Part I

Country Reports

e-Learning for Lifelong Learning in Latvia

01

Rita Birzina

Doctor of Pedagogy and Master of Science in Biology,
University of Latvia

Rita Birzina

Rita Birzina works in the Faculty of Biology (FB) of the University of Latvia (UL) as study Methodologist and director of the sub-programm of Biology Teachers of Professional higher education Bachelor study programme "Teacher of Natural Sciences and Information technology", and director of the sub-programm of Secondary School Teacher of Biology of 2nd Level Professional Study programme "Teacher". She is as well a senior researcher in the Institute of Pedagogical Sciences, Faculty of Pedagogy, Psychology and Art, UL and the scientific secretary of its doctoral school "Human Capacity and Life Wide Learning in inclusive contexts of diversity", as well the scientific secretary of Council of Professors of FB, member of Academic Advisory Council of the University of Latvia. Her scientific interests encompass researches on ICT, pedagogy and Natural Sciences with focus on Biology. The theme of her Dissertation is "Humanistic approach within the study of adults' computer literacy". She delivers study courses on Biology Didactics in FB UL and on Informatics as a host reader in JazepsVitols Latvian Academy of Music. She also has certain experience of lecturing in continuing education; in organizing conferences and leading international and local projects, which are connected with teachers'continuing education in ICT and Biology, as well as with the protection and management of nature.

Introduction

This **White Paper on e-Learning for Lifelong Learning in Latvia** is one among a number of white papers dealing with e-Learning and lifelong learning in specific countries in Asia and Europe. The production of these white papers is an Asian-European initiative, with offspring in the e-ASEM network — the research network on the Development of ICT skills, e-Learning and the culture of e-Learning in Lifelong Learning — under the ASEM Education and Research Hub for Lifelong Learning. The aim of the White Paper article is to explore the concept of e-learning and lifelong learning in the context of Latvia taking into account the relevant government policy, regulations and financing issues.

Over the past decade, ICT has developed rapidly, and its role in public education has changed from the acquisition of ICT basic skills to e-skills, from traditional offer of e-resources to the development of interactive e-resources, from the traditional forms of learning to e-learning, etc. The development of Latvian e-learning and lifelong learning concepts is linked with EU guidelines. To build information and knowledge society, they are seen as the integration of ICT applications (learning, teaching and education) on different levels of education: formal, nonformal and informal in this report.

The White Paper Report covers the period from 2005 to 2011, but also earlier resources have been used where relevant. The key documents have been studied and all the relevant sources of information and research in relation to the White Paper topic have been strived to cover, however, there will most probably be other relevant sources that could or should have been included in this report.

The White Paper on e-Learning for Lifelong Learning in Latvia has been produced by senior researcher Rita Birziņa, University of Latvia, Institute of Pedagogical Sciences at the Faculty of Education, Psychology and Art (Chapter 1, 2, 4), head of library and assist. professor Iveta Gudakovska University of Latvia, the Library of the University of Latvia (Chapter 3), professor Irina Maslo, University of Latvia, Institute of Pedagogical Sciences at the Faculty of Education, Psychology and Art (Chapter 5, 5.1.), associated professor Vjačeslavs Šitikovs, Riga Technical University,

1   Educational System in Latvia

1.1 Overview

Basic Facts about the Republic of Latvia

The Republic of Latvia was founded in 1918, was occupied by Soviet Union (1940~ 1941, 1945~1991) and Nazi Germany (1941~1945). On August 21, 1991 Latvia declared the restoration of its de facto independence. Since 2004 Latvia is a member state of the European Union. Latvia is the central country of the Baltic States (Estonia, Latvia and Lithuania) and is located in North-eastern Europe on the east coast of the Baltic Sea. Its geographic coordinates are 57°00'N latitude and 25°00'E longitude. Area: 64.589 sq. km or 24.937 sq. miles. Regions: Kurzeme, Zemgale, Vidzeme, Latgale (Latvia in Brief, 2011).

In the beginning of 2011, the number of people under 29 years of age was 790 815 (35.5 % of the population). The number of children attending general education schools (age 7~19 years) was 216 307 in the school year 2010/11. At the same

year 173 212 pupils of Latvia were enrolled in compulsory basic education (integrated primary and lower secondary). (Latvia in Brief, 2011). Traditionally, there has been a premium for people obtaining higher level education (59% of uppersecondary school graduates continued studies in 2010, (CSB, 2011)) higher education institutions (Latvia. VET in Europe – Country Report, 2011).

The official language of instruction in public sector schools is the state language – Latvian. However, residents of other nationalities have the right to education in other languages in private schools or public sector schools implementing minority education programmes (mostly implemented bilingually, i.e. as Content and Language Integrated Learning – CLIL). In school year 2010/11 bilingually implemented minority education programmes involved instruction in four minority languages – Russian, Polish, Belorussian and Ukrainian. There is also a school basically intended for children of diplomats and foreign business people, implementing a basic education programme in English. Minority languages taught in basic and upper secondary education are Belorussian, Estonian, Lithuanian, Polish, Romany, Russian, Ukrainian and Yiddish.

Ethnic composition – 57.6% Latvian, 29.6% Russian, 4.1% Byelorussian, 2.7% Ukrainian, 2.5% Polish, 1.4% Lithuanian, 2.1% other nationalities. Main religions – Lutheran Protestant, Roman Catholic, Greek Orthodox.

Official language – Latvian (the Baltic language group of the Indo-European languages).

Governance of the Education System

Education system is administered at three levels – national, municipal and institutional. The Parliament (*Saeima*), the Cabinet of Ministers and the Ministry of Education and Science are the main decision-making bodies at a national level. The Ministry of Education and Science is the education policy-making institution that also issues the licenses for opening comprehensive education institutions and sets educational standards along with the teacher training content and procedures (The Education System in Latvia, 2011).

Legislation

Law on Education (1991) was one of the first laws adopted upon the restoration of independence. It introduced a number of substantial changes and oriented education in Latvia in the direction many educational systems are currently developing in Europe and beyond.

A reform of was already under way since the middle of 1980's, which extended the duration of secondary schooling in Latvia from 11 to 12 years. The Law on Education of 1991 provided legal grounds for introduction of compulsory and optional subjects at the upper secondary school level.

The Law of Education 1991 provided autonomy to institutions of higher education. It introduced bachelor and master level as well as professional study programmes instead of the 5-year diploma studies.

The Law of 1991 also opened opportunities to establish private education institutions at all levels. **Law on Higher Education Establishments** was adopted in 1995. It set the relations between the state and higher education institutions and laid down regulations for opening, closing and re-organisation of higher education institutions, institutional governance and staff selection. As well, it introduced a higher education quality assurance system in Latvia as well as the rules for recognition of foreign qualifications.

More legislation in the field of education has been adopted in 1998 and 1999.

The 1998 Law on Education is a frame law replacing the law of 1991. This law contains definitions of all kinds and levels of education and lays down the general principles and competence of governing bodies of different levels in both governance and financing of education.

Law on General Education, which came into force from September 1, 1999, introduces an important new principle in general upper secondary education. Program principle is introduced which replaces the previous system where students were allowed to freely choose seven out of at least twelve subjects at upper secondary school. Now the students are allowed to choose between several upper secondary education programmes offered by the schools and having emphasis on different groups of subjects.
Law on Professional Education, which is in force since September 1, 1999, as well,

brings several important changes to that kind of education, which prepares students to the world of work. The main principles introduced by this law are the following. Firstly, it legislates for steps to be taken in order to ensure that the results of training are labour-market accepted, such as involvement of social partners in formulating occupational standards, drawing up education programmes and assessment of students' skills. Secondly, it harmonises vocational education levels in Latvia with the five-level classification of vocational qualifications, used in the EU. Thirdly, it provides legal basis for upgrading of the existing post-secondary vocational training programmes to first-stage higher professional education programmes. These are aimed at training medium management level professionals (Level four professional qualifications) who are also eligible to continue their studies towards "full" professional higher education diplomas and Level five professional qualifications (Education in Latvia).

1.2 The New Latvian Qualifications Framework

At the end of Year 2011, the changes in the structure of education system in Latvia have been introduced. The previous classification based on the International Standard Classification of Education (ISCED) first developed by UNESCO in 1976 and revised in 1997, has been recommended for improvement now (see the comparison of these education levels in Table 1-1).

The new classification is based on the European Qualifications Framework (EQF). General aim of the European Qualifications Framework (EQF) as a common reference system is to promote the development of lifelong learning principle and foster the international mobility of inhabitants. The EQF offers to Latvia an opportunity to be better understandable for other countries. Simultaneously, also Latvian inhabitants may understand better Latvian and other national education systems, including qualifications referenced to the EQF.

Table 1-1 Correspondence between the Education Levels of ISCED 1997 and Proposed ISCED 2011 Based on Truong, 2011

ISCED 1997	Proposed ISCED 2011
	0 Early childhood education* Early childhood educational development* (designed for children aged under 3 years)
0 Pre-primary (designed for children aged 3 years and above)	Pre-primary (designed for children aged 3 years and above)
1 Primary (or 1st stage of basic education)**	1 Primary
2 Lower secondary (or second stage of basic education)**	2 Lower secondary
3 Upper secondary	3 Upper secondary
4 Post-secondary non-tertiary	4 Post-secondary non-tertiary
5 First stage of tertiary	5 Short-cycle tertiary* 6 Bachelor or equivalent* 7 Master or equivalent*
6 Second stage of tertiary	8 Doctoral or equivalent*

* New in proposed ISCED 2011.
** ISCED 2011 no longer uses the term 'basic education' in the definition of level.

As result of referencing process, 8-level Latvian Qualifications Framework (LQF) has been established. The developed level descriptors are based on learning outcomes, and formal education qualifications are linked with these levels. The level descriptors have been elaborated regarding national education and occupational standards, as well as the EQF level descriptors. The LQF comprises formal higher, vocational and general education sectors. The placement of Latvian formal education qualifications on eight LQF/EQF levels is illustrated in the Table 1-2. Prior to referencing the existing qualifications, level descriptors have to be developed (New LQF, 2011).

The referencing procedure should cover all education stages and forms, all professional qualification levels, including qualifications acquired through the validation of professional competence obtained outside formal education, or craftsman qual-

ifications and journeyman qualifications (Referencing of the Latvian Education System to the European Qualifications Framework for Lifelong Learning and the Qualifications Framework for the European Higher Education Area, 2011).

Table 1-2 The Placement of the Latvian Formal Qualifications in the LQF and EQF

Latvian education documents (qualifications)	LQF and EQF level
Certificate of general basic education, statement of records (for students in special educational programmes for students with severe mental development disorders or several severe development disorders)	I
Certificate of general basic education, statement of records (for students in special educational programmes for students with mental development disorders	II
Certificate of general basic education, statement of records, certificate Certificate of vocational basic education, statement of records	III
Certificate of general secondary education, statement of records, certificate Certificate of vocational education, statement of records Diploma of vocational secondary education, statement of records	IV
Diploma of first level professional higher education (1st level professional higher (college) education. The length of full-time studies 2-3 years)	V
Bachelor's diploma Professional Bachelor's diploma Diploma of professional higher education, diploma of higher professional qualification (2nd level professional higher education, the length of full-time studies – at least 4 years)	VI
Master's diploma Professional Master's diploma Diploma of professional higher education, diploma of higher education, diploma of higher professional qualification (2nd level professional higher education, the total length of full-time studies – at least 5 years)	VII
Doctor's diploma	VIII

1.3 The Structure of Education System in Latvia

Based on new 8-level Latvian Qualifications Framework education system in Latvia has got the following structure (Figure 1-1).
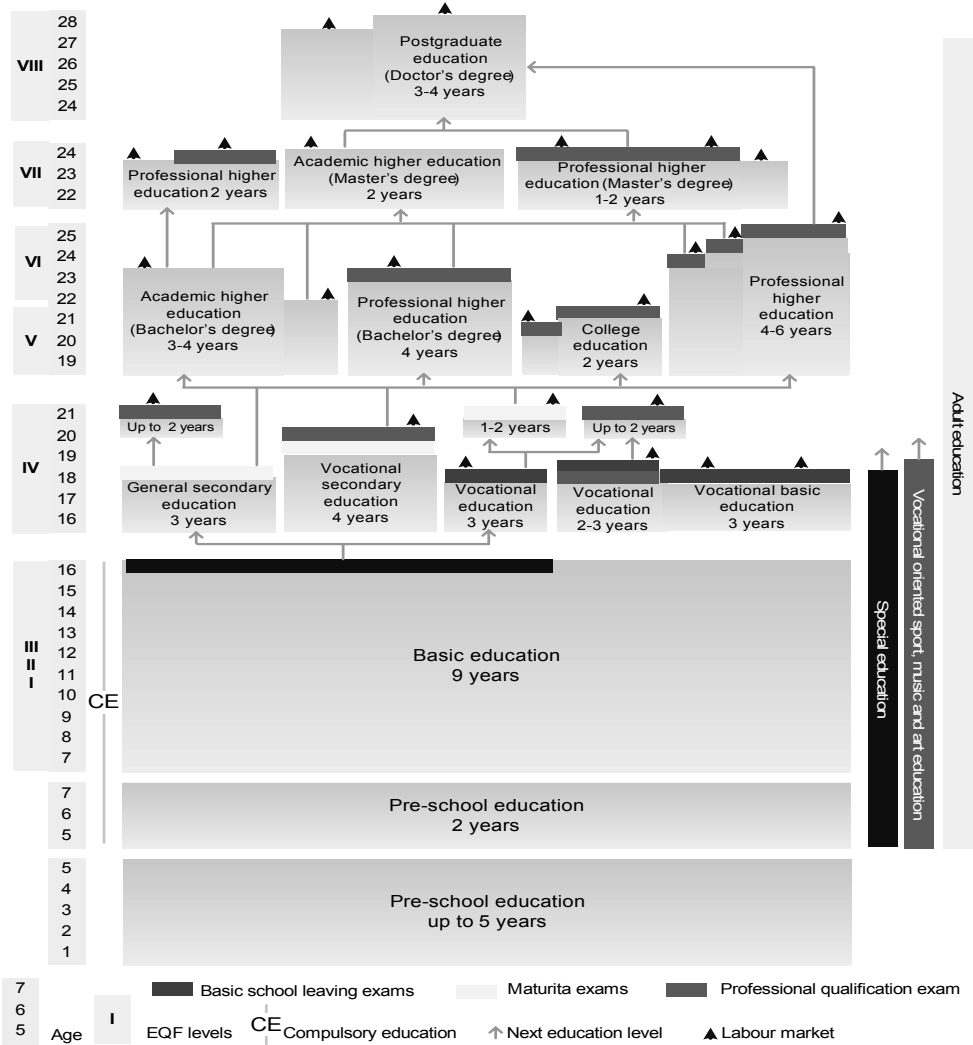

Figure 1-1 The Structure of Educational System of Latvia (Based on Referencing of the Latvian Education System to the European Qualifications Framework for Lifelong Learning and the Qualifications Framework for the European Higher Education Area, 2011)

Pre-school (Pre-primary) Education

In Latvia children are prepared for school at pre-school educational establishments and pre-school education groups at schools registered in the Register of Educational Establishments and operating in compliance to licensed pre-school education programs. 5–7 year old children have to participate in pre-school programmes provided by general education establishments or kindergartens as a part of the compulsory basic education. The objective of the pre-school education is to foster general development of children and their readiness to enter primary stage of the basic education (The Education System in Latvia, 2011).

Pre-school education program is intended for children up to seven years of age. Depending upon a child's health condition and the level of psychological maturity, a child may continue studies in a pre-school education program for another year. This decision is taken considering the parents' wishes and conclusion of doctors' commission. A stipulation of the Law on Education providing for mandatory pre-school education of five and six years old children has entered into force as from September 1, 2002 (Pre-school Education, 2011).

Pre-primary education (*pirmsskolas izglītība*) for children less than seven years of age is a part of general education. Pre-primary education for 5 – 6 year olds is compulsory. In September 2010, 75 % of all children fewer than seven years of age participated in pre-primary education programmes in Latvian and 25 % in Russian, Polish, or other languages (National System Overview, 2011).

At present, the pilot project has been launched to explore the possibility to start schooling at the age of 6. "The Strategy of Social Security Network" issued by the Cabinet of Ministers on September 8, 2009, has put forward the aim in education – to guarantee the contents of education according to the children's age group peculiarities and carry out all preparatory works to start the primary education at the age of 6. In order to reach this aim, National Centre for Education carried out the pilot project "The Implementation of Curriculum for 6 Year Olds" from June 1, 2010 till July 31, 2011 (the Regulation No. 100 (issued by the Ministry of Education and Science of Republic of Latvia on March 2, 2010) the Approval of the Action Plan on the "Content Improvement of the Pre-school and Basic Education in 2010

and 2011" and the Regulation No. 159 (issued by the National Centre for Education on May 28, 2010) "The Pilot project by the National Centre for Education Project "The Improvement of the Samples of the Standards and Curriculum of School Subjects" of the Implementation of Curriculum for 6 Year Olds").

The pilot project was implemented in 23 groups of 22 pilot education institutions in Latvia (at 12 pre-school education institutions and 10 schools) (Pilotprojekts, 2010 – 2011).

Basic Education

Nine-year single structure basic education (primary and lower secondary education according to ISCED, Table 1-3) is compulsory for all children from the age of 7. The curriculum is determined by the national basic education standard. The Ministry of Education and Science supervises and determines the content of the final national examinations. Pupils, who have received evaluation in all subjects of the compulsory education curriculum, national tests and examinations, receive a Certificate of the basic education (*apliecība par pamatizglītību*) and a statement of records (*sekmju izraksts*) that qualify them and serve as a screening criterion for admission for further education and training in secondary level educational programmes. In case a pupil has not received evaluation in any of the subjects or centralized national tests and examinations, he/she receives a school report (*liecība*) giving the right to continue

Table 1-3 Types of Education and Institutions of Basic Education* (Pamatizglītība)

Types of education and institutions	Age	Grade	ISCED	LQF
Sākumskola (first stage of basic education)	7-11/13	1-4/6	1	I
Pamatskola (full basic education)	7-16	1-9	1, 2	II
Vidusskola (full basic education, ISCED 1+ ISCED 2); these schools implement not only basic education, but also upper secondary education (ISCED 3)	7-16	1-9	1, 2, 3	II
Ģimnāzija (ISCED 2 – or the last three years of basic education)	14-16	7-9	2	II

education and training in basic vocational education programmes (The Education System in Latvia, 2011).

