
BAVARIAN VIRTUAL UNIVERSITY – BEST PRACTICE FOR A NETWORK OF HIGHER EDUCATION ONLINE

Steffi Widera, Ingrid Martin, Bavarian Virtual University, Germany

Introduction

Virtuelle Hochschule Bayern (vhb) / Bavarian Virtual University (BVU) is an institution set up by the universities and universities of applied sciences of Bavaria, one of the 16 German federal states. Its primary goal is to improve studying conditions for the growing number of students who require flexibility both in terms of time and place. This flexibility is best offered by virtual teaching and learning environments. The BVU funds developing as well as conducting of its online courses to guarantee sustainable operation and use of the courses. In order to get the most out of this expenditure, the Bavarian State Ministry of Education, Cultural Affairs and Science supports the coordinated and practice-oriented development of courses for use across all Bavarian universities via BVU.

With a portfolio of nearly 500 courses, the BVU considerably extends the range of offerings made available by Bavarian universities. Nearly 90 courses are currently in preparation. The academic year of 2016 / 2017 saw more than 180,000 course enrolments by more than 60,000 students.

For more than 17 years the focus of the BVU has been “blended learning at the macro-level”, not at the micro-level of a single course. Priority was given to asynchronous forms of communication; offering courses which are completely online, thus facilitating the import and export of online-courses between all 31 member universities and allowing for a maximum of the students’ flexibility. Characteristics of these *classic courses* of the BVU are their integration into the curricula of courses of study at face-to-face universities, exams to earn credit points, support for students by online tutors and matching of the course duration with semester intervals.

Now the BVU is expanding its portfolio. One of the new fields of activity will be the development of learning materials for blended learning scenarios on the course level. All teachers of our member universities may use these materials. The other new line of funding programme will be a range of open courses which meet university standards, with the general public as target group.

The role of the BVU

Organisation

Bavaria is one of the 16 German federal states and has a population of 12.9 million. According to the German constitution, all matters of education lie within the exclusive jurisdiction of the federal states, not the federal government. This federal structure causes a diversity of approaches and solutions which also apply to the implementation and organisation of online teaching and learning at university level. Most of the states leave strategy-building for e-learning completely to their universities, and by far not all of the German universities have developed a comprehensive strategy for the use of information technology and multimedia in teaching, learning and administration. Bavaria is among the minority of German states which actively motivate and support cooperation between universities in online teaching.

Typically, German universities are government-financed. Within the jurisdiction of the Bavarian State Ministry of Education, Cultural Affairs and Science there are nine universities and 17 universities of applied sciences. In addition, in Bavaria there exist universities and universities of applied sciences administered by the Protestant and Roman Catholic churches, art colleges and music academies, and the University of the Armed Forces (Universität der Bundeswehr) in Munich. Five of these not directly state-administered universities are also members of the BVU. In the winter term 2016/2017, in all Bavarian universities together there were 392,000 students (<https://www.statistik.bayern.de/statistik/hochschulen/>).

The BVU supports its member universities in providing high quality education for growing numbers of students. The aim is to complement the programmes of the traditional universities, not to replace them. With the support of the BVU students can earn credit points in individual courses of the classic course programme, whereas they obtain their degrees at their home universities, as the BVU does not offer complete study programmes. BVU courses help students to organise their individual studies in a more flexible way, which often helps to prevent extending the duration of their studies. To be able to study wherever and whenever you want is especially valuable for the growing number of students who have to care for children or other relatives, for students in employment or for those who spend time abroad.

The organisational structure of the BVU

The current organisational structure was adopted in 2005. The main body of the BVU is the Assembly of Member Universities, in which each member university is represented by a commissioner, who in turn is the key person for all BVU affairs within the home university. The commissioners usually are members of the governing body of their university. The Assembly elects the Programme Committee and the Steering Committee.

The Steering Committee consists of three people. Both the President and the two Vice-Presidents are presidents of member universities and represent the BVU in the Conference of the Presidents of the Bavarian universities and the Conference of the Presidents of the universities of applied sciences. The Programme Committee consists of eight people. Five of those must be Vice-Presidents for questions of teaching and studying at their respective

universities. Under the direction of the Managing Director administrations, finances, project management, PR & communications, student registration and technical support is run by the office located in Bamberg.

