinsic motivation are strong predictors of course grades (Lynch, 2006).

### 2.2.3 Knowledge and (individual) Information Management

Knowledge and information management reflects the students' abilities of networking and applying knowledge acquired over time. This should help students to become better learners and practitioners with a high level of competence in the field. In our context, knowledge management comprises searching and obtaining information, appraising and being critical towards sources of information, organizing acquired knowledge, and knowing how to deal with information overloads and networking. It is important to note that these aspects denominate an individual knowledge management and not an organizational.

## 2.3 Reflection

Reflection enhances thinking about the selection of major and about personal maturity and expectancies regarding the major curriculum and future

profession as a psychologist. Moreover it stimulates thinking about one's own cognitive abilities (meta-cognition). This reflection should take place during all process phases and levels and should also have an indirect effect on academic performance and overall satisfaction (Sternberg, 1998).

Due to the situation generated by mass-universities, much interest has been focused on the reflection about one's own areas of interest and major program preferences regarding the question of a "reflected drop out". It seems to be of some advantage to give students the opportunity to re-think about their decisions in terms of academic program right at the beginning of the academic years, so that they can eventually correct it and maybe change the area. Considering this idea, drop outs, which occur in the first two semesters, are not to be rated as negative, as long as the decision was made based on the opinion that the field of study or program chosen does not meet one's own interests or abilities.

### **3 Method**

The CBM Project plans the implementation of a support program for first-year students in their first semester at the university. This intervention is based on two principles, a cascaded system of cooperation and information flow and blended mentoring.

#### **3.1 Cascaded System**

The main advantage of the so-called "Cascaded System" of cooperation and information flow is that it optimizes the use of resources at every level of the cascade. In the CBM Project there are three levels: freshmen (mentees), student mentors, and staff mentors. The total number of freshmen at the psychology program in Vienna is 480 in the winter and 120 in the summer term. The cascade was built in a way that 12 students will be coached by one student mentor, and every five student mentors will get support by one staff mentor.

##### **3.1.1 Student Mentors**

Student mentors are senior students, who have developed many competencies during their years at college. Their job is (1) to give information about the program and answer students' questions concerning the university structure and systems and (2) to carry out pre-established activities with the students aiming at improving their generic skills described above. It is of great importance that, by the beginning of the project, student mentors already possess certain abilities in e-learning methods, presentation techniques, team leadership, planning of learning activities, time management and giving feedback. Therefore they go through a special training seminar held by the staff members one semester before they start with their activities

as student mentors. During this time they are supervised weekly by staff members. By participating in the project the student mentors have the advantage of acquiring practical experience and broadening their competencies in their field of work. Furthermore, the students in the pilot phase showed a personal interest on contributing to improve the freshmen's situation. As a formal appreciation of their work and attendance in the seminar they also receive an official certificate in the end besides the credits.

### 3.1.2 Staff Mentors

Staff mentors are research fellows at the department of psychology. They meet the students twice a semester. At the beginning of the term, they introduce the students to the program and faculty and give an overview of the CBM Project to them. Their role at this point is mainly to motivate students to participate and point out the benefits of the project. At the end of the semester, they should reflect about the project together with the students and discuss topics which appeared to be of special interest for the majority of them. Moreover they act as advisors in case difficult scientific questions come up.

## 3.2 Blended Mentoring

The blended mentoring approach is based on theoretical and empirical knowledge about blended learning, which means the combination of e-learning via internet and face-to-face meetings (Garrison & Kanuka, 2004; Kerres & De Witt, 2003). This approach attempts to integrate the positive effects of the mentoring element in a blended learning scenario (Kram & Isabella, 1985).

Face-to-face meetings ensure a common ground for the understanding of the course and strengthen the students' commitment and motivation. Furthermore it is a more direct way to reflect on what is going on in the course, what could not be done in a pure e-learning environment. Blended learning brings together different didactical methods and delivery formats such as expository presentations, discovery learning, cooperative learning, and personal presentation (Kerres & De Witt, 2003).

The use of e-learning platforms has many advantages. In our context, the most important ones are:

- a. Support for a large number of students who are already familiar with new media and internet.
- b. E-learning is an established teaching tool at this university and necessary for accomplishing tasks in certain courses. Therefore all students are

expected to have these skills and competencies. The e-learning platform supported by the university is WebCT Vista<sup>1</sup>.

c. Information and knowledge can be collected and summarised for students in a very efficient way using FAQs and information platforms.

The use of an e-learning platform has two main purposes in the CBM project. The first one is to provide students with a discussion forum, where they can ask general questions about orientation in the studies and program. This e-room is supervised by the student mentors who answer questions directly or refer to websites or other information sources. In the long term these questions and answers are translated into FAQs. The second is that most of the information about and transfer of the target basic skills are arranged in the e-learning platform in the form of teaching modules. These modules are teaching units that should be carried out by the student mentor with their mentees. The units aim to develop the three generic skills already described on a very basic level. Mentees work both in teams and individually and to ensure that the exercises are immediately relevant to them, these are linked to first-semester seminars and lessons. Examples for exercises are: searching for literature on a first-semester topic, planning one's next activities in seminars and lessons or preparing oneself to study for an exam.