Basic education (*Pamatizglītība*) is compulsory and normally lasts until the age of 16. It is organised as a single structure: ISCED level 1 is immediately followed by ISCED level 2 without a structural break.

Most often the first and second stage of basic education may be acquired in the same institution, e.g. in pamatskola or vidusskola.

Unfinished basic education may also be completed in some vocational education institutions (*Profesionālās izglītības iestāde*). In this case pupils in any age after 15, but not later than 18 are given a possibility to receive basic education certificate parallel to starting a vocational pathway.

The pupils who have not obtained basic education can enter the second year of evening shift schools offering the programme of basic education at any age.

The acquisition of basic education is compulsory; it starts in the calendar year when a child turns seven. The compulsory basic education programme content is determined by the state basic education standard. Educatees, upon the acquisition of the general basic education programme, receive a certificate attesting general basic education, and a list of school results.

Anyone, without any age limits, has the right to acquire secondary education programmes, if he/she has a certificate attesting basic education. There are four-direction general secondary education programmes: comprehensive; humanities and social sciences; mathematics, natural sciences and technology; and professionally-oriented ones. The compulsory general secondary education programme content is determined by the state general secondary education standard. Educatees, upon the acquisition of the general secondary education programme, receive a certificate attesting general secondary education, and a list of school results.

A school year is usually 35 weeks long – from 1 September to 31 May (except for educatees of Grades 9 and 12). Criteria and procedures for the evaluation of the acquired education are set in the state education standards. Each general education institution can implement one or more licensed education programmes, including education programmes for ethnic minorities. Education can be acquired in several forms,

usually by attending full-time schools (day and evening shift), but there are also extramural education programmes. An individual can also choose to become an external student.

The basic education in Latvia is implemented according to unified basic education programme. There are only some specifics and differences in the basic education programmes of the minority schools. Schoolchildren are also offered interest-related education; they can participate in after-school activities and free time interest groups at school or youth interest centres. The areas of interest education are: dances, music, visual arts, theatre, technical creativity, folklore, environment education.

The most popular types of interest education in Latvia are choir singing and dancing in dance groups.

Special types of general education are: special education, social correction and pedagogical correction.

Special Needs Education

Special schools or special education classes within general education schools provide education for children with special needs (Table 1-4) that correspond to their individual health condition. The structure of special education is very similar to that of the mainstream education providing opportunities for persons with special needs to attain knowledge in general education subjects as well as general skills with strong emphasis on the applicability of the acquired knowledge and skills in order to facilitate social inclusion.

Table 1-4 Pupils with Special Needs, Integrated in General Education Institutions (Source: MES)

Study year	Acquiring general education programmes	Acquiring special education programmes	Acquiring social correction programmes
2008/2009	769	821	68
2009/2010	113	462	64

Vocation Oriented Education

Vocation oriented education in arts and music is voluntary and is meant for a person's individual educational needs and wishes.

The Law of Vocational Education determines the content and implementation procedure of the vocation oriented education programme. On completing the programme, the graduators pass final exam and receive a list of school results. This document is not the evidence of the qualification, but it provides certain advantages to start studies in the specific professional and higher education institutions.

Secondary Education

There are two types of secondary education programmes: general secondary and vocational secondary education and training programmes.

The compulsory curriculum of **3-year general secondary schools** (vidusskola, ģimnāzija) is determined by the National Standard in the following profiles: (1) general comprehensive, (2) humanitarian/social, (3) mathematics/natural science/technical, (4) vocational/professional (arts, music, business, sports). All educational programmes must contain 8 compulsory and 3 – 6 selected subjects according to the profile. Schools can offer some optional subjects that take no more than 10 – 15% of the total study time or major in any of the compulsory subjects instead. General secondary education programmes, irrespective of the profile, may be combined with a national minority educational programme by inclusion of the minority's national language and subjects related to national identity and its integration into the Latvian society.

In the school year 2007/2008 – 2009/2010 Latvia's comprehensive day schools have been attended (Table 1-5) by 250 941 – 226 034 Latvian, Russian, Ukrainian,

Table 1-5 General Education in Figures (Fact Sheet on General Education, 2011)

Study year	Pupils	Teachers	Educational institutions
2007/2008	250 941	25 567	958
2008/2009	236 223 (−14 718)	25 751 (+184)	948 (−10)
2009/2010	226 034 (−10 189)	22 629 (−3 122)	846 (−102)

Romany, Jewish, Estonian, Lithuanian, Polish, German and other nationality children and youth (General Education, 2011; Fact Sheet on General Education, 2011).

Upon graduation students have to take 4 centralized national examinations, the content and procedure of which are determined by the Ministry of Education and Science and approved by the Cabinet of Ministers. A Certificate of the secondary education (*atestāts par vispārējo vidējo izglītību*) is awarded to all students, who have received a positive assessment in all subjects according to the chosen profile and the national examinations and a certificate of the passed centralized exams and their scores, providing the right to continue education in any higher-level education programme. If the student has not received an evaluation in one or more subjects or national examination, he/she receives a school report (*liecība*).

Different **vocational education and training programmes** are developed and offered for all branches of the national economy of Latvia. The National Standard of the Vocational Education and the Occupational Standards determine the curriculum/content of vocational education programmes.

The vocational education programmes are provided by vocational secondary schools (vocational secondary education programmes) and vocational schools (basic vocational and vocational education programmes). The Vocational Education Law (revised in 2001) stipulates that vocational education programmes are classified as follows:

- Vocational basic education programmes last for 3 years and are foreseen for students without a Certificate of General Basic Education (after completion of at least 7 grades of basic education, but they must be at least 15 years old); graduates receive a Certificate of Vocational Basic Education and professional qualification Level 1;

- Vocational education programmes last for 2 – 3 years for students with basic education or persons at least 15 years old, and graduates receive a Certificate of Vocational Education and professional qualification Level 2; they may continue in 2-year vocational secondary education programmes;

- Vocational secondary educational programmes take 4 years and are open to students who have completed compulsory basic education; graduates receive

a Diploma of Vocational Secondary Education and professional qualification Level 3;

- Post-secondary non-tertiary vocational education programmes (ISCED 4B) are to be implemented after graduating from general secondary programmes. They are focused towards mastering purely professional skills and knowledge;
- First level professional higher education (college education) programmes;
- Second level professional higher education (university education) programmes (Latvia. VET in Europe – Country Report, 2011).

Table 1-6 demonstrates the number of students and teachers, and educational institutions in vocational education.

Table 1-6 Vocational Education in Figures (Fact Sheet on Vocational Education, 2011)

Study year	Students	Teachers	Educational institutions**
2007/2008	38 876	4 687*	104
2008/2009	38 819	4 918	104
2009/2010	36 660	4 250	96

 * The data for 2007/2008 study year do not contain the number of teachers working in private vocational schools.
** inter alia, colleges offering secondary vocational educational opportunities.

Depending on the type of vocational education programme, all students who have passed the final subject and qualification exams are awarded a diploma or certificate: a Diploma of Vocational Secondary Education (*diploms par profesionālo vidējo izglītību*), a Certificate of Vocational Basic Education and Training (*atestāts par arodizglītību*), a Certificate of Vocational Initial Education and Training (*apliecība par profesionālo pamatizglītību*). Only holders of a Diploma of Vocational Secondary Education are eligible to proceed with tertiary education.

Post-secondary Non-tertiary Vocational Education

Vocational continuing or in-service training programmes can be acquired also after graduating general secondary or vocational education and training institutions (duration 1 – 2 years) or in vocational upgrading/ development programmes (duration not less than 160 study hours, which may be considered as a part of the qualification). These programmes are focused towards mastering purely professional skills and knowledge in line with the requirements of the respective qualification level. The study process, assessment of achievements are organized in a similar manner as it is done in vocational secondary education and training programmes.

The vocational education is undergoing the reorganisation that will result in levelled vocational education institutions. By optimising the system of vocational education institutions, the competence centres of vocational education, specialised vocational education institutions and integrated education institutions or the branches of vocational schools will be formed (Profesionālās izglītības iestāžu tīkla optimizācijas pamatnostādnes 2010. – 2015. gadam, 2009). There are 31 general education evening schools, a network of 58 vocational education institutions, and 58 higher education institutions (including 26 colleges) available and accommodating adults' education needs. The following forms of education are available: full-time, extramural education; extramural distance learning (also for general education), and self-directed education (Country Report on the Action Plan on Adult Learning: Latvia, 2011).

Tertiary Education

The admission procedure is not centralised: each higher education institution has its own admissions board and criteria. From Year 2004 the entrance examinations are replaced by the results of the national centralised secondary education examinations. The system of higher education in Latvia is binary since the Law on Education Establishments sets a difference between academic and professional higher education, but it is not strictly institutionalised. Universities and other institutions of higher education mostly run both academic and professional programmes. There can be distinguished three groups of programmes: academic programmes leading to academic

degrees, professional programmes based upon a standard of the first academic degree thus making graduates eligible for further academic studies and the applied professional programmes oriented towards higher professional qualifications but not providing background for direct admission to further academic studies.

There are 37 public institutions of higher education and 21 higher education institutions established by legal bodies to offer the studies on Bachelor, Master and Doctoral level (Table 1-7).

Table 1-7 Higher Education in Figures (Fact Sheet on Higher Education, 2011)

Study year	Students	Pedagogical Staff	Educational Institutions	Programmes
2007/2008	127 050	5 454	58	889
2008/2009	125 350	5 804	58	919
2009/2010	112 555	5 360	54	920

Students (study year 2009/2010)

Type of higher education institution	Basic studies	Master programme	Doctoral studies	Total
Public Institutions of higher education	62 855	12 794	2 044	77 693
Higher education institutions established by legal bodies	31 182	3 572	108	34 862
Total	94 037	16 366	2 152	112 555

Academic higher education programmes are based upon fundamental and/or applied science; they usually comprise a thesis at the end of each stage and lead to a Bachelor's degree (*Bakalaurs*) and Master's degree (*Maģistrs*). Duration of Bachelor's programmes may be 3 or 4 years at different institutions. The 3-4-year Bachelor's degree is considered as a complete academic qualification. Master's degree is awarded after the second stage of academic education and requires at least 5 years

of university studies.

The Law on Higher Education Institutions and the Law on Vocational Education and Training stipulate a two level **professional higher education** – the first level of professional higher education or college education (2 – 3 years) leading to professional qualification Level 4 (*diploms par pirmā līmeņa profesionālo augstāko izglītību*), and second level of professional higher education leading to qualification Level 5 (2 – 3 years). Having mastered a programme of professional higher education, students are awarded a professional qualification or a professional Bachelor's degree that can be followed by a further 1 – 2 years of professional Master's studies. The Master's degree (*Maģistrs*) of higher professional education is awarded if the total duration of studies is at least five years.

There can be the so-called "short" second level professional higher education study programmes (1 – 2 years), where qualification is obtained on the basis of the previously acquired first level professional higher education or academic Bachelor's degree. In total the duration of professional qualification Level 5 study programmes is not less than 4 years after secondary education and not less than 2 years after college education.

Postgraduate Education

Master's degree or the equivalent (graduates of 5 – 6 year professional higher education programmes in Law and Medicine can continue education at postgraduate level directly) is required for admission to doctoral studies (Ph.D.). Doctoral studies last 3 – 4 full-time years. They include advanced studies of the subject in a relevant study programme (or an equivalent amount of independent research while working at a university, research institution, etc.) and a scientific research towards doctoral thesis. Publications in internationally quoted scientific journals are required before public defence of the doctoral thesis as an integral part of a study programme. The Council of Science appoints Promotion Council and sets the procedures for award of Doctor's degrees.

Tuition Fee

Fees for pre-school education, basic and secondary education at schools established by the state or by local governments are covered from the state budget or from the local governments' budgets. Private education institutions determine their own fees. In higher education programmes the state covers tuition fees for a certain number of students' places, according to the State Procurement in the respective academic year. Each higher education institution may set a tuition fee for the rest of students' places. All students are entitled to a state credit for their studies in any higher education programme.

Foreigners or non-citizens pay for their education in accordance with the agreement concluded with the respective educational establishment. In cases when foreign citizens study in Latvia under an exchange programme and an equivalent number of Latvian students study abroad, the foreigners' studies in Latvia are financed from the budget resources of the Republic of Latvia allocated to the respective institution of higher education. The tuition fee for the citizens of European Union countries shall be determined and covered according to the same procedure as for the citizens and permanent residents of the Republic of Latvia.

Expenditure on education, total: When calculating the expenditure on education internationally comparable methodology of UNESCO, OECD and Eurostat (UOE) is used. State expenditure on education as % of gross domestic product: Data source: http://epp.eurostat.ec.europa.eu/portal/page/portal/education/data/database.

Table 1-8 Expenditure on Education (mln lats) Source: Central Statistical Bureau (CSB) of Latvia

	2005	2006	2007	2008
Expenditure on education, total	593.6	711	919.9	1105.8
State expenditure on education	458	566.3	739.3	925.1
Private expenditure on education	126.3	134.8	146.2	147.2
Foreign financial sources	9.3	9.9	34.3	33.5
State expenditure on education as % of gross domestic product	5.06	5.07	5	5.7

Grading System

Educational achievements are assessed in a ten-point system: 10 with distinction (*izcili*), 9 excellent (*teicami*), 8 very good (*ļoti labi*), 7 good (*labi*), 6 almost good (*gandrīz labi*), 5 satisfactory (*viduvēji*), 4 almost satisfactory (*gandrīz viduvēji*), 3 weak (*vāji*) 2 very weak (*ļoti vāji*), 1 very very weak (*ļoti, ļoti vāji*).

1.4 Adult Education

In Latvian adult education system, the adult is defined as a person who has reached the age of 15 years, "that after a break continues general or professional education (formal, informal)" (Basic Guidelines of Lifelong Learning Policy for 2007−2013, 2007). Adult education includes all types of formal, non-formal and informal education including further and interest education, professional upgrading and in-service training. It is provided to satisfy needs in lifelong education process to support personal development and competitiveness in the labour market regardless of person's age and previous education.

Adult learning in Latvia has long and stable traditions. However, it attained a nationwide momentum in the mid-1990s when different separate educational societies, groups and undertakings across the country were consolidated in an attempt to create a monitoring system in the Latvian Adult Education Association − LAEA (1993 − *Latvijas Pieaugušo izglītības apvienība*) enabling to concentrate both the intellectual, human and financial resources available for adult education. Later LAEA separated from Ministry of Education and Science and existed as non-governmental organisation with legal and physical persons. Serious obstacle for the development of Latvian adult education is the lack of the law on adult education. The Law of Education delegates the responsibility for the adult education to local authorities. The concept of Lifelong Education was formulated in 2000, giving a strong impetus to adult learning and education (ALE) however, this term has not been introduced in the Law of Education yet. The concept of ALE was included in the general concept of educa-

tion, as one of the stages of a lifelong process. Thus, adult learning is part of an all-age-groups-inclusive approach that covers all the stages in human life from early childhood to late years of adulthood.

The shift in approach was fundamental and affected all the levels of educational system in Latvia adding to them a new, life-long perspective. The adult education development policy has been designed according to the education development guidelines set by the European and Latvian policy planning documents such as the Lisbon Strategy, Bologna Process, European Commission Memorandum on Lifelong Learning, UNESCO programme "Education for All", European Commission work programme "Education and Training 2010", European initiative "i2010 – European Information Society for Growth and Employment", EU Basic Strategy regarding gender equality, long-term conceptual document "The Growth Model of Latvia: People First", "Long-term Economic Development Strategy", "Joint Economic Strategy", Development Guidelines of Sustainable Development of Latvia", Guidelines for Policy Planning", Latvian National Action Plan for Employment", "Guidelines of Sport Policy for Years 2004–2009" and "Regional Development Guidelines".

Priority goals for ALE: (1) availability; (2) quality; (3) cooperation and shared responsibility. Each of these goals contributes to better access to education for all, irrespective of previous educational level, economical, geographical, social, ethnic, age, gender or other factors.

According to the established educational system in Latvia, the supervising authority for ALE is the Ministry of Education and Science (MES). The system of ALE, nonetheless extends over to other sectors, as envisaged by the Education Law (Article 17), stating that "regional local governments shall organise adult education". In fact ALE functions at a much broader scale; it covers vocational, in-service training for the business or sector needs. Large state owned companies have Learning centres (e.g., The National Bank, Latvian Mobile Telephone, Lattelecom, the Latvian Railway, the Latvian Postal service, big market centres, etc.). The specific needs and requirements of individuals are taken care of by a network of private and non-governmental educational institutions and undertakings that are run on private funding, and some of them are profit oriented (Šiliņa, 2008).

The leading state administration and responsible institution in the field of lifelong learning policy is the Ministry of Education and Science. In cooperation with its agencies it also develops, administers and supervises science, sports, youth and the Latvian language policy.

Responsibility for promoting adult learning within the framework of the Lifelong Learning Strategy is shared by the state (Policy Coordination Department of the Ministry of Education and Science provides support for developing the lifelong learning policy), local governments and NGOs. Private companies also provide learning opportunities for adults in Latvia.

In addition to the Ministry of Education and Science, state support for adult learning is represented by eight national ministries (Ministry of Welfare, Ministry of Culture, Ministry of Agriculture, Ministry of Health, Ministry of the Environmental Protection and Regional Development, Ministry of Justice, Ministry of Economics and Ministry of Interior). This model is beneficial for ensuring the responsiveness of the adult education system to the needs of various target groups in different sectors. The main funds for adult learning are distributed by the Ministry of Education and Science and the Ministry of Welfare (Country Report on the Action Plan on Adult Learning: Latvia, 2011)

According to the Education Law (1998), adult education may be funded from the state and local government budget, employers' resources, students' resources, donations and other sources. Some local governments allocate a fixed percentage from the budget to adult education. Important source of funding is EU, Swiss and Norwegian financial assistance instruments, including structural funds and the EU Lifelong Learning Programme 2007-2013, which through various projects opened more learning opportunities for adults (Latvia. VET in Europe – Country Report, 2011).

The system of the recognition of informal/non-formal learning was established in the beginning of 2011. The latest amendments (July 2010) in the Vocational Education Law (1999) included a paragraph stating that validation of professional competence acquired outside the formal education system is carried out according to relevant occupational standards; validation may be assigned to accredited education

establishment or examination centre; procedure how the validation is conducted is determined by the Cabinet of Ministers. In February 2011 the CoM Regulations "Procedure how professional competence obtained outside formal education system is assessed" (*Kārtība, kādā novērtē ārpus formālās izglītības sistēmas apgūto profesionālo kompetenci*) was approved stipulating the procedure how professional competence (except regulated professions) that corresponds to the Latvian professional qualification Level 1 – 3, i.e. the EQF Level 3 – 4, obtained outside formal education is assessed (Latvia. VET in Europe – Country Report, 2011).

