Students' Mobility Capacity Building in Higher Education in Ukraine and Serbia / MILETUS

VIRTUAL MOBILITY CONCEPT Introduction

Prof. Dr. Thorsten Blecker
Olena Soltmann

Hamburg University of Technology (TUHH)

TUHH *Log U*
Technische Universität Hamburg Logistik und Unternehmensführung

Introduction

The importance of student mobility and exchange programs has been rapidly increasing in recent years. Students' mobility allows them to promote not only an intercultural competence and foreign language skills, but also **skills for working in international team and for solving problems in multicultural environment**. These competencies and skills are increasingly valued by potential employers.

The **traditional mobility programmes** (e.g. Erasmus exchange programmes) **enables students to study in foreign country** and provide them with whole organisational process (e.g. financial funding, visa issues, etc.).

Although the existing mobility programmes are open to most students, there are certain groups who are excluded from international exchange **due to various reasons** such as political, financial, professional, personal and health-related issues.

Virtual mobility

The achievement of equity of access to education is a priority for mature civil society. "**Everyone has the right to education and to have access to vocational and continuing training**" (EU Charter of Fundamental Rights).

Virtual mobility is a complement or substitution to traditional real mobility programs, because students and PhD students can participate in lectures at other universities without leaving their home university (Boonen et al. 2007).

The virtual mobility concept allows to collaborate amongst students and teachers from the different countries and regions **not dependent on their place of residence** without both physically difficult and expensive trips.

Definition of virtual mobility

Virtual mobility stands for the set of ICT supported activities, organized at institutional level, that realise or facilitate international, collaborative experiences in a context of teaching and/or learning" (*Erasmus+ programme guide).*

Virtual mobility included in other definition is „**a cross-border ICT-enabled learning that allows students to access and follow courses outside their own institution**" *(ECTS Users' Guide, http://ec.europa.eu).*

Virtual mobility is also defined as the use of ICT "***to obtain the same benefits as one would have with physical mobility but without the need to travel***" (Boonen et al. 2007, according to Elearning Europa 2007).

.. "through Virtual Mobility a university can also **offer international experience for students and staff** through an international discussion group, an international seminar or an international learning community with regard to a theme of a course or a cluster of courses" (Ruiz-Corbella et.al. 2014, according to Schreurs et al, 2006).

ICT supported activities: use of information and communication technology (ICT) such as videoconferencing, video streaming, collaborative workspaces etc. to support an educational environment for students.

TUHH
Technische Universität Hamburg

LOG U
Logistik und Unternehmensführung

Explanation of terms: Distance education

Distance education has a 30-year long history. During its existence, significant changes in the learning process and communication tools have been occurred.

Nowadays, the **wide variety of learning forms**, **communication tools** and types of **learning environments** such as an access (physical, virtual or blended), learning objective and design of learning programmes are available.

Some of the modern forms of learning include **e-Learning, online learning, blended learning, distance learning, digital learning** and **virtual learning**.

Some authors differ between terms "distance learning" and "distance education", we will use the term "distance learning" to describe an approach for virtual mobility.

Explanation of terms: forms of learning

E-learning

describes learning methods **which include the use of ICT**. E-learning supports teaching as well as learning due to the use of various technologies and tools. The purpose is to develop **an accessible online educational environment**. E-learning takes place **electronically and online** on desktop PCs as well as on mobile devices (Gaebel et al. 2014, according to Garrison et al. 2008; Klopfer 2008).

Online learning

defines a learning in which learning takes place **primarily via internet**. Online learning addresses people who are unable to attend the face-to-face meetings (distance learning) due to certain factors e.g. geographical distance. Online learning **is often referred to both, e-learning and blended learning**, as distance learners benefit from online learning (Gaebel et al. 2014, according to Garrison et al. 2008). Online learning can be considered as **a newer version or improved version of distance learning** (Moore J.R. et al., 2011, according to Benson, 2002).

Distance learning

describes learning methods with access to learning for people who are distant geographically (Moore J.R. et al., 2011). The term "distance learning" is often used as a **synonym of the online learning.**

Blended learning

describes **all teaching models** that are not exclusively face-to-face or online. Blended learning describes the **combination of both, face-to-face class-room teaching and the use of ICT.** The combination of face-to-face and online services in blended learning settings allows the user to flexibly access teaching content according to personal needs (Leibniz-Institut für Wissensmedien 2017; Gaebel et al. 2014, according to Garrison et al. 2008).