In Figure 1 the procedure of the modules is illustrated.

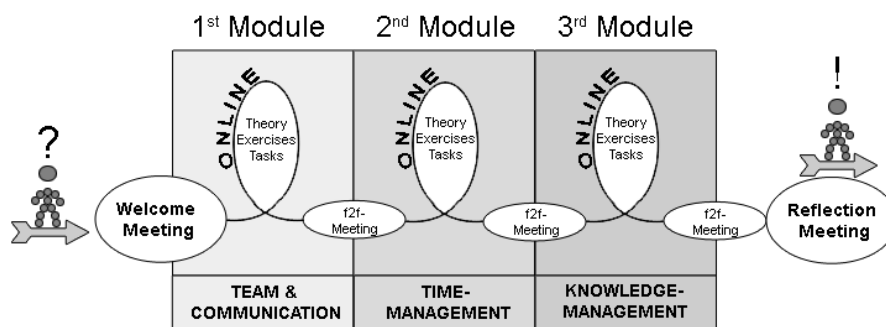


Figure 1: Procedure of the Modules

Every module starts with a face-to-face meeting where the student mentor introduces the main objectives and activities that will be carried out in the

<sup>1</sup>In WebCT one can combine content units with different specific activities, such as discussion topics (chats or discussion forums), self-tests, or assignments. WebCT enables sharing information and files and communication between students and teachers.

upcoming module. A personal story told by the student mentor illustrates the benefits of each generic skill. The online phase starts immediately after the face-to-face meeting and lasts about two weeks. The student group works on exercises and tasks on the e-learning platform. The online module also consists of reading units where the main theoretical background of each generic skill is described. A module is concluded in a face-to-face meeting where knowledge will be activated through discussion and short activities in practice (e.g. in order to enhance team spirit they create a name for their group and write group internal rules). Students have the chance to reflect about the topic of the module.

#### **4 Evaluation**

Both formative and summative assessments are planned for the project. In the pilot phase the student mentors are supported and supervised by the project staff members at all times, so that they can adjust the concept of the project to the real needs of the first-year students. The information acquired through this experience will be used to determine the final concept of the project.

During the test phase there will be a summative assessment. A pre- and a post-test will evaluate relevant skills and aspects, such as knowledge about the program and university campus and system, personal experience in the orientation sessions, time management skills, and e-learning skills. Moreover attitude towards higher education in general, the psychology program and the faculty, just as personal experience and satisfaction with specific aspects of higher studies are also going to be surveyed.

Goal achievement will be assessed by comparing samples (students from the winter term 2006/07 that did not participate in the project) in a quasi-experimental approach. The base line results found in the initiation phase are going to be compared with the results collected in the test phase and also with the ones from a follow-up assessment at the end of the summer term 2007.

#### **5 Conclusions**

The CBM Project portrays an attempt to improve the situation of freshmen in a mass-study program, such as psychology at the University of Vienna, without further burdening on financial and personnel resources. Apart from costs of the initial scientific evaluation study, this project generates no additional costs. The training seminars for the student mentors and their work with the freshmen are carried out within the regular curriculum of the students, which means they get credits for their participation. The use of the

already existing e-learning platform also contributes to the minimization of extra costs.

These aspects are thought to be of high importance in times when public financial resources are becoming scarce. Therefore it is to assume that this method could be of interest for other disciplines or programs, which face the same problems, due to the large number of enrollments.

At this point, although without knowing the results of the pilot and evaluation studies, an investigation of the demands, basic skills and primary problems faced by first-year students seems to be essential. Such an analysis for the psychology program is being conducted by Lukl (2007, in prep.) and Wiltshko (2007, in prep.). It is possible that different mass-study programs have different demands, but the structural problems might sometimes be the same.

Considering the results of prior studies in the educational research, this project is expected to show positive outcomes. The combination of relatively easily manageable e-learning modules with the individual support of a small number of students by one student mentor is essential. Additionally we can rely on the fact that the today's generation of students possesses high competence on handling new media. Searching for information on the internet and note-book classes are part of their daily life at school. However it is crucial to adapt these competencies to the specific demands of their area of study at the university, such as intended in the project module "knowledge management".

Especially in the field of studying psychology, high school graduates often seem to have false and unclear expectations towards the academic program and profession. Thus it is very important to provide them as soon as possible with precise and correct information not only about content and courses, but also about the demands of such a field of study. In the project this issue is sometimes addressed explicitly, such as in the module "knowledge management", but most of the times this occurs implicit through the interaction with more experienced students. At this point it is not clear if these measures will induce a higher drop out in the first two semesters – some students may notice earlier that psychology does not match their interests or abilities (reflected drop out), others, who may have had problems until that point for lacking on basic skills and for having no support, may come better to terms with their studies after participating in the project. In any way students' discontentment, disorientation and late drop outs should decrease and the students' commitment to the institution and to the field of study should increase. Finally also their engagement and academic performance should considerably improve.



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