2. Concepts of Lifelong Learning and E-Learning

2.1 Concepts of Lifelong Learning

The Basic Guidelines for Lifelong Learning Policy 2007 – 2013 outline the vision for 2013 in terms of the needs of different target groups. The main objectives are: to provide availability of lifelong learning to all people in Latvia; to create qualitative education possibilities for adults; to form harmonised system of laws and regulations and efficient resource administration; to develop a flexible lifelong learning administrative system; to develop lifelong learning action programme for the state and the regions.

Lifelong learning in Latvia has developed as adult education. Its historical forms have been knowledge societies and folk high schools that have transformed into adult education centres. The concept of Lifelong Education was formulated in 2000, giving a strong impetus to ALE. The concept of adult learning and education was included in the general concept of education, as one of the stages of a lifelong process. Thus

adult learning is part of an all-age-groups-inclusive approach that covers all the stages in human life from early childhood to late years of adulthood (Šiliņa, 2008). Simultaneously with the development of the concept of Lifelong Education in Europe (a humanistic project in the 1970s and an economic project in the 1990s, Holm, 2011), the perception of this term has changed also in Latvia. Besides the existing term of "adult education", the terms "further education" (*tālākizglītība*); "continuing education" (*turpmākizglītība, nepārtrauktā izglītība*); "life-long education, life-long learning" (*mūžizglītība*) were introduced in practice (Koķe, 2000). The understanding of the term of lifelong education in Latvia reflects all the highlights mentioned by Arne Carlsen (2011:21): "Lifelong learning is learning for active citizenship, for social inclusion, personal fulfilment and employability. The humanistic values as a basis for learning comprise the right to learn, peace, democracy, sustainability, gender equity, tolerance, respect for others and intercultural understanding. Lifelong learning is also life-wide. It includes formal, non-formal and informal learning. It includes continuing education, training within vocational education and workplace learning".

The document "Lifelong Learning Policy for 2007‒2013" (2009:4) defines lifelong learning as "an education process during the whole life of an individual, that is based on changing needs to acquire education, skills, experience in order to increase or change their qualification in accordance with the demands of the labour market and own interests and needs. Lifelong learning comprises non-formal learning and formal education, develops inborn abilities together with new competences" (The Law of Education defines adult education (*pieaugušo izglītība*) as a multi-dimensional educational process of persons, which, ensures the development of the individual and his or her ability to compete in the employment market, during the course of a lifetime of a person (Education Law, 1998 ‒ 2011). The following terms are used:

- Self-education (*pašizglītība*) – education acquired outside an educational institution;
- Interest-related education (*interešu izglītība*) – realisation of the individual educational needs and desires of a person regardless of age and previously acquired education;

- Further education (*tālākizglītība*) – continuation of previously acquired education and professional skill improvement in conformity with the requirements of the specific profession;

- Informal education (*neformālā izglītība*) – educational activities in conformity with interests and demand organised outside of formal education. In Latvia informal learning is understood by the concept of everyday learning (*lifelong earning guidelines*). The Commission of the Terminology in Latvia has recognised the use of both terms (*informal learning and everyday learning*) as equivalent. However, everyday learning still is more associated with incidental learning and socialisation where conscious learning does not belong to. Thus, it would have been conceptually more appropriate to use the term "informal learning" as it consists of 3 parts: self-directed learning, incidental learning and socialisation;

- Everyday learning (*ikdienas mācīšanās*) – a meaningful process of experience gaining in every life situation (Lifelong Learning Policy for 2007–2013, 2009:4);

- Non-formal education (*neformālā izglītība*) – besides formal education an organised educating activity that compliments formal education by ensuring the acquiring of the skills and abilities and development of evaluation system necessary for a socially and economically active state citizen to be able to integrate in the society and the labour market) (Lifelong Learning Policy for 2007–2013, 2009:5);

- Second chance education (*otrās iespējas izglītība*) – a repeated possibility to acquire education for those that due to some reasons at the appropriate age have not reached a certain education degree (Lifelong Learning Policy for 2007–2013, 2009:5).

It leads to the conclusion that in Latvia LLL is connected with "the promotion of individuals' personal growth, as well as self-development in every stage, and sphere during the whole life, thus creating preconditions for the development of inhabitants' initiative, adaptation abilities and achieving the goals of social integration, employment, and active civil participation" (Šiliņa, 2008:5).

The concept of LLL in Latvia combines humanistic and economical approach – the development of a human being as a personality in terms of professional development and requalification integrating the perspectives of formal, non-formal and informal learning, as well as innovations and entrepreneurship.

According to the "Sustainable Development Strategy of Latvia until 2030" (Saeima of the Republic of Latvia, 2010), concurrently with accumulation of specific competences and qualifications, which determine the ability of people to integrate in the labour market and to form successful professional career, education is also the development process of personal talents, emotional and social intelligence and personality. Due to this reason the quality, accessibility and content of education at all levels of education and age groups – from pre-school to adult education – is a development possibility of Latvia and the precondition for increase in the value of human capital (p. 34) Thus, the main emphasis is "by enlivening the culture of lifelong education in the society, the ability of each person, particularly young person, to see the necessity and to use the possibilities for education and career-making throughout life should be developed. Taking into account that human capital in European countries mainly occurs and develops in employment process, upon individuals improving their knowledge in the system of lifelong education and at work place, training of adults and more active involvement of formal education institutions and employers in provision of informal education offer is an important task also for Latvia" (147) (p. 36).

2.2 Concepts of E-Learning

The concept of E-learning defines various forms of learning through ICT by different terms, such as 'distance education', 'web-based learning', 'computer-assisted instruction', 'computer-mediated communication', 'virtual classrooms', 'digital collaboration', 'online instruction', 'electronic communication', 'computer-driven interactive communication' etc. There are also several different definitions of e-learning. Some

identify e-learning in a very narrow way as "the learning process created by inter-action with digitally delivered content, services and support", other definitions cover very wide areas of application, for example, "the process of formal and informal learning and training activities, processes, communities and events via the use of all electronic media like Internet, intranet, extranet, CD-ROM, video tape, TV, cell phones, personal organizers et cetera" (Guide to E-learning Solutions). Some include Knowledge Management as a form of e-learning. It took a while for the right term to come about, circa 1995 it was all called 'Internet-based Training', then 'Web based Training' (to clarify that delivery could be on the Inter- or Intra-net), then 'Online Learning' and finally e-learning, adopting the vague use of "e-" during the dot com boom. The "e-" breakthrough enabled the industry to raise hundreds of millions from venture capitalists who would invest in any industry that started with this magic letter.

European Commission (Communication from the Commission, 2000) defines "e-learning as the use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services" (European Commission 2008a:6) as well as remote exchanges and collaboration. It means that e-learning is NOT a database where the student will find all information. Learning is always a process together with other students, using printed and interactive material and with a tutor available.

The concept of e-Learning in Latvia is used as a general term referring to all forms of teaching and learning, where information and communication technology is involved. The terms: Distance education, Blended learning (combination of distance and face to face learning), Online learning, Virtual learning, Web-based learning are used in Latvia.

Distance learning or e-learning became topical in Latvia in the 90ties of the 20th century. In accordance with the Law of Education in the Republic of Latvia, dis-tance learning is defined as type of the extramural education "*distance education – an extramural method for acquiring education, which is characterised by spe-cially structured educational materials, individual speed of learning, specially or-ganised evaluation of educational achievement, as well as utilisation of various*

technical and electronic means of communication" (Education Law, 1999 – 2011). The document "Lifelong Learning Policy for 2007–2013" (2009:5) defines distance learning as a specially planned, organised independent learning supported by advisers and consultants. It is a form of education in which specific learning materials and methodology are used. Every person can learn at convenience for his/her time, place and tempo. Distance learning basically is planned for adults that are motivated and able to organise themselves for active learning. There is no uniform state system to monitor and coordinate e-learning in Latvia. However, the distance learning has declared itself as innovative adult education form. This is novelty for the education system in Latvia in general and especially in adult education because it allows combining studies with work. By setting the aim to improve the competences of adults, the providers of distance learning can raise their competitiveness among the other suppliers of adult education (Kristovska, 2005).

As it is specified in the Latvian National Development Plan for (NDP) 2007 – 2013, the aim of Latvia is to build a knowledge-based economy and improve the quality of life, where everyone has the ability to use information and communication technologies (ICT) and opportunities of the content to achieve this aim. Implementing an information society, it is necessary to create equal opportunities to use ICT and e-services for everyone, reduce the digital gap (the difference) and improve opportunities and quality of life for those citizens who do not use modern technologies. To introduce and develop the information society, it is necessary to achieve several objectives:

- every Latvian citizen has the opportunities and skills to use ICT and available e-services;
- citizens and business have access to rich variety of services and content that will make life easier and will allow to develop fully;
- active use of ICT for innovations in business, creating value added growth.

The main emphasis is given to the development of such skills as information literacy (*informācijpratība*) and computer literacy (*datorpratība*) in combination with (European Computer Driving Licence) ECDL.

ICT has got a special role in the accessibility, processing, transmission and use of information. The skills to use modern ICT allow getting access to their resources and empower to be more efficient in one's profession. Although ICT tools get simpler and more user-friendly, considerable skills are necessary for completing even the most ordinary functions. A set of such skills is called computer literacy where the most important thing is to know how to work on the computer and use the resources of the computer and ICT tools in the professional field. At the same time computer literacy does not mean general programming skills. ECDL as the document of EU computer literacy that confirms the universal computer literacy level to perform in any profession is getting significant in the open EU labour market (IUMEPL, 2006). In the document "Lifelong Learning Policy for 2007−2013" (2009:4) e-education is defined as a specially organised study course in which the following information and communication technologies are used in a methodically grounded way − tele-communication and computer networks, multimedia CD-ROM, as well as radio and TV broadcasting, audio/video records, interactive TV and other technologies.

The chapter "Change of Paradigm in Education (2010)"of the document "Sustainable Development Strategy of Latvia until 2030" published by the Saeima of the Republic of Latvia mentions such terms as 'e-schools' and 'e-lessons': (163) E-lessons. In addition to the usual study process, educational institutions should create distance learning programmes, using e-technologies. Institutions of higher education may cre-ate programmes, which mainly take place in the e-environment. In schools, teachers may use the e-environment as an addition to lessons at school".

2.3 E-learning for Lifelong Learning

The introduction of ICT both as a learning environment and a means for learning has transformed traditional notions of learning. The use of ICT and its impact on active learning styles in information-seeking, analysis, synthesis, interactive and hori-zontal communication (UNESCO, 2001) is important in LLL. The European

Reference Framework of Key Competences (2006) has defined key competences for lifelong learning: (1) Communication in the mother tongue; (2) Communication in foreign languages; (3) Mathematical competence and basic competences in science and technology; (4) Digital competence; (5) Learning to learn; (6) Social and civic competences; (7) Sense of initiative and entrepreneurship; and (8) Cultural awareness and expression.

Digital competence also in Latvia is more or less referred to ICT skills and is mentioned as one of the basic skills of adult education. Introduction of ICT, accessibility of educational facilities to all, diversity of offer, surveys of demand are among the main challenges in the present day situation of ALE. Each of these challenges have been taken into account in the policy making process. Their implementation needs a wide scope of resources and joint actions in many fields. For example, ICT and accessibility of education for all can be met with the help of computerisation of the country, the network of computerized libraries, etc. (Latvian Long-term Economical Strategy, 2001; National Development Plan for 2007 – 2013; Guidelines for State Cultural Politics 2006 – 2015).

According to the document "Lifelong Learning Policy for 2007−2013" "basing on the usage of comprehensive information and communication technologies, it is possible to reach an important increase in the quality of education, in order to provide a much easier access for every individual to the knowledge and education services, and develop all level ICT usage skills and ensure competent pedagogues for the implementation of learning" (2009:6).

Virtually every branch of the national economy today is involved in the use of ICT, but the ability of people in the various professions to actually use ICT can differ radically. The people of Latvia can be conditionally divided into three large groups based on the analysis of professional standards and "help wanted" ads, focusing in particular on the frequency of ICT use, the jobs that have to be done, the accessibility of ICT services and the education of individuals:

Group 1: These are people who use ICT relatively infrequently or very infrequently. These include drivers, chefs, janitors, hairdressers, retailers, loaders, builders, farmers, forestry workers, as well as pensioners, unemployed people and homemakers. Now

and in the near future, this group of residents will use ICT only to deal with personal issues – contacts with state and local government institutions, businesses and commercial institutions and, in a few cases, handling work-related issues.

The level of education: An elementary education, a professional education after elementary school, a professional secondary education, as well as – in some cases – a high school, college or technical college education; often people in this group have supplemented their education through professional courses.

Group 2: These are people who use ICT on a daily basis at work. ICT offers them a chance to process information, to contact other institutions, companies and individuals, and use software that is specific to their profession. Here we have computer operators, layout specialists, librarians, teachers, scientists, students, civil servants, bookkeepers, administrators and managers and directors at various levels.

The level of education: A high school education, a secondary professional education, a professional education after high school, college or technical college, a university education, and various professional courses, including courses on ICT.

Group 3: These are people for whom ICT is a profession, covering software design, manufacturing of computer technologies, as well as establishment, administration and maintenance of computer networks. Here we have software designers, system analysts, database administrators and computer network administrators.

The level of education: College or university, with the education being related to the ICT profession (Vēzis, 2005).

3 Government Policy, Funding and Regulation of E-learning for Lifelong Learning

As it is stated by the Latvian National Development Plan (2006: 3), "since the renewal of its independence in 1991, Latvia has been able to capitalize on the main driving

force for the growth of the country – its people, along with their knowledge, wisdom and skills, and their wish to use their intellectual assets productively". Information Society is characterized by educated and creative people. The skills of citizens to use the new technology are essential to use opportunities offered by the information society and to promote a knowledge-based economic development. Such technological excellence requires not only a high innovative level of products, but also a high level of innovative thinking by individuals or, in other words, an innovative culture. This, in turn, imposes new and higher demands on the whole system of education, particularly with regard to life-long learning.

The strategic goal and priorities of the National Development Plan (Figure 3-1) are education and knowledge for the growth of the national economy and technological excellence. It can be achieved by developing:

- An educated and creative individual.
- Technological excellence and flexibility of companies.
- Development of science and research (NDP, 2006:13).

To coordinate all the issues regarding the development of the information society an Information Society National Council exists (it was actually created in 2000), chaired by the Prime Minister. The current distribution of its responsibilities is as follows:

- Ministry of Economy – responsible for innovation and e-commerce.
- Ministry of Education and Science – responsible for e-learning, education and R&D in the ICT sector.
- Ministry for Electronic Government Affairs – responsible for e-governance, e-documents, e-inclusion and coordination of public services. Since 2009 the Secretariat as a separate institution was eliminated, exposing it to minister of the Regional Development and Local Government – responsible for spreading information society-related issues in regions. At the moment, this institution belongs to the Ministry of Environmental Protection and Regional Development.
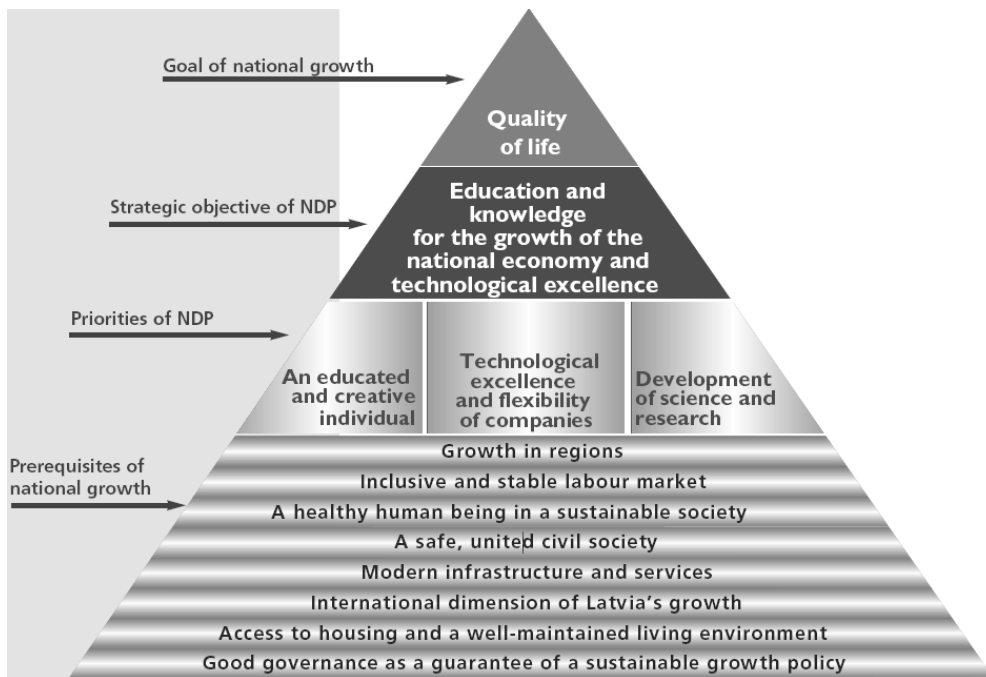
Figure 3-1 The strategic goal and priorities of the National Development Plan

- Ministry of Justice – responsible for personal data protection.
- Ministry of the Interior – responsible for identity documents.
- Ministry of Health – responsible for e-health.
- Ministry of Culture – responsible for libraries.

3.1 Public policies for the Information Society in Latvia

The development of information society in Latvia is determined by the following policy planning documents:

- **Latvia's E-Government Concept** approved by the Cabinet of Ministers on May 7, 2002, in which development strategy of e-government, as well as initial action plan and necessary means for its implementation were defined;

- **Information Society Development Guidelines for 2006-2013** approved by the Cabinet of Ministers on July 19, 2006, in which short-term and longterm policy goals, as well as future direction and necessary financing were defined;
- **Concept of a Principle of a Single Contact Point in Accordance with the Provisions of the Services Directive (2006/123/EC)** approved by the Cabinet of Ministers on May 28, 2009, in which aims, tasks, and development directions for the introduction of a principle of single contact point in the management of administrative institutions are defined;
- **The Concept on Electronic Identification Cards** approved by the Cabinet of Ministers on January 12, 2010 that foresees to introduce the electronic identification card;
- **Electronic Government Development Plan for 2010-2013** (reviewed on April 29, 2010 in the meeting of the State Secretaries) is a short-term development planning document for the next three years drawn for the implementation of the Information Society Development Guidelines for 2006-2013 in order to continue the action plan in the area of e-government development and to provide succession of Electronic Government Development Programme for 2005-2009 (Report on Latvian Economic Development, 2010).