31 member universities send one commissioner

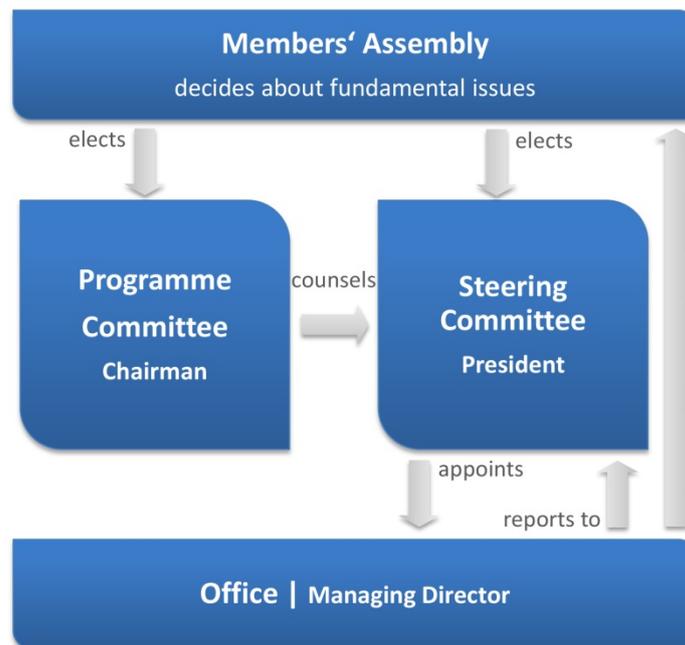


Figure 4. Organisational structure of the BVU

Principles, targets and tasks

In order to function successfully as an institute serving the needs of 31 universities by providing high-quality education in a cost-effective way, the BVU has to follow certain principles. The principles for the classic courses, which will continue to be an essential pillar for the BVU, are *blended learning* at the macro-level of the course of study, intensive tutorial guidance for the students, a programme policy oriented towards the needs and the demand of the member universities, and an elaborate quality management. Within the BVU concept and framework e-learning works as an integral element of higher education, and is financed by the state accordingly.

The classic concept of BVU: Blended learning on the macro-level

BVU has focused on macro-level blended learning with the aim to offer high-quality teaching with intensive tuition in a cost-effective way. By macro-level blended learning we understand the integration of single online courses into courses of study or curricula which otherwise (and for the most part) consist of *traditional face-to-face courses* (seminars, lectures et cetera). Thus, students can earn some credits in online-courses, but not their complete degree. This combination of face-to-face courses with courses that are delivered completely online (possibly with the final examination being held face-to-face) allows students a high flexibility. At the same time students enjoy all the benefits of a traditional face-to-face university. Therefore, macro-

level blended learning minimises the dangers of social isolation sometimes associated with e-learning.

Moreover, with online courses being developed once at one university, but used at several universities, the comparative cost-effectiveness is obvious. Thanks to macro-level blended learning, universities can *import* courses from other universities, including even the support of their students by tutors of the *exporting* university. In contrast to micro-level blended learning, this kind of import also helps universities to compensate a possible lack of teachers as well as room shortages.

The new fields of activity of the BVU

Blended learning on the micro-level

Many experts are reading blended learning as a combination of face-to-face teaching and web based teaching within a single course. We call this type of blended learning – as against the macro-level blended learning – *micro-level blended learning*.

The didactical design and high quality of teaching may demand a close linking-up between theoretical input, practical issues and hands-on training within one course session with a mix of the teacher's input and web based learning materials. Some educational goals can be reached best with an inverted classroom. The students will prepare what used to be the professors reading via web based trainings at any time and the precious time in the lecture room is better spend with discussing problems and deepening the knowledge.

With a new line of funding BVU is going to respond to this demand and to reach further target groups by blended learning materials beyond the classic courses. These smaller units may consist of videos, tests, simulation texts, again taking into consideration the needs of the universities.

Open courses – Open vhb

The Bavarian government passed a plan of action to enhance digitization, the “Masterplan Bayern Digital II” with an investment of 2.5 Billion Euro for the years 2018–2022. IT and digitization as a mainstream strategy are intended to improve and enrich all areas of life. The aim is to support people on their way into the future especially in the fields of education, work, mobility, health, housing, public administration. The BVU is part of the plan with the task of establishing a platform for open courses. Target group is the general public as well as future students. The courses are also supposed to promote Bavaria as an attractive place to study.

Which needs do the courses of *open vhb* have to meet? The courses should deal with topics which are of interest for people/learners outside universities to make them suitable for their personal and/or professional development. Open courses can be used every time with no regard to university lecture intervals (semester, trimester). The courses for the general public will have a smaller scope than university courses, but they must meet university standards as far as content is regarded. One of the categories among the open courses is intended to give support to future students who need to bridge knowledge gaps, no matter if after school or in transition

from bachelor to master courses as well as to facilitate the start at a Bavarian university for international students. These courses can have the regular scope of two weekly hours per semester.

Programme development and financing

In the summer term of 2018, the BVU offers approximately 500 complete online courses in the following fields of study: Business Science and Economics, Business Informatics, Computer Science, Cultural Studies, Engineering, Health Care Management, Introductory Courses, Key Skills, Languages, Law, Medical Science, Natural Science, Social Sciences, Social Work and Teacher Training. Approximately 90 additional courses are in preparation.

The first open vhb courses are expected to start 1 October 2018 as well as the development of blended learning units.

How does the BVU develop and enlarge its programme? A prerequisite for an application for the funding of classic online courses, preparatory or gap courses and blended learning units is the orientation towards the demand of the member universities. A consortium of at least two member universities is entitled to apply for course funding. The function of the consortium in this case is to assure the quality.