Digital learning

Digital learning includes online learning which includes blended learning, distance learning and e-learning.

Virtual learning

can be considered as a process and result of communication of participants in terms of educational process **in the virtual environment** (Kerimbayev, 2015). Virtual learning is also currently used as **a synonym of e-learning** (Simkova, 2013) and can be defined as an educational process by using information and communication technologies to create courses of study for the distribution of content and communication between students and teachers.

Comparison of various learning forms

	E-Learning	Online learning	Distance learning	Virtual learning
Type of interaction	Interaction between the students and the teacher is done **online by using of ICT** without	Interaction between the students and teacher takes place primarily via internet	Interaction with teacher who was physically located in a different place from the student. Interaction can happen **at disparate times**	Interaction between students and the teacher happens **face-to-face in real time (virtual reality)**
Educational medium	Students can be located **at the same building** with the teacher	Students are physically located **in a different place** from the teacher	Students are physically **located in a different place** from the teacher	Teacher can act **instrumentally** (can be replaced by digital medium, computer program, etc.) (Kerimbayev, 2015)
Type of delivery	Information materials is delivered via CD-ROM, the **Internet, an Intranet**, audio- and videotape, **satellite broadcast and intercative TV** (Moore J.R. et al., 2011)	Access to learning experiences **via the use of some technology** (Moore J.R. et al., 2011)	Delivery of informational materials using **print and electronic media**	Digital educational resources **for virtual reality**: interactive modeling, cartographic materials, sound recordings, text documents etc.
Learning environment	Learning Management System (LMS), Course Management System (CMS)		Traditional environment can be used as well as emerging media	Virtual Learning Environment (VLE)
Design methodology	Courses, programs and learning objects			Web conferencing, video lectures, online seminars

Explanation of terms: Learning environment for digital learning

Learning Management System (LMS) is a system or an application that typically integrate a variety of **online or offline tools** for communication and management studies (bulletin board, forum, chat, boards, registration, evaluation, testing, teaching courses, learning content repository management, curriculum and more). (Simkova et.al, 2013).
Most popular Learning Management Systems are Moodle, WordPress, Docebo etc.

Learning Content Management System (LCMS) is a tool or system that is used to create or compilation of the content.

Course Management System (CMS) is a system or a set of tools for the **online delivery of course content.** Most popular application are Blackboard, Moodle, Sakai.

Virtual Learning Environment (VLE) represents a **multipurpose system** with the specific pedagogical, didactic and methical technologies and necessary information resources such as data and knowledge base, **libraries, electronic training materials** by using modern software tools.

Nothing of these forms of learning can ensure the gathering of international experience !

With regard to mobility, students can be categorized as:

➢ **Mobile students** are students who cross national borders due to their studies. A non-mobile student is the opposite of a mobile student (Kelo et al. 2006, p. 5)

➢ **Non-mobile students** can be defined as students who cannot participate in "traditional" mobility programs due to a juridical, financial, physical or other reasons.

MILETUS Virtual Mobility

Home institution

Framework conditions for virtual mobility
Institutional agreement
Institutional representatives
Technical equipment and Internet connection

Host institution

Selection of students
Students' Mobility Office
Remote places
Credit recognition

Documentation channel
Leaning outcomes
Transcript of records

Preparation of courses
Selection of tasks for students
Students evaluation
Certificate

Teaching staff representative

Moodle platform

Virtual Mobility Platform

Remote Student

ICT channel
Videocourse; Videoconference

Remote Teacher

Types of virtual mobility

Virtual mobility can be categorized depending on the various factors:

➢ **Type of virtualization** (totally or partially virtual (*blended*));

➢ **Types of communication technology** (synchronous (e.g. chat) or asynchronous tools for communication, location dependent or independent, delivery of courses, etc.);

➢ **Types of educational technology and teaching techniques** (e.g. course, seminar, project, etc.).

Blended mobility

Blended mobility can support, **complement** and **innovate** the **existing real physical mobility** (e.g. blended Erasmus activities).

Blended mobility combines both **physical and virtual mobility** in order to take advantages of both approaches to student and teacher staff mobility.