In the implementation of lifelong learning for the Information Society it is important to note **the Informatics programme.**

The Informatics Programme

Due to this late liberalisation, the opening-up of the telecommunication sector coexisted in Latvia with the definition of broader programmes regarding the information society. In 1999, a comprehensive national programme called Informatics was accepted by the Cabinet of Ministers for the 1999−2005 time period (one year programme). Despite the limitations of the title, the programme can be considered as a national strategy for the information society. The fundamental goal of the National Programme "Informatics" is to create an information society in Latvia and integrate Latvia into global development. The National Programme "Informatics" consists of

13 sub programmes and more than 120 specific projects are to be implemented during 1999~2005.

This proves the early bet made in Latvia on the progress of the information society, considered as a new, better-organized type of society, and a knowledge-based societal organization model; in this conception, a wide use of ICT should bring large social benefits and a higher standard of living. A series of interrelated objectives were set up: economic (regional development, new jobs), political (effective governance, ongoing development of democracy, civic liberties) and social (increase of the level of life and life-long education for everyone). The programme includes both macro strategy (the development policy of the country) and micro measures (specific applications and projects). In addition, Informatics includes a detailed analysis of the current status of information services and establishes specific objectives and priorities for multiple sub programmes (Karnītis, 2000).

In order to implement the programme, work has been going on in several directions: a series of normative acts were prepared and passed, a national integrated information system ("megasystem") was created, several kinds of training courses addressed at improving the level of computing and information literacy were prepared, and Latvian information resources were interconnected with International information systems. One significant project, which had been designed according to the principles of the National Programme "Informatics" and the Socio-economic Concept eLatvia, was the Latvian Education Informatization System (LEIS), launched in 1997. Through planning the stages of the education system informatization one principle was taken into account "equipment bundled with functional applications for the educated user". LEIS provided the technical and ideological base for computerisation of schools as well as introduced e-administration principles in the administration of educational institutions. The unique feature of LEIS was the unified approach to the informatization of the education system, covering education, management and information services at several levels − schools, school boards and Ministry of Education. LEIS dealt with computerised learning materials, training of teachers and facilitation of internet connections to schools. It covered several aspects, such as content production, supply of computers, and installation of school networks and maintenance of information

services for the educational community. According to the authors of project (Andzans et all, 2005), the ultimate goal of Latvian national education informatization project LEIS (1997−2004) was a full-scale informatization of the Latvian educational system (sectoral/task aspect):

- Development of electronic educational materials.
- Computer training for the teaching staff.
- Education management system development (students, teaching staff, educational programs and load, development of registers, etc.).
- Infrastructure development (acquisition of computers and Internet access for schools).
- Informative service (development of education portal and publication of educational materials).

The regional dimension included three levels:

- National events (the Ministry of Education).
- Regional events (school boards and regional centres).
- Local events (educational institutions – schools, higher education institutions).

3.2 Policy planning documents

The main Policy planning documents are:

- The Latvian National Development Plan for 2007-2013.
- Information and communication technologies for the quality of education (Program for 2007-2013).
- Strategic Guidelines for the Development of Education for years 2007-2013.
- Information Society Development Guidelines for years 2006-2013.

3.2.1 The Latvian National Development Plan (NDP)

The Latvian National Development Plan for 2007-2013 (NDP) has been developed as a medium-term strategic planning document for the implementation of the development process as stipulated by Latvia's growth model, setting out development objectives for this period and determining the main lines of action that will be able to provide rapid and stable development of the country and the society. The NDP raises new and higher requirements for the whole education system, concluding that the current inadequacy of education to meet the labour market requirements may cause a slow economic restructuring and threat to the growth rates in the near future. There should be compliance of quality of education at all levels with the ever emerging demands of modern society and economy. Approved by the Cabinet of Ministers on 20 October, 2006, order No.81 is a medium-term policy planning document that determines the strategic aim and goals, the tasks for their implementation, areas of activities, the necessary resources, as well as the results achieved and their indicators for the period from 2007 to 2013.

In 2005 the Saeima approved a people-centred long-term conceptual document Latvia's Growth Model: people first, which identified people's knowledge and wisdom to be the country's main development resource.

Active use of the Internet provides opportunities of e-learning through distance processes - learning management for remote learners, group work, reports, tests, etc. Technology makes it possible to diversify the learning process, making it accessible to everyone according to their wishes and possibilities.

This type of learning (e-university) removes in time and space constraints in order to both expand the range of services of educational institutions and make its operations more effective and also to be more attractive and competitive in the global environment. It is beneficial to the rural population, to those who live far from education institutions, who are very busy and have an irregular work time and occasionally for some reason cannot leave home, and so on. Students of other universities may use the program or the training tools that have been prepared by highly qualified lecturers; it enables real cooperation between educational institutions, including at the transnational level.

Goals, sub-goals and actions

Objectives of the program

To ensure the implementation of the strategic objectives and priorities stipulated in the long-term conceptual document Latvia's Growth Model: People First and the Latvian National Development Plan for 2007-2013, it is critically important to promote the development of educated and creative personalities, to facilitate each individual's access to knowledge and education, to create new employment and creative opportunities, to reduce the disparities which have arisen as a result of fragmentation of society. To facilitate the implementation of these tasks the Program sets the long-term goal:

● To promote the development of educated and creative personalities by raising the learners' knowledge and skills in the application of information and communication technologies (ICT).

The program sub-goals

For full implementation of the long-term target in 2007-2013 the following sub-goals of the Program have been set:

● achieve high-quality information literacy and computer literacy learning;
● to use ICT in the study process, developing electronic study materials, improving the curriculum content of education quality to enhance the quality of and attractiveness education, establishing and using a variety of services to improve the quality of education;
● to develop teachers' and educators' ICT knowledge and skills by increasing teacher / lecturer level of competence and work efficiency;
● to build an effective education information system by providing access to electronic study materials and by increasing the management efficiency of the education system;
● to develop a task-appropriate, cost-effective, secure and reliable ICT infrastructure in education institutions and education management institutions of all levels and types.

Programme areas of action:

- development of electronic study resources;
- development of education information system;
- raising the ICT competence of the teaching staff;
- upgrading and maintenance of the education system ICT infrastructure.

The objectives of the program, sub-goals and areas of activity have been set out in the light of the experience and knowledge acquired in the previous education informatization period in Latvia.

Program areas of action and the tasks related to the implementation apply to the whole education system, including the functions of the Ministry of Education, as well as Ministries of Economy, Welfare, Agriculture, Culture, the Interior, Defence, Ministry of Health.

3.2.2 The Education System Informatization Program "Information and Communication Technologies for the Quality of Education"

The Education System Informatization Program "Information and Communication Technologies for the Quality of Education" is a medium-term policy planning document that determines the strategic aim and goals, the tasks for their implementation, areas of activities, the necessary resources, as well as the results achieved and their indicators for the period from 2007 to 2013.

3.2.3 Strategic Guidelines for the Development of Education for years 2007-2013

The aim of the Information Society Development Guidelines for years 2006-2013 is, by introducing modern information and communication technologies, to improve public service quality and availability for the general public. This fully applies to the use of ICT in education, including the education information system, which is an integral part of an integrated national information system and which must function in accordance with uniform principles.

The program also addresses the objectives and action lines as stipulated in the medium-

and long-term conceptual documents, e-Latvia, Long-term Economic Development Strategy, the Single Economic Strategy, the National Innovation Programme, Latvia's National Lisbon Programme, Latvia's Sustainable Development Strategy.

The program's objectives, tasks and activities are consistent with defined priorities and settings in the planning of regional development planning documents in the area of ICT.

The key aspect of computer literacy is the ability to use a computer to use a computer and other opportunities offered by the ICT tools specifically for the field of our activities. The Single European Computer Driving Licence (ECDL) is an EU-scope computer literacy describing document that shows a universal computer literacy level for work in any profession and it is becoming particularly important in the open EU labour market.

The specific skills have been given the term: information literacy.

There are also other important documents in connection with the State Unified Library Information System project.

3.3 The State Unified Library Information System project

In order to improve the possibilities to acquire and apply the information in Latvian society, the Cabinet of Ministers of the Republic of Latvia approved and invested in the State Unified Library Information System project in 2001.

The main goal of the State Unified Library Information System project was to establish a coherent national and public library information system to ensure the possibility for libraries not only to collect, preserve, systematize national cultural and scientific values and provide the access to them, but also use modern information technologies for universal information services – information search, delivery of the required books, publications, reference materials and documents from Latvian and international information sources.

Due to the gradually implemented project, the libraries in Latvia have become reliable

universal information service locations. Libraries are equipped with computers, Internet connection and appropriate library information system, thus allowing to re-organize library work and provide not only traditional services, but also IT applica-tion: electronic catalogue, delivery of multimedia resources, search for information in Latvian and international sources of information, transnational co-operation in cre-ating data bases and integration of interdisciplinary data.

Significant attention in the implementation of the project was paid to the development of library-based training and personnel training to work in the new system. It was one of the most important prerequisites for success in ensuring the training of in-formation users. There have been established regional training centres to carry out life-long learning programs for the needs of regional population.

3.4 Other examples of Latvian information society projects:

- Integrated Information System of the State Significance (Mega system) and participation in the Baltic Government Data Communication Network;
- Common System of Electronic Documentation in the Public Administration;
- Integrated Information System in the Transport Sector (EDITRANS);
- Informatisation of the State Social Security System;
- Public Internet Access Points (PIAP), supported by the Soros Foundation;
- European Computer Driving License (ECDL);
- Regional initiatives, like those in the Vidzeme region, Saldus, Ventspils and Riga.

There are also several laws and government provisions:

- Law on Electronic Documents and Digital Signatures;
- Law on State Information System;
- Law on Copyrights (including a provision on the legal protection of data bases);
- Law on Telecommunications;

- Concept on Electronic Commerce;
- Concept on ID Cards;
- Concept on Electronic Purchase of State and Local Governments (Nissinen, 2002).

4 Status and Characteristics of E-Learning for Lifelong Learning in Latvia

The use of ICT in education is an important element in the European Commission's strategy to ensure the effectiveness of European education systems and the competitiveness of the European economy.

In 2000, the European Commission adopted the e-learning initiative, an action plan which set out the central themes for development in the succeeding years (European Commission, 2000). Alongside existing ICT-based measures, the e-learning initiative looked at "the effective integration of ICT in education and training" (European Commission 2000:3). The i2010 strategy emphasised the need to promote education and training in the use of ICT (European Commission, 2005). Since 2007, ICT for education has also become one of four cross-cutting themes of the Lifelong learning programme (2007) and a general priority in the four vertical programmes (Erasmus, Comenius, Leonardo da Vinci and Grundtvig) (European Commission, 2008b).

In this context, the i2010 initiative on e-Inclusion identified specific areas directly related to teaching in schools where progress was needed. In the area of infrastructure, it focused on providing schools with high speed Internet connections and making Internet and multimedia resources available to all students in the classroom (European Commission, 2007).

Determining which skills and competences would be essential for young people and the future workforce has also been a crucial area of concern. The improvement of

key competences was mentioned prominently in the e-learning initiative (European Commission, 2000) and further elaborated in the Communication on E-skills, which highlighted the need to address digital (il) literacy (European Commission 2007: 8). These guidelines have been integrated also in Latvia. NDP has planned the activities in 4 directions:

Ⅰ. **Development of Electronic Educational Resources** (1) Database of study materials; (2) Development of and promotion of the development of study materials; (3) Methodology of the development and application of study materials; (4) Development of distance learning courses; (5) Accessibility of academic study resources and library information.

Ⅱ. **Development of Education Information System.** (1) User e-profile; (2) Education registers; (3) E-cooperation environment; (4) Evaluation and visiting; (5) Study process support; (6) Catalogue of study resources; (7) Branch portal; (8) Education information portal; (9) Education management information system; (10) Standard of document management systems of education institutions.

Ⅲ. **Raising the ICT Competence of the Teaching Staff.** (1) Basic skills of ICT use for teachers; (2) Teacher training for the subject of information science; (3) Specific computer skills for educators who work with children with special needs, (4) Use of specialized software; (5) Training for the development and application of electronic study materials; (6) Use of distance-learning systems.

Ⅳ. **Upgrading and Maintenance of the Education System ICT Infrastructure.** (1) Mobile computers for the teaching staff; (2) Multimedia equipment; (3) Computers (public access) in libraries and reading rooms; (4) Computers for management and administrative needs; (5) Computers for the support functions of the study process; (6) Development of education institutions local area networking; (7) Internet connection; (8) Free-access resource centre (with Internet connection). (Latvian National Development plan for 2007-2013, 2006).

The implementation of 4 directions in Latvia

Informative report "On the implementation process of "Information Society Development Guidelines for 2006 – 2013" " notes that according to the data of the Latvian Central Statistics Bureau (CSB) survey "Computer and Internet Usage in Households", there was Internet access to 42.2% of Latvian households at the beginning of 2006, whereas in 2009 – 58% and in 2010 – 59.8%. Thus, since 2006, Internet access has increased by 17.6 percent. Total 66.4% of inhabitants – persons in the age of 16 – 74 years – used computer on a regular basis (within the last 3 months) and 66.2% of inhabitants used Internet (Table 4-1).

Table 4-1 Number of Inhabitants Regularly Using Computer/Internet, % of the Total Number of Individuals within the Corresponding Group Source: CSB

	Population who used regularly (used once a week at least)					
	2009		2010		2011	
	Computer	Internet	Computer	Internet	Computer	Internet
TOTAL	61.4	60.9	63.4	62.5	66.4	66.2
Aged 16-24	96.1	95.8	95.4	94.9	98.0	98.0
Aged 25-34	84.7	85.3	87.8	87.0	90.9	91.1
Aged 35-44	71.8	71.4	76.5	75.2	80.0	79.8
Aged 45-54	53.9	52.8	57.2	56.5	60.2	59.8
Aged 55-64	31.9	30.5	31.6	30.6	41.8	40.8
Aged 65-74	8.7	7.9	10.9	9.4	13.5	13.2

According to Internet Research Company "Ookla Net Metrics", internet speed measurement data published at speedtest.net data in December, 2010, Latvia, with download speed of 25.8 Mbit / s ranked in the 2nd place and with the upload speed of 13.9 Mbit / s – in the 3rd place among 185 countries in the world. The following results were achieved thanks to the investments in the optical network by the largest Latvian telecommunication companies. For example, by end of the year 2010, the optical Internet network of the company "Lattelecom" was available in 300 000

households mainly located in Riga and 12 major cities in Latvia, but by the end of 2011, it has been planned to provide this access to 400 000 households in 23 cities in Latvia (Report on Latvian Economic Development, 2010).

The European Digital Competitiveness Report published in 2010 analyzes the development of information society in recent years. It has been noted that Latvia has improved its performance and is closer to the EU average level in a number of areas. Although the number of Internet users (66.2% of the total population), is slightly above the EU average (60%), the areas where Internet has been used differs a lot. There has been rapid increase in the number of Internet users who read news online, use online banking, upload information on the Internet, and learn online, while e-commerce use has been significantly below the EU average (Report on Latvian Economic Development, 2010). According to CSB data (Table 4-2), the Internet has been mostly used for sending/receiving e-mails – 55.1% (data form Year 2010), for reading or downloading online news / newspapers / news magazines (58.5%), participating in social networks (55.1%), Internet Banking (53.2%), and for ending information about goods or services (52.3%).

Table 4-2 Purposes for Internet Usage by Individuals at the Beginning of the Year (%). Source: CSB

Activity	Of total population		
	2009	2010	2011
Sending / receiving e-mails	53.7	55.1	...
Telephoning over the Internet / video calls (via webcam) over the Internet	31.5	35.0	41.3
Posting messages to chat sites, blogs, newsgroups or on-line discussion forum, use of instant messaging	31.9	28.0	...
Finding information about goods or services	49.7	56.5	52.3
Using services related to travel and accommodation	23.1	25.6	25.0
Listening to web radios or watching web television	30.7	29.7	...
Playing or downloading games, images, films or music	38.0	38.1	...

Table 4-2 Purposes for Internet Usage by Individuals at the Beginning of the Year (%). Source: CSB

Activity	Of total population		
	2009	2010	2011
Downloading software (other than games software)	19.5	18.6	23.8
Reading or downloading online news / newspapers / news magazines	46.3	50.8	58.5
Looking for a job or sending a job application	24.5	24.9	27.0
Seeking health related information	28.7	32.4	37.8
Internet Banking	42.2	47.5	53.2
Selling of goods or services, e.g. via auctions	3.7	...	8.0
Internet purchases	8.2	8.5	9.8
Interaction with public authorities	22.8	31.2	...
Obtaining information from public authorities' web sites	22.2	30.7	40.5
Downloading official forms	8.4	10.0	19.8
Sending filled in forms	6.4	8.1	21.7
Looking for information about education, training or course offers	22.9	24.8	30.0
Doing an online course (in any subject)	6.5	5.0	4.9
Consulting the Internet with the purpose of learning	34.1	38.7	...
Uploading self-created content (text, images, photos, videos, music etc.) to any website to be shared	33.8	38.5	...
Participating in social networks	...	...	55.1
Reading and posting opinions on civic or political issues via websites	...	...	27.1
Taking part in on-line consultations or voting to define civic or political issues	...	...	12.0
Consulting wikis (to obtain knowledge on any subject)	...	...	29.1
Participating in professional networks	...	...	8.0

... No data

Overall, there has been observed a gradual improvement of the information society development indicators and average EU figures have been achieved in several areas. The following table (Table 4-3) provides a collection of Eurostat data on information society development in Latvia and on average in 27 EU member states from 2006 till 2010.

Table 4-3 Data (%) of Information Society in Latvia and ES, 2006-2010

Indicators	2006 Latvia (ES)	2007 Latvia (ES)	2008 Latvia (ES)	2009 Latvia (ES)	2010 Latvia (ES)
The number of inhabitants using the Internet regularly	46 (45)	52 (51)	57 (56)	61 (60)	62 (65)
The share of households with broadband Internet connection	23 (30)	32 (42)	40 (48)	50 (56)	53 (61)
The share of employees using computers and Internet in everyday life	19 (35)	23 (38)	25 (39)	24 (41)	No data available
The proportion of merchants using e-government services	40 (63)	45 (65)	55 (68)	64 (72)	72 (76)
The proportion of population using e-government services	25 (24)	18 (30)	16 (28)	23 (30)	31 (32)
The proportion of population using the Internet, searching for information on health issues	11.6 (19.1)	11.2 (23.8)	23.9 (27.7)	28.7 (32.7)	34.0 (32.4)
The proportion of merchants'' turnover from the sales on the Internet	1 (11)	2 (11)	7 (12)	5 (13)	7 (14)
The proportion of population shopping online	5 (20)	6 (23)	10 (25)	8 (28)	8 (31)

The following chapters will deal with a brief overview of ICT and e-learning applicability in the formal, higher and informal education.