Twice a year, member universities are invited to submit funding applications to establish new university courses and open courses. The applications are submitted in a standardised form which can be downloaded from the BVU's website (<http://www.vhb.org/ausschreibung>). The interested universities build a consortium with a consortium leader. Both define the curriculum or curricula (courses of study) in which the new online course will be employed, and they give an estimate of the number of students they expect to participate per academic year. Open courses are enrolled by a consortium as well. The consortia and their courses do not function as *closed shops*. All member universities are entitled to employ the courses and blended learning materials, and students of all member universities can attend free of charge.

The funding applications are examined by the BVU's Programme Committee. The Programme Committee selects the applications most suitable for funding and passes its recommendations to the Steering Committee, the Steering Committee decides which applications to fund.

The production of classic courses with an equivalent of two hours per week and semester can be funded with up to 45,000 €. In order to enhance the quality of media didactics applicants will get up to 5,000 € additional funding if university media experts / university media centres are involved. In order to support the internationalisation of the member universities further funding with up to 10,000 € is possible if an additional course version in a foreign language (mostly English) will be produced. Open courses will be funded with up to 30,000 € for the equivalent of one semester weekly hour. For the production of learning material on the micro-level of blended learning a funding agreement with the member universities will be concluded.

In order to be accepted as a producer of a given course, a contract has to be concluded with the BVU where the exclusive right to use the course in online form is transferred to the BVU. Regarding to sustainability all the courses have to run for at least five years.

Tutorial guidance

Learning is to a large degree based on interaction. To minimise a possible dropout rate courses are supported by online tutors. Moreover, the idea of state-wide use and exchange of courses between universities would not be viable if there was no funding for the tutoring of students from universities other than the university of the course provider. There must be a sufficient incentive for this additional teaching effort. Therefore, the BVU funds the tutorial guidance of the students in standard courses with 30 € per student who has taken part in the final examination. The BVU funds the training of online tutors for its classic courses. Staff members of the BVU's course providers can take part in the training programme at the expense of the BVU. Furthermore, the BVU supports competence development for professors of its member universities by organising workshops on e-learning.

However, in open courses there will not be a close tutorial guidance; neither will there be the option to obtain a certificate or digital credentials. Financial support will be fixed for keeping the courses up to date.

Quality management

Evaluation and quality assurance are pillars of sustainability. They play a central role in the BVU's overall concept. The development of every new course, be it classic or open, is examined by the Programme and Steering Committee: moreover, it is closely accompanied by experts from the consortium which applied for funding and by the project management of the BVU office. Students' evaluations as well as experts' evaluation are taking place periodically. The results of the peer evaluation are discussed by the Programme Committee and the Steering Committee and with the course providers. They can apply for the funding of the updating of courses.

Technical issues

In the BVU with its 31 member universities a variety of learning management systems (LMS) is in use. This is a consequence of the variety of the subjects taught as much as of the history of the BVU. For the classic courses, no central server is used; all courses are on servers of member universities, and they are administered by the responsible persons of the member universities. While unification of LMS for the classic courses has never been an urgent issue, an authorisation and authentication infrastructure (AAI) based on Shibboleth was implemented. In case of open courses as well as in case of blended learning units a specific server will be used.

Conclusions

The success and the further development of the BVU depend on considerations of sustainability and the BVU's ability to serve the needs of four target groups: students, teachers, universities

and the general public. By serving the needs of these target groups, the BVU serves the needs of society and state, which in turn provide the necessary funding.

Students profit from the flexibility of online teaching which is especially important for *non-traditional* students. Therefore, the BVU concentrates on asynchronous forms of communication. Students of the member universities do not have to pay any additional fees.

The quality of the courses is assured by an elaborate system (cf. 2.5). The possibility of developing e-learning literacy while studying a subject as part of the curriculum enhances the employability of the students without requiring additional effort.

Teachers experience a wider range of pedagogical possibilities. Many of them also appreciate the possibility of reaching more students with their teaching. Where online teaching is accepted as part of the professors' workload, they also profit from the flexibility online teaching permits. By offering tutored online teaching on standard subjects, teachers can focus their face-to-face teaching on more advanced or specialised subjects. With the new line of blended learning units at the course level teachers will be able to enrich the instructional design of their face-to-face teaching with quality assured learning material. Working within the BVU network is also attractive for professors because of the grants by which the BVU funds the development and improvement of online courses and because of the financing of tutors.

Universities profit from the BVU in several ways. By using BVU courses and learning materials, universities considerably enhance their teaching capacities. Not only can they offer additional subjects, they can also restructure teaching capacities and use them for subjects less suitable for online teaching. Generally, universities face times of more intensive competition. But this does not exclude cooperation. On the contrary, in order to survive in a world of growing competition, universities will have to cooperate not only in research, but also in teaching. The BVU is an excellent example how to create and establish a properly functioning cooperation. One of the positive effects of this cooperation is the establishing of common quality standards for online teaching. The BVU avoids competition with its member universities. With the classic course programme for macro-level blended learning BVU has been holding a stake in university teaching since 2000. With the new fields of activity such as knowledge units for micro-level blended learning and open courses the BVU will even further improve its services for the member universities and society on the whole. Supporting the digital strategies of the universities means to respond to their demands of managing diversity and tasks of internationalisation.