Boonen and Bijnens, 2007

Opportunities and benefits of virtual mobility

Virtual mobility offers a lot of opportunities:

➢ **Intercultural competences and experience** of students and teaching staff through the collaboration in the **cross-border work groups**;

➢ **Virtual presence of students** enables them **to follow a course from another university** and participate in international discussion groups;

➢ **Preparatory activities which contribute to the internationalisation** (like for students involved in real exchange Erasmus programmes e.g. course of internationalization) **by using ICT**;

➢ Development and **delivery of joint courses** by two or more institutions;

➢ **Virtual internships with companies** in different countries (Boonen&Bijnens, 2007);

➢ Multi-locality;

➢ Flexibility and **learner-centred approach** (Boonen & Bijnens, 2007).

Flexibility and learner-centred approach

Virtual mobility allows students and teachers **to learn and to teach in a flexible way** depending on **their personal needs**.

In general, virtual mobility offers **short international interactions** with a flexible schedule and starting dates.

Accessibility

Virtual mobility enables **participation of various groups of students**; the learning environment becomes accessible **to remote presence for students** which cannot attend classes on campus: **working students, lifelong learners, female students, students with disabilities.**

Remote places for students can be organized both **at home institution** or beyond their campus and even beyond their geographical region; e.g. **at home**, at **place of employment** etc.

Boonen and Bijnens, 2007

Requirement for virtual mobility

Like all „traditional" real mobility programmes (e.g. Erasmus exchange programmes), virtual mobility programmes should be in line with the principles of Bologna process, which aims to create a European Higher Education Area (EHEA).
The necessary tools as a **credit transfer** and **quality assurance processes** can make virtual mobility programmes more attractive.

Accreditation and credit transfer

The European Credit Transfer System (ECTS) was established in 1989 within the framework of Erasmus programme and used over one thousand European HE institutions.

HE institutions involved sign the learning agreement for short-term study periods (credit mobility); the number of credits which will be awarded by the host institution and which should be recognised by the home institution should be included. The following documents are needed to facilitate credit recognition: course catalogue, transcript of records, certificate.

ECTS system **does not recognize additional skills and competences**, that will be gained from participating in virtual mobility programmes (Boonen and Bijnens, 2007).

ECTS Users' Guide

Virtual mobility accreditation

The challenges that may arise toward credit recognition for virtual mobility programms are **national regulations or internal university rules**.

Some countries in Europe still have national legislation that prevents the recognition of qualifications gained by distance learning (Boonen and Bijnens, 2007); in almost the same situation is with „borderless" or virtual learning.

Quality assurance issues

The challenges that may arise to quality assurance for virtual mobility programmes are also the national education systems and internal university rules.

ICT development is increasing the range of teaching and learning media available for "bordless" or virtual learning, as consequence of this, the concepts for teaching are changed (UNESCO, 2001).

The quality assurance mechanisms that are associated in general with "bordless" or virtual learning should be turned in order **to improve the concepts of quality and quality assurance** toward virtual learning; that can also influence the quality of virtual mobility programs.

Virtual mobility challenges and barriers

For HE institutions the main challenges are **lack of pedagogical and organisational support** for virtual mobility programmes as well as a lack of framework of virtual mobility programmes.

The **national regulations and internal university regulations** should be improved for virtual mobility programmes towards the exchange of credits and accreditation, including the quality assurance.

The technology barriers deal with a lack of necessary equipment and lack of technological know-how by potential users.

For students the main barriers to virtual mobility are a **lack of motivation, unclear framework conditions** for virtual mobility, including rules for ECTS transfer. One of the major problems is also **lack of foreign language skills** needed for virtual mobility.

Initiatives supporting student's mobility in high education

Several virtual mobility projects have already been implemented and various are still running within the European Association of Distance Teaching Universities (EADTU) and other European networks that support virtual mobility initiatives in HE.

EADTU offers "more varied modes of study which can be shorter, time specific and place independent, more personalised and more specialised opportunities for the student. It can provide **different dimensions of mobility**, including the creation of **virtual learning communities**, **virtual projects**, the involvement of many universities simultaneously in a project or course, and the facilitation of international collaborative learning and teaching" (Riuz-Corbella, 2014, according to EADTU, 2013).

https://eadtu.eu/

https://www.openvirtualmobility.eu/

https://www.openeducationeuropa.eu/

www.eden-online.org/

Thank you for your attention!