4.1 ICT and E-learning in the Formal Education

Formal education and the use of ICT and e-learning will be viewed from the perspective of ICT skills development at school (the role of Informatics study program), administration of e-resources, teacher in-service training.

4.1.1 ICT and E-learning at the Compulsory School Level

According to the Report of the Ministry of Economic Affairs (Report on Latvian Economic Development, 2010) there were 9.9 computers on 100 students in mainstream schools at the beginning of school year 2010/2011. E-learning is not very popular in elementary and secondary schools; the main focus here is the acquisition of ICT skills.

4.1.1.1. Development of the Subject of Informatics at Schools in Latvia

There are four individual phases during which the teaching of informatics at schools in Latvia has been implemented:

1) 1963 or 1964 to 1985 – informatics (then known as "Computing Mathematics and Programming") was taught only in a few classes where students were pursuing in-depth studies of physics and mathematics;

2) 1985 to 1991 – informatics (then known as "Fundamentals of Informatics and Computing Technologies") was a mandatory subject at all high schools; methodological and programme-based support for the subject of study was actively established and introduced;

3) 1991 to 1997 – informatics classes (they were called "Informatics") were offered to high school students as an elective, both for those students who were pursuing a general, and those who were pursuing a specialised education; generally speaking, however, the extent to which the subject was taught diminished to a certain extent, except in a few particularly active schools;

4) Since 1997, the Latvian Education Informatization System has been estab-

lished, and under the auspices of this project, the teaching of informatics (the subject is called "Informatics" or "Applied Informatics" in high schools and "Computer Studies" in elementary schools. Since 1999, the subject "Applied Informatics" has been mandatory in all high schools thanks to the Latvian Education Informatization System (LEIS) project, the subject of informatics gradually regained its positions in the educational system, because schools were provided with modern computer technologies, and the entire educational system was informatized in a complex way (Vezis, 2005).

4.1.1.2. The Use of ICT in Education
4.1.1.2.1. The Offer of E-resources in Specific Subjects

E-learning resources can provide a full training program or a module or syllabus learning in formal education. This demands specific requirements for e-learning resources as to the students' age and program content. Such e-resources provide the opportunity to learn at a distance, as well as at individual study time. Most schools have their own websites with uploaded prepared training materials.

It is also possible to use centrally prepared e-resources (DZM Project). European Social Fund Project "**Science and Mathematics**" (Nr. 2008/0002/1DP/1.2.1.2.1/08/IPIA/VIAA/001) is implemented according to the agreement of December 15, 2008 concluded between the State Education Development Agency and the Centre for Curriculum Development and Examinations (since July 1, 2009 – State Education Centre). Project implementer is State Education Centre. Period of project implementation is December 15, 2008 – October 31, 2011. Before that there was implemented similar project for secondary schools "**Project of Science and Mathematics for Upper Secondary Education Level**" (2005 – 2008).

Today every student in grades 7 to 9 should have an opportunity to study science and mathematics in a way which is attractive, related to the real life and involving the use of modern teaching and learning methods, electronic study aids and possibilities provided by the e-learning environment. Teachers' role in the classroom is more to consult, support and guide through the new topic rather than pure lecturing to ensure that students learn chemistry, biology, physics and mathematics with real inter-

est and in a contemporary way.

Project "Science and Mathematics" objectives:

- to improve the curriculum of science and mathematics for grades 7 to 9 by emphasizing students' scientific inquiry and their skills to apply the classroom-gained knowledge in real life situations, and to facilitate the use of information technologies during the teaching and learning process.
- to ensure methodological support for teachers and students in teaching-learning of science and mathematics in general education – to prepare various materials on the use of teaching and learning strategies, on assessment of students' learning achievements, as well as diverse visual aids for teachers and students in printed and electronic form (DZM Project).

Informative report "On the implementation process of "Information Society Development Guidelines for 2006 – 2013" (2011)" has been noted that in the review period, in terms of the ERDF-funded operational programs, there have been modernized science classrooms (including purchased computers) in 71 general education institution.

4.1.1.2.2. The Development of Separate MOODLE Courses

Many Latvian secondary schools used MOODLE as an e-learning environment. Similar to that in universities there have been observed the characteristics of blended learning.

4.1.2.2.3. The Development of Separate Distance-learning Courses

There are some secondary schools in Latvia which have created distance learning programmes, for example, Riga Private Correspondence (Distance) High School No. 1, where the learning process is organized as distance education. Particularly active in designing distance learning courses are vocational schools.

4.1.2.2.4. Internet in Various Educational Projects Locally and Internationally

As one of the examples could be mentioned **eTwinning** activity in Latvia. eTwinning is part of Comenius, the EU programme for schools. It promotes the use of ICT at schools in Europe. Teachers and students use internet to work together across borders. They cooperate, exchange information and share learning materials.

eTwinning broadens the scope of the pedagogical opportunities offered to teachers and students; it motivates to learn and opens the classroom to Europe. The National e-Twinning Support Service in Latvia informs, communicates, consults and educates pedagogues in the field of ICT; it maintains and monitors the portal. The goal of e-Twinning in Europe: by 2007, 10% of European schools must have one e-Twinning partner-school. The goal for Latvia is for about 100 schools to have a partner-school by 2007. An interim goal: by 2005, 1000 schools in Europe, 20 in Latvia. Advantages of e-Twinning include young people that are well-versed in ICT, electronic educational resources and a sense of a unified Europe (Trapeniece et all, 2005). Now there are 539 school(s) registered; 1212 members registered; 154 running project(s), and 396 closed projects in Latvia.

4.1.2.2.5. Communication Portals

E-class (**E-klase** www.e-klase.lv – System for parents to follow up their childrens' marks, school attendance etc.) is a common portal for students, teachers and parents (also Twitter Stay in touch with E-klase Join Twitter (http://twitter.com/eklase).

The 2005/2006 academic year saw the introduction of a new educational tool in the schools of Latvia, which will allow schools to take advantage of the latest methods to meet contemporary educational demands. Schools will be able to significantly raise their efficacy taking advantage of the opportunities given by electronic data processing, analysis and automation. The programmers of the e-class have developed a system for informing parents about student achievements, grades and delays - entered on a daily basis. This information can be transmitted to parents via SMS.

It is a multifaceted and realistic benefit not only for parents, but also for teachers, school administrations, the students themselves and the society as a whole. The main advantages are a more effective involvement of parents in the educational process and a more efficient use of time and resources. As this project proceeds and develops further, it is conceivable that schools may do away with daily assignment books and traditional journals (Trapeniece et al, 2005).

Mykoob (www.mykoob.lv). Mykoob is learning social network to support schools in improving and modernizing the learning process.

The educational web portal *Skolas.lv* represents a key element of the Latvian govern-

ment's work aimed at implementing modern ICT technologies in K-12 education. The portal serves as central communication point between the Ministry of Eductaion and Science, teachers, pupils and parents.

The portal supports the development of our emerging information society by encouraging innovative teaching and learning so as to stimulate creativity amongst both teachers and students. Not only that, but it provides a framework for the development of collaborative projects and social networking, while also integrating data from various education-related information systems and data sources and presenting them in a role-based web interfac(The Latvian IT Cluster: Poll the resource, share the vision, 2008).

E-school (**E-skola** www.e-skola.lv). The Education, Youth and Sports department of the Riga City Council provides helpful information for pupils, parents and teachers. Information about laws, releases, video, information about schools etc.

4.1.2 Teacher In-service Education

In order to integrate ICT in education, National programme "Information and Communication Technologies (ICT) for Quality Education 2007−2013" has been approved by LR government. One of the program objectives is to create such ICT environment, which leads to the improvement of efficiency and quality of general and vocational education system. There are four actions defined in the program: the improvement of ICT skills for teachers; development of e-study materials; development of educational information systems; providing schools with hardware infrastructure.

Parallel to the school system informatization project, there are also implemented projects indirectly connected with the acquisition of teachers' ICT skills. Currently, the project "In-service Education of General Education Teachers" is being implemented in Latvia. Its duration is from September 2010 till November 2013. It aims: to enhance general education teachers' competence and update skills for organisation modern learning process, building knowledge-and innovation-based society by the development of advanced training programs, handouts, preparing in-service trainers and im-

plementing in-service education courses in five modules. 16 000 teachers will improve their professional competence in the in-service courses. The total project funding is 2.7 million LVL[1] (ESF project "In-service Education of General Education Teachers").

During the reporting period, the ERDF-funded operational programs have purchased 894 adequate, efficient, secure and reliable ICT units, established or improved existing 243 of ICT networks, trained 1718 teachers to work with ICT, and 511 informatics teachers have received grants (IZ_ISAP, 2011).

4.2 ICT and E-learning in the Vocational Schools

In recent years the prestige, quality and social dialogue of vocational education have become a great priority of state policy. Participation rates in continuing vocational education may have increased due to the education courses for the unemployed arranged by the State Employment Agency.: In 2007, 3893 unemployed people participated in vocational education, re-qualification or qualification promotion, while in 2010, it increased to – 8297 people. The other motivating aspect to participate in adult education programmes is learning activities supported by ESF through various projects, which provided (and provides) education courses for free or for reduced fee. Still, the political ambition is to increase education participation rate of adults (25 – 64) from 7.5% in 2009 to 12.5% in 2013, which has been reflected in the "Amendments in the Guidelines for Lifelong Learning Policy for 2007 – 2013" (*Grozījumi Mūžizglītības politikas pamatnostadnēs 2007. – 2013.gadam, December 2009*). One aspect of the implementation of the Lifelong Learning Programme and its sub-programme – Leonardo da Vinci for Vocational Education -- is the participation in geographic mobility in vocational education since 1998 which has been fostered in the framework of the Leonardo da Vinci Programme. In 2010, there were approved 51 preparatory visits, 102 mobility, 4 transfer of innovation and 7 partner-

---

1) 1 lats(LVL)=0.702804 Euro (25.0.2012)

ship projects. In 2010, around 420 persons in total (vocational education students and teachers, people in labour market, counselling specialists and other representatives of vocational education personnel) received grants and participated in the mobility projects. The total grant for the activities approved was EUR 2,391,000 (Latvia. VET in Europe — Country Report, 2011).

The contribution of EU funds has a significant role in the implementation of structural education reforms. The ESF support is provided for:

1. **The arrangement of vocational education establishment network**: the ministry prepared amendments, which would stipulate that the remainder of funding quota available for the regions is allocated to give additional support for implementing the functions of regional competence centres.

2. **The support for promoting attractiveness of vocational education** (the project was initiated in March 2009). The aim is to improve the attractiveness of initial vocational education programmes for young people; thus, increasing ratio of vocational education students. In terms of the sub-activity vocational education students are provided with scholarships with a total public funding of sub-activity of EUR 57,627,330 (it is planned to increase funding and enlarge the circle of organisations applicable for support).

3. **The improvement of vocational education quality**. Sub-activity "**Raising Competence of Teachers Involved in Vocational Education**" (*Profesionālajā izglītībā iesaistīto pedagogu kompetences paaugstināšana*) — which is targeted at initial and continuing vocational education teachers, trainers, crafts education teachers, teacher educators, and teacher students. The project includes such activities as developing and implementing specific education courses, providing support for work-based learning in enterprises, improving vocational education teachers' education, providing support to the acquisition of teacher's qualification, and supporting the elaboration and introduction of innovative approaches within vocational education (including ICT, e-resources, and e-learning environment). The total public funding of sub-activity is EUR 10,588,235.00 with 6 projects which were started during 2010. Further will

be offered more detailed information of one of these 6 projects realised by UL. This project, implemented from 1 January 2010 till 31 December 2012, is linked with use of ICT, e-resources, and e-learning environment).

The University of Latvia has started an implementation of European Social Fund project "*Raising competence of teachers involved in vocational education teaching general comprehensive subject*s" within the framework of sub-activity "Raising Competence of Teachers Involved in Vocational Education".

The aim of the project is to promote raising of generic competences, including foreign language competence and ICT, and subject-specific competences of teachers involved in vocational education teaching general comprehensive subjects by creating support materials and testing them in the learning environment of Moodle. During the project support materials for general comprehensive subjects will be designed, testing of the created materials will be carried out in teachers' further education courses. E-learning and e-studies as one of the most significant innovations in ICT education will be applied during the testing process. During the project the created productive automated assessment and self-assessment system of students TESTS, created at the University of Latvia, will be improved so that it could be further used in assessing the knowledge of students of vocational schools.

Target audience is 900 teachers. Project applicant institution is University of Latvia. Cooperation partners are University of Liepaja, University of Daugavpils and Rezekne Higher Education Institution.

Project financing is 932,756.00 LVL[2]), from this 792,842.00 LVL is ESF financing and 139,914.00 LVL from the state budget (*Profesionālajā izglītībā iesaistīto vispārizglītojošo mācību priekšmetu pedagogu kompetences paaugstināšana*).

Furthermore, the National Centre for Education (*Valsts izglītības satura centrs*) in April 2010 initiated ESF project "**The Improvement of Theoretical Knowledge and Practical Competences for Vocational Subject Teachers and for Supervisors of Practical Training**" (*Profesionālo mācību priekšmetu pedagogu un prakses vadītāju teorētisko zināšanu un praktisko kompetenču paaugstināšana*, 2010 – 2012). The project, with

---

2) 1 lats(LVL)=0.702804 Euro (25.01.2012)

total funding EUR 3,811,916, is aimed at improving the theoretical knowledge and practical competences for initial vocational education teachers and for the supervisors of practical training (in total for 1570 persons) by referring to updated vocational education content, innovations in economy, development of production technologies and by establishing sustainable and continuous cooperation between vocational schools, social partners and other stakeholders in all regions of Latvia. At present (September 2011), experts have developed and piloted supporting material "**Methodological Aid for Developing and Using Learning Aids in E-environmen**t" (*Metodiskais līdzeklis mācību material izveidošanai un īstenošanai e-vidē*), and 22 modules for theoretical knowledge improvement (by sectors) that are posted online; furthermore, teachers' in-service learning at enterprises has been initiated and five large seminars by sectors have been organized (Latvia. VET in Europe – Country Report, 2011).

4.3 E-learning in the Higher Education Level

According to "Report on the Development of the Latvian Economy" (2010) at the beginning of the academic year 2009/2010, the number of computers per 100 full-time students at higher education institutions and colleges was 18 (at the beginning of academic year 2008/2009 – 14 computers). E-learning has been used very effectively in university teaching for enhancing the traditional forms of teaching and administration. Initially in Latvia there have been organized distance learning courses based on 2 main principles the distance education philosophy is based on. They are openness and flexibility. Openness means access to education for all people irre-spective of their age, previous formal education, social status, occupation and place of living. It is also freedom in choice of subject, place, time and pace of learning. Openness could be reached by flexibility in choosing the most appropriate learning media and education strategy to reach the goal in each particular case (Brivkalns et all, 1999). E-learning in the point of view of higher education will be viewed

as an activity which takes place in some distance learning centres and as integration into university curricula.

4.3.1. The Implementation of Distance Education in Distance Education Centres

At the beginning of 2005, there were 9 institutions in Latvia that offered distance learning. The offer was quite extensive and versatile. In Latvia, it is possible to obtain bachelor's degree (School of Business Administration "Turiba", Vidzeme University College), bachelor's and master's degree (Riga Study Center of Hagen Distance Learning University), first level professional degree (Business Administration College), as well as to enroll in professional development and perfection programs (Academy of Entrepreneurship and Management of Latvia); distance learning courses are included in full-time distance studies (UL E-university, RTU Distance Learning Study Centre). Each of the above mentioned organizations offers their own support system (Kristovska, 2005). Four higher education institutions offer accredited web-based distance education programmes as a means of distance education. These institutions are Hagen Distance Learning University, Riga Study Centre, Turība, ViA, and the Business Management College with annual fees ranging from EUR 825 to EUR 950 (Latvijas Avīze, 2006). Most higher education institutions in Latvia use ICT as a support for their full-time students, and have not introduced eLearning distance education courses (Kalis, 2008).

It means that distance learning is provided both by private and state education institutions. Education institutions may provide both full time and part time extra-mural studies. Mainly higher education institutions offer distance learning programmes. For example, Distance Education Centre (DESC) of Riga Technical University, which was formed in 1997 in the framework of Phare programme, offers several study courses (computers, business planning, languages etc.) (Latvia. VET in Europe – Country Report, 2011). The aims of the Centre are to develop life-long learning and distance education in Latvia and to research eContent/eLearning related knowledge society technologies (The Distance Education Study Centre).

To promote open source principles for advanced courseware also private education

providers offer e-learning courses, for example, learning centre Buts Ltd implements 29 e-learning courses (September-November 2010) of 160 or 320 hours regarding quality leadership, computers, qualification promotion for accountants etc. (Mishnevs, 2010).

Higher education institutions are also leaders in Research and Development (R&D) linked directly to e-Learning. Most universities develop their own e-Learning content and web-based courses, while some are also involved in larger-scale projects. For example, "Turība" developed its own LMS; however, at the moment this is outdated, and they are researching options to develop or acquire a new system. At the moment, two major R&D projects are supported by the European Regional Development Fund (ERDF). Liepaja University is working on innovative solutions for programme engineering games to develop knowledge society skills. RTU, and more precisely, their Distance Education Study Centre (DESC), is working on research into m-Learning (mobile learning) possibilities in Latvia. RTU DESC has already developed many high-quality projects described in the second chapter; it is also included in the EU 6th Framework Programme Network of Excellence Kaleidoscope.

E-Learning development has also brought some higher education institutions closer, enabling cooperation. Results of such co-operation were highly visible at the end of 2006 – seven higher education institutions – RTU, LU, the Latvian University of Agriculture, Ventspils University College, Riga Technical College, Daugavpils University, and Rezekne Higher Education Institution – received European Social Fund (ESF) support for 27 projects related to improvements in infrastructure and quality of studies. These projects will mainly introduce modern technologies along with approaches to learning using these technologies, allowing students to take full advantage of e-Learning. The total budget of the 27 projects is LVL 4.37 million (EUR 6.24 million), with 75% ESF financed, and the remaining 25% by the Latvian government (Kalis, 2008).

Since 2011 in Latvia, the project "*The Establishment of Uniform National Importance Latvian Academic Network for Scientific Activity*" has been launched under the sub-activity 2.1.1.3.2. "The Improvement of Information Technology Infrastructure and Information Systems for Scientific Activity" in the 2.1.1.3. activity "Development

of Science and Research Infrastructure".

The project aims of the development of Latvian academic basic network and access network of national importance for academic and scientific activities, research, formation and equipment of shared scientific data centers, single access development and modernization of foreign academic networks and research libraries, development and implementation of information systems for scientific and research activities, purchasing of technological means to modernize scientific and research laboratories, formation of unified integration platform for information systems of research institutions and the development of integrated learning environment.

The project is implemented by the Ministry of Education and Science in collaboration with 100 Latvian research institutions – the project cooperation partners, located throughout the territory of Latvia, scientific institutes, universities and colleges. The project is being implemented with the financial support from the European Regional Development Fund (ERDF). Total project costs are estimated at 10,614,363 lats[3], where funding for 10,514,363 million has been allocated by the ERDF. The project is planned to be implemented by the end 2014. (*Par projekta "Vienota nacionālas nozīmes Latvijas akadēmiskā pamattīkla zinātniskās darbības nodrošināšanai izveide" īstenošanu*).

4.3.2. Blended Learning as a Typical Case in Higher Education

E-learning courses used as blended learning are mostly implemented in higher education in Latvia. Universities in Latvia provide new educational technology environment for the students. Blended learning and Internet TV is considered to be the most important setting of learning in Universities of Latvia in the following years. Computer-based technologies will remain the most dominant learning environment for the next ten years. The Internet will be the main teaching setting in the coming ten years in Latvia by increasing Internet-based trial exams, Information Management Programs and Internet-based drill and practice software. In Latvia, the most probable case for companies dealing with e-learning will be the approach used by businesses

---

3) 1 lats (LVL)=0.702804 Euro (25.01.2012)

working with open-source software – most revenue will be generated by services. The main reason for this is that the market is too small to hope for large-scale sales of a standardized product (Misnevs, 2010).

For example, the e-learning at the University of Latvia is organized through the use of e-courses in the e-learning systems WebCT or Moodle. E-courses are always combined with traditional face-to-face courses. That means that e-courses are offered as a supplementary part for traditional studies. Faculty members can use e-courses if they find them appropriate. Some e-courses serve only as an online space to store study materials, other e-courses are used much more extensively (Medvedis et.al, 2008). In spring semester 2011, there were 1537 e-courses in the University of Latvia, but only 603 of them were active with 3049 students involved. The student is supposed to be active when she/he has entered the course at least once and the active course is a course where the percentage of activity is greater than 5%. (Statistics of E-studies at the University of Latvia, 2011). Blended learning is used in the University of Latvia – e-courses are available for all 23 000 students, but in most cases they are used as supplementary materials to online lectures. Coverage of curriculum varies from 100% in the Faculty of Computing to just a few courses in the Faculty of Law. At least 5000 students (22%) use the courses on regular basis (Statistics of E-studies at the University of Latvia, 2009).

The data of pilot study which were participating in 100 students of the higher educational institutions studying at the University of Latvia, Riga Teacher Training and Educational Management Academy, Jazeps Vitols Latvian Academy of Music, and Riga Technical University showed:

- most of the students gave preference to e-learning because of learning autonomously, combining studies with work, planning personal time, choosing learning resources and learning according to one's own needs and abilities. It was interesting that many respondents considered e-learning as a challenge for them.

- the main aspects which attracted students to e-learning were the possibility to develop their learning competencies, get new learning experience and improve

their ICT knowledge and skills. The communication on e-platform was also important, but it was more significant regarding the communication with lecturers instead of the communication among students.

● lecture materials (text format, images and other static information), sometimes videos, demos, and interactive learning materials including self-assessed learning had been most used by students. Of course, in e-learning there had been also used tests, polls and exercises and tasks, also check-up works. The least used there had been free discussions, course forums on specific topics, and chats and even less than that the videos of lectures and live lectures online (the highest rating "never" – 80–82%). The same problematical issue were the communication: communication among students had been never used (32%) and communication with the lecturer (never – 21%), but at the same time more students had believed that for them was important to communicate with course mates (very often – 19%) and the lecturer (very often – 10%). (Birzina, 2011).

More detailed description and samples of good practice will be offered in Chapter 5.

4.4 E-learning in Non-formal and Informal Education

According to the data (Figure 4-1) of State Employment Agency (Nodarbinātības valsts aģentūra ‒ NVA) average unemployment rate is 11.5% in November 2011. Comparatively the lowest level of the unemployment is in Riga region (8.5%), while the highest in Latgale region (19.7%).
According to the CSB data (November, 2011), there are most people involved in LLL (in non-formal education) in the Riga region (34.6%), but least ‒ in Zemgale region (9.6%) (Table 4-4).

The registered unemployment rate in Latvia in November 2011 - 11,5%
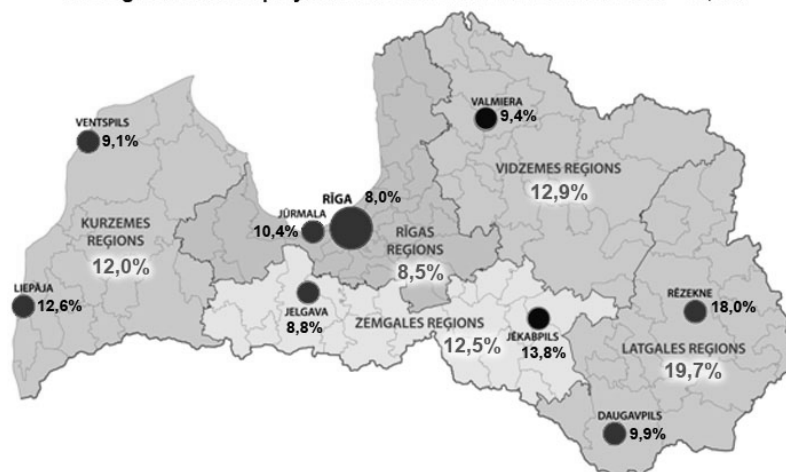
Figure 4-1 The Registered Unemployment Rate

Table 4-4 Participation in Adult Education by Regions (per cent). Source: CSB

Regions	Non-formal education
Riga region	34.6
Pieriga region	19.9
Vidzeme region	10.0
Kurzeme region	15.2
Zemgale region	9.6
Latgale region	10.7
LATVIA	100.0

Of the offered courses, the course *Computer use* as a form of informal education is chosen by 8.6% and a job-related education activity – 7%. There has been organized training of unemployed in terms of the sub activity 1.3.1.1.3. "Training of Unemployed People and Job Seekers" of European Social Fund Operational Programme "Human Resources and Employment". In 2009 in terms of non-formal education programs, 3669 unemployed people have completed computer science (without previous knowledge) course and 1370 – computer science (with previous

knowledge, a specific program of training) course; in the first half of 2011, re-spectively – 2242 and 842 unemployed people (IZ_ISAP, 2011).

4.4.1 Common Access to Electronic Content and Services

Latvia as the Member State of the European Union (EU) implementing the EU region-al policy uses financial assistance provided by the EU for economic and social development. Largest financial instruments within the framework of which Latvia receives financial assistance are the EU funds: European Regional Development Fund (ERDF), European Social Fund (ESF) and Cohesion Fund (CF). In addition, Latvia also receives financial resources within the framework of the European Community initiatives EQUAL and INTERREG, as well as other EU financed programmes. According to the decision of the Council of the EU on long-term financial framework for 2007 – 2013, Latvia has received EUR 4.53 billion(4,530,447,634) for the achieve-ment of Cohesion Policy goals through the EU funds (ERDF, ESF and CF) (EU Funds).

Figure 4-2 Division of EU Funding in Latvia

In the framework of European Regional Development Fund for 2004 – 2006 single programming document, 1.3.2. activity "**Support to Development of Public Internet**

Access Points" there were created 446 Public Internet Access Points in the Latvia. In single programming period for 2007 – 2013, it is planned to implement 3.2.2.2.activity "**Support to Development of Public Internet Access Points**". The objective of activity is to promote access to internet for all, promote access to public services and information for promoting life quality for all.

Project "**Development of Broadband Communication Networks in Rural Areas**" aims at promoting investments in broadband infrastructure capable of providing broadband services in the geographic regions of Latvia which are currently not served and where there are no plans for coverage in the near future. The measure thereby aims at strengthening territorial cohesion by preventing the creation of a broadband digital gap between communities and businesses that can get access to broadband services at a competitive market price and those that cannot.

The main activities of public library development project Trešais tēva dēls (3TD) are (1) Supply of computers – all Latvia's municipal public libraries are being supplied with new computers; (2) Supply of software – all the computers are updated with the latest software enabling library users to utilise state-of-the-art techniques for searching and processing information. Improvement of local area networks and internet connections – so that the full capabilities of the new computer equipment can be utilised, improvement of local area networks and internet connections is being undertaken at the same time. When this process is completed, all public libraries will have broadband access to the internet, available both to people working with the library computers and to those who come to the library with their own laptops because free wireless access to the internet will be available in all libraries and in their immediate vicinity. Till year 2011, a state agency Cultural Information Systems (v/a "*Kultūras informācijas sistēmas*") in terms of 3TD project has improved the technical infrastructure including free wireless (Wi-Fi) internet access of Latvian local municipality libraries. More than 870 Latvian public libraries and their external service points have been included in an integrated data network that provides access to library users not only to protected online content, but also access to various government data bases and the copyright materials, that are free of charge to library users. In the ERDF-funded project "Establishment of Digital Library – 2nd round", 3.5

million of pages of books and periodicals will be digitized, as well as technical infrastructure of digital library and sets of information systems will be developed in the project "Digital Library Services". In cooperation with the U.S. Library of Congress and UNESCO World Digital Library project, Latvian memory institutions of the UNESCO Memory of the World Programme of international and national registry objects will be digitized and made public (IZ_ISAP, 2011).

4.3.31.1. e-Accessibility for People with Disabilities

It is difficult to get information on assistive technology products and possible technological solutions for people with disabilities. Because of the lack of information and high cost of the products, one segment of the disabled population cannot fully benefit from the use of computer or is excluded from the Information Society. Due to architectural barriers (stairs, no ramps or/and lifts) Internet access points in libraries and PIAPs in general are inaccessible for wheelchair users.

Project "**The Open door**". The project is implemented by "*Apeirons*", a NGO of people with disabilities and their friends. The overall goal of the Open Door project is to accelerate the development of Information Society and create equal opportunities for all people including those with disabilities to access ICT and IT training.

To facilitate access to information for social risk groups, the websites of the Ministry of Welfare and its subordinated institutions are tailored to people with disabilities (the possibility to change the text size to a larger, more compact option to view web content (the description of easier to read topics for people with special needs)) (IZ_ISAP, 2011).

4.4.2 Actions towards Stimulating Digital Literacy and Competences

The public library development project Trešais tēva dēls (3TD) is being implemented by State Agency Culture Information Systems (Kultūras informācijas sistēmas) with the following activities (1) Training of librarians; (2) Public communication; (3) Project-impact assessment.

The programme "**Information and Communication Technologies (ICT) for Quality Education 2007 ~ 2013**" aims to implement a large scale projects to provide educa-

tional establishments of all kinds and levels of ICT infrastructure, to develop electronic teaching materials and programs, to support the acquisition of ICT basic skills for students and to enhance ICT skills of teachers to use ICT widely in teaching process.

The goals of **Initiative "Latvia@World"** by the Latvian Information Technology and Telecommunication Association (LIKTA) are to help the people of this socio-economic target group to overcome the so-called digital exclusion, thus motivating such people, who are subject to the risk of social exclusion, to join the labour market and lead active social lives. To achieve the goals of this project, the programme to acquire computer skills and use Internet resources will be developed and validated initially in a pilot program. Training of information society skills: basic skills programme (8 hours) and further training programs will take place. The target audience is unemployed people, pensioners, disabled persons, employees of municipalities, employees of health care, culture institutions and SMEs (More: www.latvijapasaule.lv, www.likta.lv). Till August, 25 2008, 441 teachers and 22410 students had been trained.

There is also project "**Virtual Guide for Families**" by the Latvian Information Technology and Telecommunication Association (LIKTA) where digital skills for families have been trained (Latvia 2008).

Latvian Internet Association in cooperation with the National Inspectorate of Children's Rights Protection ensures Safer Internet Centre activities in terms of the programme **Net Safe Latvia** and they implement the project "Safer Internet". The mentioned project is organized as various informative social campaigns to raise the awareness of children and adults. There are developed training materials for schools, organized training seminars, carried out research and other informative and educative activities for a safer Internet use.

Latvia has accumulated considerable experience in the field of language technologies at national, European (EU working languages of the central program for technology projects run by or with the participation of Latvia, such as 7th programme and the EU Competitiveness and Innovation Programme) and global level (machine translation). Currently, a new initiative of culture policy has been approved. It will bring

together and coordinate working languages of research institutions, digital content organization, business, information technology institutions, educational institutions and other related institutions in terms of technologies. In order to implement this initiative, it is defined as the project of language intelligence technology center "Language Shore", which will provide automated translation, terminology management, intelligent search systems, the human voice technologies, literacy technologies, digital library technologies and semantic information management (IZ_ISAP, 2011).

4.3.2.1. E-inclusion and Cultural Diversity

The turn of the 20th and 21st century came to Latvia under the mark of knowledge-based society, calling for a quick and qualitative access to the most diverse information, provided that this information is exactly what one was looking for. Access to Internet has become a significant and irreplaceable value in the process of study, work or research, and lifetime education, allowing everyone to acquire and use the necessary knowledge, and apply it to their daily life, thus promoting the role of human knowledge in the development of nation.

In compliance with the tendencies of the modern epoch, also in Latvian culture, the historic heritage that has been accumulated through centuries at museums, libraries and archives, as well as all noteworthy developments, events, trends, facts and data, are being concentrated in a new and impressive 21st century project entitled "*Latvijas Kultūras mantojuma portāls*" (**Latvian Cultural Heritage Portal**), becoming an entire wealth of information available and accessible to everyone. The goal of the project is to establish a united portal for Latvian libraries, archives and cultural heritage of museums – a search engine that will provide to any of the portal's visitors access to the required information in the culture field.

A significant precondition and factor for a successful implementation of the Cultural Heritage Portal is the Unified National Library Information System, also known as the "**Network of Light**". The Network of Light is an indispensable part of a 21st century project called "**Palace of Light**", which covers all Latvian libraries. Through the Network of Light, all municipal public libraries in Latvia will have free access to the Internet and will be equipped with the most up-to-date computer technologies

for library visitors. An electronic catalogue that covers every part of Latvia will provide information about books or other printings held at any of libraries in Latvia, and will allow each visitor to find the necessary book, order it and receive it in a quick and convenient way from any library in Latvia. As a logical development sequence to the Network of Light, also being created is the **Latvian Digital Library**, which envisages digitalizing library funds to provide Latvian residents with the opportunity to access these funds electronically. Using the Internet, readers will be able to acquaint themselves with both the latest publications as well as rare or unique antique editions in digital form, which physically are stored in different library collections throughout Latvia (Latvia 2008).

4.3.2.2. Inclusive eGovernment

As defined in the National Development Plan 2004 – 2006, the inappropriate development of ICT infrastructure and financing for e-government until now were the main obstacles to introduce and develop e-services and state information systems in Latvia. The development of broadband networks and ICT infrastructure in all regions, large use of ICTs in the public government, SMEs and households to improve accessibility to public services and information and to raise living quality of all citizens, as it is defined in the National Lisbon Program and the National Development Plan 2007 – 2013, are the main tasks to implement in following years.

There are several projects:

The project "**Electronization and Implementation of State and Municipal Services**" which aims at 1) the creation of the organizational, legislative and technological framework for electronization of state and municipal services, as well as for introduction of effective clients' service methods by creating the Clients' Service Canters; 2) implementation of pilot project aiming to electronize 25 state and municipal public services. Basic services are available in State Portal www.latvija.lv.

The project "**Development of Latvian State Portal**" ensures every Latvian and foreign citizen better access to information about Latvia, as well as access to all public e-services by using one portal (see: www.latvia.lv) (Latvia 2008). In July 2010 the pro-

spective students for the first time were offered the opportunity to apply for higher studies in electronic format. It was used by 8950 persons. In 2011 electronic application was offered by 10 universities, over 250 programs and the service was used by more than 11.000 applicants (IZ_ISAP, 2011).

4.3.2.3. The Acquisition of E-skills

To interest the general public in the acquisition and application possibilities of electronic skills (the e-skills), as well as inform where and how to use existing e-skills, improve them, as well as learn more about the country's electronic services (hereinafter – the e-services), how to obtain them and use more conveniently, VARAM in cooperation with the Latvian Information and Communications Technology Association from March 2 till March 5, 2010 and from February 28 till March 5, 2011 hosted E-Skills Week. E-Skills Week (e-Skills Week) is the initiative of European Commission that takes place simultaneously in all EU Member States. More than 41 000 participants, including more than 2900 people who got acquainted with the computer for the first time, participated in e-Skills Week in Latvia in 2011. According to the compiled data of e-Skills Week activity, Latvia took the first place in Europe. That demonstrates the great public interest in the opportunities offered by ICT use. More than 200 partners – ministries, industry stakeholders, local governments, schools and libraries were involved in the organization of e-Skills Week. 709 different activities took place, as well as there was a possibility to connect to the Internet live programs. From 2009 till 2010 e-learning courses of six basic skills of information technology, audio courses and teaching materials for these audiences have been started and completed, as well as methodological tools for the development of librarians to work in libraries with people with special needs and social risk groups in Latvia have been designed. In 2010, the pilot training of 99 people was organized. The developed training resources are available in the library portal (www.biblioteka.lv) to everyone, as well as to librarians working with people with special needs and social risk groups everyday (IZ_ISAP, 2011).

4.4.3. E-resource Use in LLL

The e-learning tools for non-formal education have got purposeful, specific knowledge-based topic content. Non-formal education e-resources can be created and used if:

- the given target group has not got topic formally available (e.g. the Bill & Melinda Gates Foundation; My friend the computer – e-learning program for 1st-4th grade students' computer skills);
- the given topic is not formally available (e.g. TETRIS);
- an alternative approach to content learning has been used (e.g. Thinking Approach – an integrated foreign language learning and thinking).

4.3.3.1. Resources Used in Formal and Nonformal Education

Nonformal learning is often combined with improving the knowledge gained in formal education, for example, the portal "Latvian Nature" (Figure 4-3) by the Faculty of Biology. With the financial support by the Soros Foundation (from 2001 to 2002) an internet storage "*Latvijas daba*" (Nature of Latvia) was launched. It is intended for school children and university students, as well as for specialists of nature and environment and all those who are interested in these issues. In the internet site, one can find material about the geography, plants, animals, biotops, and nature pro

Figure 4-3 The Homepage of Portal "*Latvijas daba*" (latvijas.daba.lv)
tected areas and nature protection laws of Latvia that has been developed by the experts of nature. The materials are rich in photos which can be seen both separately within specific themes and in a joint photo album. There is functioning forum and "*Domu doze*" ‒ a book of questions, suggestions and visitors' comments. There is an internal searcher. The resource site is under permanent development.

The Online Encyclopaedia "*Latvijas Daba*" (Nature of Latvia) (Figure 4-4) gives information about 5218 flora and fauna species of different regions of Latvia. Parts of encyclopaedia are available in books and booklets published by Gandrs Ltd.

Figure 4-4 The Homepage of Online Encyclopaedia "*Latvijas Daba*" (www.latvijasdaba.lv/)

Figure 4-5 The homepage of portal Vade mecum for teachers

of Biology (skolai.daba.lv)

4.3.3.2. Free Materials Designed for Specific Target Groups

Vade mecum for teachers of Biology (Figure 4-5). The internet site for supporting teachers of biology was created within the frameworks of EU social funds project "*Continued Education Program "Professional Development of Teachers of Biology*" Elaboration and Probing" (Nr. 2006/0226/VPD1/ESF/PIAA/05/APK/3.2.5.2./0021/ 0063). The programmes and study materials were created by university lecturers and practising teachers, who offered four units: A – theoretical unit; B – teaching and learning unit for teachers of biology; C – unit of practice; D – ICT usage in biology.

4.3.3.3. Free Sites for Specific Target Groups

Designers themselves engage in passing their own experience to others – they develop materials and place them on the website. These materials can be used by registered users.

Figure 4-6 The Homepage of Portal "Teacher" (www.skolotajs.lv)

Portal "*Skolotājs*" (**Teachers' virtual society**) (Figure 4-6). The portal was established on October 4, 2004 by Digital centre of Ventspils& Microsoft Latvia. The aim of the site skolotājs.lv is to promote the cooperation and interaction of the education staff − teachers, school directors, heads of educational authorities, as well as to raise the awareness about information and communication technologies to improve and develop the learning process.

Skolotajs.lv helps teachers to acquire and use ICT skills, thereby raising their level of qualification, promoting experience exchanges and active implementation of the acquired information. Portal users are mainly teachers, but school administrators and other education professionals do it as well.

The portal has given teachers the opportunity to (a) enter and download educational materials they have produced; (b) publish suggested guidelines for simplifying the study process and organization of work outside the classroom; (c) participate in the portal's on line bulletin board, respond to questionnaires; (d) learn about innovations in educational and extracurricular opportunities; (e) evaluate and improve their computer skills (Trapeniece et al, 2005).

The Thinking Approach (Figure 4-7). Thinking Approach (TA) to language teaching aims at an integrated development of both language and thinking skills of learners. The TA project is concerned with the development of educational technologies neces
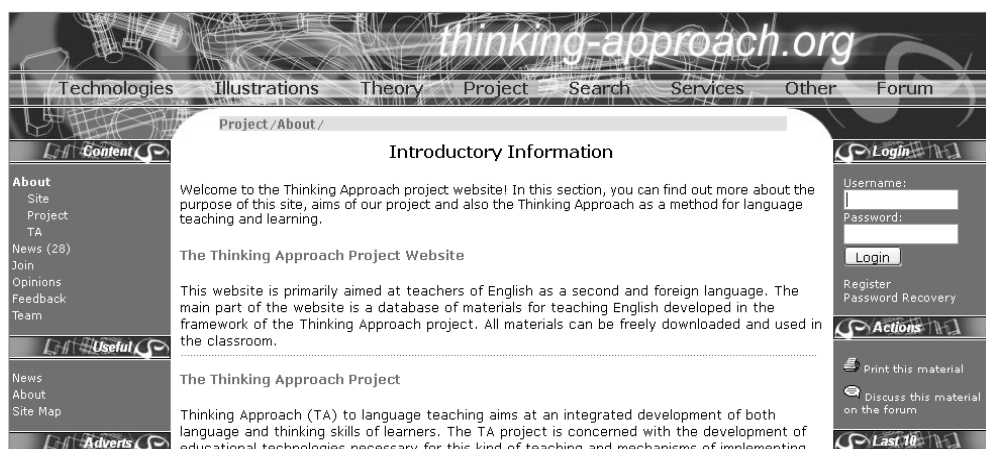
Figure 4-7 The Homepage of Thinking Approach (www.thinking-approach.org)

Figure 4-8 The Homepage of TETRIS (www.tetris-project.org/)

Figure 4-9 The homepage of the Time of IKT (ikt.jrpic.lv)

sary for this kind of teaching and mechanisms of implementing these technologies with various groups of learners.

TETRIS (Figure 4-8). In English, Italian, German, Latvian, France. This is the portal of an international project Teaching TRIZ at Schools (and Industries) supported by the European Commission in the framework of the Lifelong Learning Programme. The site includes various materials for reading on TRIZ, as well as animated presentations of the key ideas. TETRIS is a new way of teaching TRIZ. This project has been funded with support from the European Commission.

The Time of ICT (Figure 4-9). Published by Jelgava Regional Adult Education Center. The site is aimed to help teachers to find the information, e-resources and teaching materials of teachers, which they can use for improving the quality of teaching and learning process.
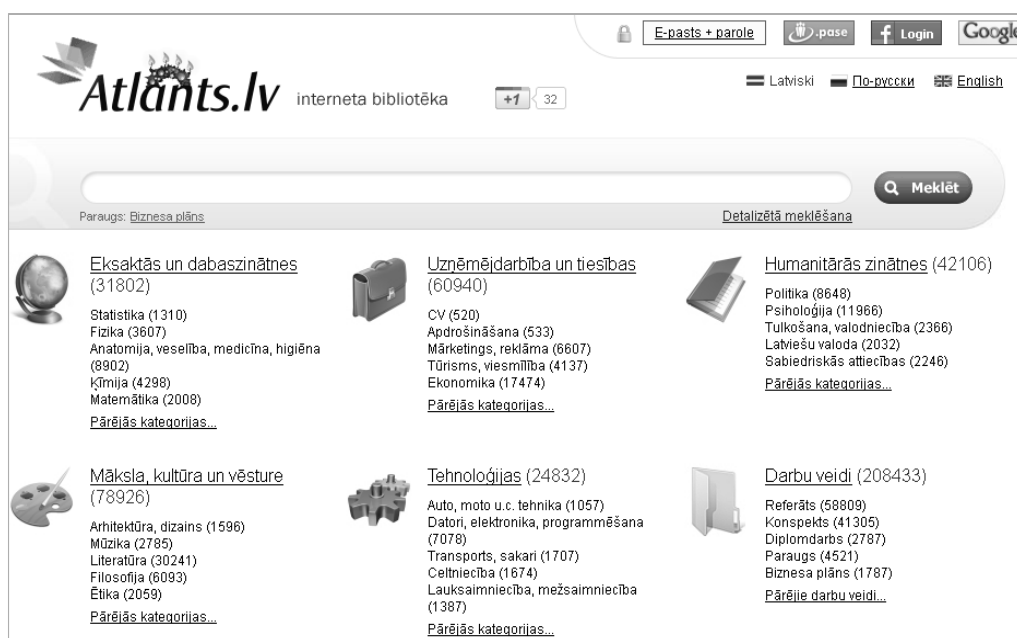
Figure 4-10 The homepage of Internet Library (www.atlants.lv)

4.3.3.4. Charge Storage Resources to Be Used in Formal Education

Internet Library Atlants.lv (Figure 4-10). Published by SIA "CDI". Data base of reports. Some you can get free, but almost all are for some price. There is the respect

of copyright works.

4.3.3.5. Various Free Internet Resources and Storage Formats

Stories (Figure 4-11). Published by SIA "*Ideju Foruma Bibliotēka*". Site for children and their parents. There are interesting stories, games, dictionaries, animations etc.

Figure 4-11 The homepage of Stories (www.pasakas.net)

Figure 4-12 The Homepage of Letonika (www.letonika.lv)

Letonika (Figure 4-12) Published by Tilde. Encyclopedias, dictionaries, books, multi-media, internet, language.

4.3.3.6. Virtual Learning

Museums such as the Natural History Museum of Latvia offer materials and virtual tours (Figure 4-13) of varied exhibitions.

Figure 4-13 The Homepage of the Natural History Museum (virtual tour) (www.dabasmuzejs.gov.lv/)
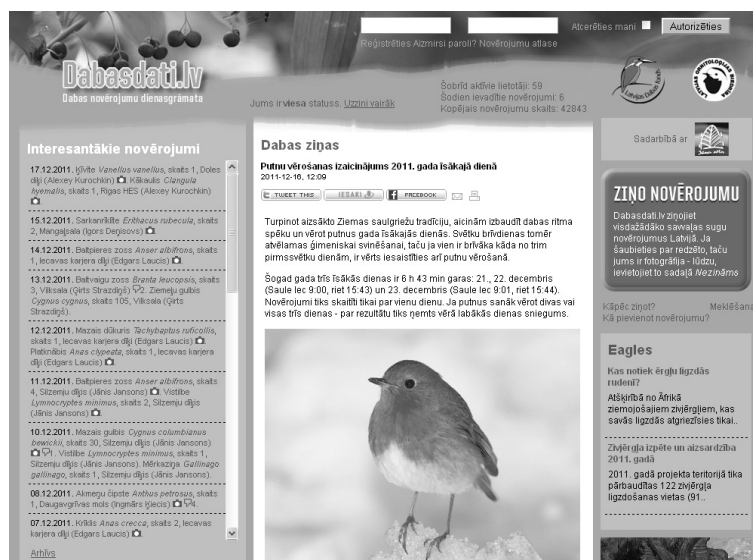
Figure 4-14 The homepage of portal Data of Nature (www.dabasdati.lv)

Virtual learning can also be associated with participation in learning. The representatives of different age and interests may engage in natural research.

Dabas dati (**Data of nature**) (Figure 4-14). Published by Latvian Fund for Nature, Latvian Ornithological Society in the homepage "*Dabasdati.lv*" volunteers can freely share their observations on nature, insert photos taken by them in nature, consult, comment and get information about the species they are interested in. All the information is connected with the coordinate system in the map of Latvia. This can be used in scientific researches, as by adding the description of phenomenon observed, all the precise data are manifested. This home page is supported by Latvia, Iceland, Liechtenstein and Norway.

4.3.3.7. Informal Learning Resources

World Wide Web provides informal learning in all its diversity. The socialization direction of informal learning is provided by social networks (e.g. Accountants Club – with professional orientation; Cālis.lv – with household orientation, etc.).

Cālis.lv (Figure 4-15) – the first Latvian Family Portal. Informal learning about family issues. Interest groups, forums on various topics, games.

Grāmatvežu klubs (Accountants' Club) (Figure 4-16) offers databases, Club Life, Address Book, links directory. There is an opportunity to hear the opinion of specialist, as well as access and download forms, and get support information on how to operate (Handbook).

Figure 4-15 The Homepage of Calis.lv (www.calis.lv)

Figure 4-16 The Homepage of Virtual Page *Grāmatvežu klubs* (www.vgk.lv/lv)

4.3.3.8. Social Networks

There are widely available social networks in Latvia. Latvian-made portal draugiem.lv. is widely used by society, as well as networks Twitter, Facebook, YouTube, LinkedIn, etc.

5   Typical cases of e-Learning for Lifelong Learning

In this chapter there will described three cases of ICT-use in different areas of lifelong learning (in formal and informal education). The first case is typical blended e-learning study module "Basics of Course Management System Moodle" of programme "Content and Language Integrated Learning for Six Subjects (history, biology, mathematics, economics, literature, cultural studies)" of the Faculty of Computer Science and Information Technology of Riga Technical University focused on learning content and context in Riga Technical University in the higher education.

The second case is typical electronic learning in Inter-university Master's Programme on Educational Treatment of Diversity at the University of Latvia — that is also typical pattern of blended e-learning study programme in the formal education area, but it is untypical e-learning form focused on the development of students' learning competence.

The third case is from the informal education area — using of web based solution Uzdevumi.lv.

All samples will be view based on the e-learning indicators defined by B. Fetaji and M. Fetaji (2009): (1) learner education background; (2) computing skills level (3) type of learners, (4) their learning style and multiple intelligence, (5) obstacles they face in e-learning (e-learning barriers), (6) attention, (7) content (suitability, format preferences), (8) instructional design, (9) organizational specifics, (10) preferences of e-learning logistics; (11) preferences of e-learning design; (12) technical capabilities available to respondents; (13) collaboration; (14) accessibility available to respondents; (15) motivation, (16) attitudes and interest; and (17) performance-self-efficacy (the learner sense their effectiveness in e-learning environment); (18) learning outcomes.

5.1 The module "Basics of Course Management System Moodle" of programme "Content and language integrated learning for six subjects (history, biology, mathematics, economics, literature, cultural studies)" of the Faculty of Computer Science and Information Technology of Riga Technical University (60 hours)

(1) Learner education background

Teachers of secondary schools.

(2) Computing skills level of the learners

Basic knowledge and experience in ICT usage, basic skills in Microsoft applied software products like MS Word, MS Power Point, MS Excel.

Basic skills in Internet browsing and e-mail, primarily in Web-mail like Gmail, Inbox. Very little knowledge of social networks and almost no experience in their usage.

(3) Type of learners

All types of learners (active/reflective, sensing/intuitive, visual/verbal, and sequential/global) are represented in this course.

(4) Vary of teaching methods

Vary of teaching methods - videoconferences and online lectures - support approach to teaching adults. For many teachers there are focused on linguistic ("word smart") or logical intelligences (("number/reasoning smart") as well on interpersonal intelligence ("people smart") and intrapersonal intelligence ("self smart"), and spatial intelligence ("picture smart").

(5) E-learning barriers)

An educator observation during the course shows the main barrier is the microphone phobia. Even for very experienced teachers with long professional life and permanent presentations during classroom's lessons it is very uncomfortable to speak in microphone especially for invisible audience.

(6) Attention

No problems with concentration for them who easily apprehend mastering subjects. A little problem is with them who have not enough previous background. However as our teaching methods envisage set together remote group of trainees, always there are neighbours who are ready to assist and help to cope with unclear things.

(7) E-content

The focus is not on e-Learning, but rather on e-Teaching. So the content does not differ essentially from that in the classroom.

(8) Instructional design

During remote online lessons theoretical materials are alternate with practical exercises and tests, so there is permanent feedback from trainees allowing to remote teacher to adapt to readiness of particular audience and their specific requirements.

(9) Organizational specifics

The main requirement for arranging of remote online lesson is the presence of appropriately trained moderator in the remote auditorium. Such training has to be done in a good advance before remote lessons and virtual communication tools like Skype is absolutely enough for normal training of future moderator. Such person must have at least intermediary ICT knowledge and skills.

(10) E-learning logistics

Interoperability
Like for any teaching materials.

Pricing
No additional costs.

Performance
No experimental data, however intuitively it is like 75-80% of classroom's lessons.

Content development
Like for any classroom's lessons.

Communication tools
Specially designed platform consisting of one server (any server allowing remote control) and two personal computers – one on the remote teacher side (PC with connected headset with microphone) and another one on remote classroom (usually computer classes of participating schools) with connected projector, speakers and microphone. No installation of additional software required.

Student Involvement Tools

Personal computer for each participant.

(11) E-learning design

Like for any classroom's lessons.

(12) Technical capabilities

Communication tools – specially designed platform consisting of one server (any server allowing remote control) and two personal computers – one on the remote teacher side (PC with connected headset with microphone) and another one on remote classroom (usually computer classes of participating schools) with connected projector, speakers and microphone. Installed software for video-audio communication is required on both teacher's and trainee's computers (we use Skype).
Student involvement tool - personal computer for each participant.

(13) Collaboration

Two layers of collaboration – one for video-audio communication between teacher and students, another one for simultaneous working with the same instance of mastering software. Second layer is realized by simultaneous remote access to the application executing on the server.

(14) Accessibility

Described solution is satisfactorily working even on narrow internet connection. Recommended number of simultaneously participated trainees – not more than 10 people.

(15) Motivation

There are at least two driver for participants:

- Chance to accrue certificate required to continue working as a teacher (Latvian requirements).
- Ability to partially liquidate a gap between ICT knowledge and skills of a

teacher and his (usually her) pupil.

(16) Attitudes and interest

See above.

(17) Performance: self efficacy in e-learning

Not applicable in our case.

(18) Learning outcomes

Increasing of ICT knowledge and skills.

5.2 Master's Programme "Educational Treatment of Diversity" at the University of Latvia

Short description of the context

The purpose of the participating Universities is to follow the recommendation of the European Ministers responsible for Higher Education, who issued the Communiqué on "The European Higher Education Area – Achieving the Goals", after their meeting in Bergen, in May 19–20, 2005. The Communiqué states: "We (…) call upon all national authorities and other stakeholders to recognise joint degrees awarded in two or more countries in the EHEA (European Higher Education Area). The Universities offering the same study course, working together to implement it and offering the same Joint Master's Degree are the following ones:

- Universidad Nacional de Educación a Distancia (National University of Distance Education) – UNED, Madrid, Spain;
- Karla University, Prague, the Czech Republic;
- University of Latvia, Riga, Latvia;
- Ludwigsburg University on Education, Reutlingen, Germany.

Inter-University Master's Programme content consists of two parts: compulsory (Part A, including the research memory/master's thesis) and optional (Part B), as defined by the Statute of the Study Programmes of the University of Latvia, Senate Decision of the University of Latvia No. 236 of 29.03.2004., Section 4 "Master Study Programmes".

The length of Master's programme in pedagogy is 4 semesters (full-time) and 5 semesters (part-time) with an amount of 80 credits corresponding to 120 European credits (ECTS). Both programmes are organized in modules. Contents and learning activities of the modules are integrated and sequentially presented, in order to promote students' competence and to offer a balanced allocation of time. In order to success-fully achieve the objectives of the Master's programme, meet challenges and facilitate the students' competence, a variety of learning and teaching strategies are used during the learning process.

The language of instruction in the University of Latvia is Latvian and English; Spanish will be used 20% of the study period. The English or the Spanish language is used to acquire scientific information (reading with understanding) and informal communication with guest speakers. The lectures of the guest lecturers are translated into Latvian.

(1) Learner background

Learner educational background

The Master's Programme on "Educational Treatment of Diversity" is a post-graduate course whose target audience is students with Bachelor's degree from Latvia, EU, and other countries, teachers and other professionals who work or who will work in education or other areas with people with diverse special needs. The Programme is offered to those who have got a previous academic degree necessary to be registered into a post-graduate course; this implies the necessary competencies to be trained to intervene in the diverse options presented within this professional arena.

Applicants with the second level professional higher education or a Bachelor's degree (180 ECTS or 120 credit points in Latvian credit point system) are enrolled in the inter-university master's programme. As a result, candidates to the study course need

to demonstrate clearly that they have previously obtained a University Degree of the Second Cycle, which can be in the form of:

- License Degree (120 credits);
- Science degree: engineer, architect, lawyer, teacher, etc.;
- Other equivalent degree.

According to the European Framework for Higher Education, candidates will need to demonstrate clearly that they have obtained the required accreditation of *a Grade Degree and that they have successfully passed a minimum of 180 Credits or 120 Credits*.

Requirements for previous education in all four participating universities are the same. The students in the programme are economists, lawyers, school teachers, sociologists, journalists, seaman's staff's managers, college teachers, leaders of non-governmental enterprises, special education teachers, foreign language teachers, translators, designers, project managers, pre-primary school teachers, parents of children with special needs, social workers, sport coaches.

Learners' cultural background

The students of the programme have mostly multi-cultural background. They have different nationalities: Latvian, Russian, Spanish, and Estonian. All students are fluent in 1 – 2 other languages. Only in some cases the students have mono-cultural background (Latvian or Spanish), but they have got good knowledge in the second language.

Educational experiences outside traditional classroom

The additional condition in the University of Latvia: required the English or the Spanish language proficiency, which represents TOEFL (Test of English as a Foreign Language Test) the Internet-based for at least 80 points or Paper-based at least 550, or IELTS (International English Language Testing System) at least 6 points or Cambridge Certificate of Proficiency in English – C; Cambridge Certificate in Advanced English – B, a successful assessment in the English language in the previous education document, or an entrance assessment, except cases when previous

education is obtained in English or Spanish.

The mastery of main European languages (English, Spanish, and German) is taken into account according to the specificity of the programme and university lecturers.

Experience related to interchange is

- In special needs educational action area;
- In the area of educational action;
- Other experience unrelated to the field.

There are some students, who have experience in all three areas, most students have experience in one of them, and there are no students without any experience at all.

How students construct meaning from prior knowledge and connect it with the new experiences

Academic content of the programme is organized in modules. The e-contents and e-learning of module activities are integrated and sequentially presented, in order to promote students' competences and to offer a balanced allocation of time. All the courses are online and available face to face. The course materials are web based. In order to achieve the objectives of the Master's programme successfully, meet challenges and facilitate the students' competence, a variety of learning and teaching strategies are used during the learning process. The Master programme particularly focuses on "student's learning" more than on Professor's teaching. The programme is based on students' performance, particularly estimated in terms of competences. By using such competences, the students create knowledge to generate solutions in diverse projects or situations. Essentially, content used to promote competences helps students to be appropriately prepared to:

Know: what is learned, what is remembered, and why it was learned;

Know what and how to do: ability to choose what must be done and be successful on which is done;

Know how to be: by assuming his/her own duties and responsibilities.

More specifically, to achieve the above mentioned objectives, the course provides the conditions and gives the instruments for the participants to develop the necessary

competencies that will be:

- Generic: useful to any academic field, they refer to knowledge management, in general;
- Pedagogically basic: necessary to any qualified activity;
- Specific: appropriate to particular professional interventions.

(2) Computing skills level of the learners

All students have skills relevant to computer users. Most students have experience in use of Internet, e-mail, chatting tools but do not have any experience in use of virtual platforms, forums, and video conferences. There are no requirements related to ICT knowledge for matriculation.

(3) Type of learners

Students are very diverse and all types of learners are presented.

(4) Vary of teaching methods

All didactic materials are prepared with by respecting different types of learners in accordance with the didactic materials writing guidelines developed by the National University of Distance Education (UNED). The guidelines have the unite structure; unite approach to visualization and presentation of content with aim to respect different types of learners. Each module includes specialist vary of teaching methods; one module is specialists on new and traditional technologies using related to special needs of learners. All lectures of visiting-professors are face-to face and online, regular lectures are developed as didactical materials for the students' self-directed Web-based learning. Phone, consultations via skype, and seminars – face-to face and online, forums are provided.

(5) E-learning barriers

E-learning barriers are related to students' well-being in a new learning situation which is influenced by following factors:

- motivation as an individual's receptiveness to particular concepts as well as the desire to foster deeper network connections;
- emotions as the influencing factors that enact other nodes and apply weighting scales to the network elements. Emotions and person's feelings play an important role in how the person values nodes and permits the presence of contradictory perspective;
- experience as a catalyst for both acquiring new nodes and forming connections between existing nodes. Experience is also a significant aspect of network creation. A great deal of people's learning comes through experience by informal means - workplace, participation in the projects, communication in forums, skype, chats etc. (Birzina et al, 2010, 2012)

(6) Attention

In e-learning the main focus is paid to help the students participating in the course to understand and assimilate content of the course modules, to orient them to complete assignments suggested during the course, to clarify doubts or misunderstandings, to help them in any academic problem and to motivate them to successfully finish the course. Therefore, the consultations are not organized as lectures, but as inter-communicative activities in which students can have direct or online contact with professors, lecturers and receive concrete answers to the raised questions.

During the inter-communicative activities, discussions on issues concerning the content of the specific modules are organized with the participation of Latvian professors, professors from other universities, and foreign visiting professors. In some cases, the acquisition process of the module's topical issues is offered in mini-lectures with online translation delivered both by Latvian professors and university lecturers, and foreign visiting professors.

(7) E-content

To establish a new field of study from the perspective interest viewpoint of Latvian state, the survey with employers has been performed. The representatives of the

Ministry of Education and Science, universities in Latvia, minority schools and other institutions have been interrogated, as well. The respondents emphasized the topicality of the programme in the connection with the discussions in Latvia and European Union about the rights of children and young people in relation to critical evaluation of social and educational policy in the inclusion aspect. It means that all aspects of life areas should offer possibilities to people with diverse special needs. The way of thinking and a view to the restrictions should be changed; the social-pedagogical thinking and cultural dialog should be developed in order to accept the special needs as an alternative. The employers noted that schools have inadequate human resource capacity for the implementation of new methodology, information and communication technologies, and multilingualism, so they believe that the Inter-University Master's Programme gives new possibilities for Latvian teachers and other professionals in their professional development (raising the professional competence level).

Additionally, the employers noted that since Latvia is a part of the European Union, the need to be integrated into the common European education system has increased, the cooperation with different European universities is becoming important. The necessity of united bachelor, master and doctoral programmes and their recognition at the European level has increased. The development of the programme "Educational Treatment of Diversity" is of special importance in this context.

The data of the survey show that the programme will promote the understanding about the rights of every person to their learning, cooperation, and co-existence, about cultivation of cultural education from the very childhood. Topical question is "How to promote that?" Thus, the offered international master's programme is topical from Latvian national viewpoint.

An international survey to employers has been carried out in 2007 – 2008 with the participation of Latvian entrepreneurs (*DIHK*, *Deutscher Industrie- und Handelskammertag 2008*). The survey questionnaire was devoted to the main competences that employers expected from graduates of master's programmes and which were necessary for their work in enterprises (8 competences ought to be selected from 26). According to the data of the international questionnaire the following competences had been chosen for next 6 years:

- Teamwork – 71 %;
- Self-organization of work – 63 %;
- Readiness to participate – 60 %;
- Communication skills – 59 %;
- Extensive knowledge of study subjects – 52 %;
- Sense of responsibility – 50 %;
- Ability to analyze and decide – 49 %;
- Ability to assume the workload – 33 %;
- Foreign languages – 33%;
- A desire to achieve succeess – 33 %.

The e-content of international Master's Programme "Educational Treatment of Diversity" focuses on these competences.

The programme integrates research and academic studies. Description of study courses, organization and realization of the studies reflects the proportion of independent work in the interactive e-learning using information and communication technologies and at least two European Union languages. The programme is designed to improve students' general, basic and special skills. The modular system of the programme ensures the advancement of this goal.

E-Book series of 24 Books, 2010- 2011 12 Books published and used since 2011 at 3 European Universities

E-Content to the Educational treatment to diversity:
TRATAMIENTO EDUCATIVO DE LA DIVERSIDAD CULTURAL
EL PRÁCTICUM EN EL TRATAMIENTO EDUCATIVO DE LA DIVERSIDAD
EL PRÁCTICUM EN EL TRATAMIENTO EDUCATIVO DE LA DIVERSIDAD
EL PRÁCTICUM EN EL TRATAMIENTO EDUCATIVO DE LA DIVERSIDAD

Figure 5-1 E-content for e-learning

The e-content of the study programme was developed in cooperation with all participating universities. Following the agreement on the guidelines of the programme, all participating universities offer students united e-content formed according to the same criteria, organized by the united structure and using equivalent e-didactic materials (see Figure 5-1).

E-content of the study programme is focused on the integration of academic study and research, information and communication technologies and using at least two languages to expand innovative practices, research and to increase competitiveness in the labour market (Statute of the Study Programmes of the University of Latvia, Senate Decision of the University of Latvia No. 236 of 29.03.2004., Section 4.3.), ensuring that the students, who have completely the acquired programme, will have developed their competence and will get the following study results (Table 5-1):

Table 5-1 E-content orientation on learning outcomes according to UL quality introductory structure

Comparison aspect	LU quality frame	The inter-university programme conformity with LU quality frame
	Student has demonstrated his/ her ability to do independent and responsible professional work (taking into account scientific ethics) and to follow studies in doctor's study programme	Student has demonstrated his/ her ability to do independent and responsible professional work (taking into account scientific ethics) and continue studies in doctor's study programme
Researcher thinking (generalization competencies) A, B parts	•analyzes, synthesizes and structures scientific conclusions in theoretical approaches; •critically evaluates tendencies of the theory development; •uses knowledge in context of diverse situations; •uses available scientific discipline sources and literature, int. al. widely used foreign languages; •critically formulates and systematically analyzes difficult scientific	•To critically structure basic approaches of scientific contents; •To critically differentiate tendencies of epistemological structures; •To place knowledge into social and cultural context; •To carry out practical transfer of knowledge; •To use available sources of particular knowledge areas; •To communicate academic contents in some widely spread foreign lan-

	and research problems; • expands scientific discipline conclusions, using diverse researches; • effectively manages his/ her study realization; • organizes knowledge in structured and systematical way and integrates these scientific disciplines in directions of development in macro contexts.	guages; • To increase knowledge by diverse kinds of research; • To appropriately and profitably manage knowledge; • To organize knowledge in a structured and systematic way; • To extend knowledge throughout scientific, cultural and practical contexts; • To integrate knowledge into trends and approaches of macro-contexts
Research process management and guidance (basic competencies) A, B parts	• realizes and manages independent studies and research in difficult and non-standard situations, that demand new strategic approaches; • uses contextual and personal preferencies participating in projects; • undertakes projects and plans that are really realizable; • organizes research process according to methodological systems to successfully realize plans and projects; • uses necessary procedures, methods and instruments to evaluate projects and plans; • successfully uses information technologies and resources; • actively participates and cooperates in team to work with different professionals and non-professionals;	• To carry out and promote authentic leadership; • To take advantage of contextual and personal implications affecting action projects; • To promote self-reliance on one's own abilities; • To assume the risk of implementing new challenges; • To empower initiatives to face and solve problems; • To transfer theoretical knowledge into practical use; • To design projects and plans valid to be implemented; • To organize and follow through methodological systems to effectively implement plans and projects; • To use the necessary procedures, techniques and instruments to evaluate projects and plans; • To manage and solve conflicts among people and groups;
	• works out and realizes research activities that are based on process and actions practical development for person's life and work situations improvement; • evaluates developments, processes	• To give advice accommodated to needs; • To empower the feeling of membership of groups, communities and society; • To promote solidarity among people

		living or working together; •To reinforce dialogue among persons and communities; •To effectively use communication techniques and resources; •To actively involve and intervene in team working with diverse professionals; •To design and implement research activities focused on practical improvement of processes and activities; •To use negotiation techniques in order to articulate commitment assumptions and to make decisions; •To evaluate designs, processes and results; •To assess impact repercussions of knowledge development and of knowledge learning; •To produce scientific and academic writing documentation.
Professional action quality promotion (professional action specific competencies) B part	•solves specific problems that are necessary for researches and/ or innovation to develop new, int. al. in different spheres, integrated knowledge, methods and procedures; •looks in perspective and develops practical approaches in corresponding research field or economic sector, being based on scientific, theoretical and/ or experimental methods, and the newest tendencies; •takes on the responsibility about the group's professional competent action development, to direct the action process to the strategic results achievement. •takes reasoned decisions and if necessary makes analysis, and as	•To assume role, functions and tasks of professionals dedicated to educational treatment of diversity; •To continually improve professional activity; •To use the most appropriate approaches to educate people with special diverse needs; •To handle international and national regulations applicable to the education of people with diverse special needs; •To adapt international and national experiences on educational treatment of diversity; •To use the necessary techniques and instruments to detect and evaluate people's diverse special needs; •To design curriculum adaptations accommodated to people with diverse special needs;

	a result creates a basis for taking decisions.	• To design programmes of educational intervention suitable to practical implementation with people having special diverse needs; • To implement programmes of intervention with people having special needs; • To motivate people with diverse special needs for them to promote their own personal abilities; • To carry out student's tutorial care; • To implement methodological innovation on educational treatment of diversity; • To adequately use didactic material suitable to people's special needs; • To handle technological resources accommodated to special needs educational treatment; • To deal with procedures, techniques and instruments required to assess processes, results and impact of people's all dimensions development; • To validate design, implementation and results of educational intervention with people having diverse special needs; • To choose and implement the required methodological strategies to promote personal development of people with special needs; • To appropriately advise people with diverse special needs; • To promote self-knowledge and self-esteem in people with diverse special needs • To promote the highest possible autonomy and personal development in people with special needs; • To promote cooperative learning for people with special needs;

		• To promote interpersonal communication of people with diverse special needs in the most widely used foreign languages (particularly of the EU); • To set up and use the appropriate relationship with families of pupils or students with diverse special needs; • To promote attitudes and behaviours in favour of integration and inclusion of people with diverse special needs in every educational, familiar and social context; • To suggest and intervene in research activities related to the educational treatment of diversity; • To guarantee the necessary requirements to facilitate integration and inclusion of people with diverse special needs.

The intellectual copyright of the developed e-content and study materials belongs to each author, accordingly to the national and international rules that protect intellectual property. In the case of violation of these rules, the affected author may proceed according to the legislation in order to protect his rights.

(8) Instructional design

Student's evaluation will be particularly oriented to check that the defined aim and objectives have been reached and that the required competencies previously set up have been acquired. In order to guarantee a balanced valid and reliable assessment, the Master program uses diverse proceedings, techniques, and instruments of evaluation:

- Contextualized: involving knowledge, aptitudes, and abilities;
- Criteria-based: referred to competencies;
- Continuous;
- Formative;
- Self-evaluation: Self-directed to study quality and effective interactions.

As the study course has been designed as an interactive e-learning, student's evaluation tries to accommodate to such modality. In order to obtain the necessary information about the student and evaluate his performance during the acquisition of the entire programme and at the end of the programme, possibilities of the Moodle learning environment are used. At the beginning of every activity, students receive a written description of study possibilities and basic requirements of the course together with the correspondent assessment percentage. Programme's activities are assessed throughout the study period, fixed in the section "Moodle tasks", and taken into account in the final assessment.

Once the study course starts, a diagnostic preliminary evaluation will be done, in order to check the student's initial situation and his/her expectations from the course. For such purpose, a written instrument – like a questionnaire – is sent together with the first Circular Letter to all the participants. Such instrument gives the participants the opportunity to answer questions referring to her/his professional situation (particularly related to Educational Treatment of Diversity), their reasons for registering in the course, expectations from the course, and other aspects or observations they want to share. The students complete this self-assessment sheet for each semester and download it on the Moodle platform.

Apart from this preliminary evaluation, the participants show their academic performance through their activities and through their marks obtained in some exams. All data and information obtained from each particular participant form part of the global and final evaluation that will be included in the final evaluation LUIS register: this will be signed by the course Director and will be sent to the responsible service in each participant University. Information for each student's final assessment results from several aspects, including Master's research assessment. Master's research memory/thesis, as required by the standard, is a written work related to any aspect of educational treatment of diversity, and in which students expose their research contents, processes, results, and proposals.

At the end of the course, the participants will be asked to fill in self-assessment. Although this activity will not have an academic repercussion, the participant's opinion will be very useful to the course team and to the managers and organizers of

internal evaluation.

(9) Organizational specifics

The programme is implemented by the professors who have the expert status of the Council of Latvian Science and young scientists – associate professors, assistant professors, as well as principal investigators, researchers and assistants with doctoral degrees or doctoral candidates of the Pedagogic Science Institute. In such a way the renewal of the academic staff is assured. In doctoral studies new scientists are involved in the process of implementation.

The programme is characterized by another important aspect – dialogic learning. The programme provides further education not only to students, but also to lecturers themselves, fostering a critical review of their own, Latvian, and international experience in addressing diversity, learning from colleagues and students' experiences, especially in the use of ICT and foreign language fields.

(10) E-learning logistics

Interoperability

Technical issues include ensuring of an involvement in the continued development of communication as the main aspect of maintaining interoperability is provided by UNED and technical engineering staff of the Faculty of Education, Psychology and Arts of the University of Latvia. The e-learning environment is open for students from the participating universities and Erasmus students by access registration. The Microsoft software is provided by the University. The expensive technological tools such as Video-conferencing are provided by UNED.

The Scientific Institute of Pedagogy as an e-learning provider is included in European Research gate and Institute's portal (www.pzi.lu.lv) is connected to the portals of the University (www.lu.lv) and Faculty (www.ppmf.lu.lv) with access to Libraries and Databases, and is open for public access.

Module professors have got the creative rights as editors, students – creators of individual profiles and group work. All data are archived and used for intergenerational learning of students.

Also apart from the issues related to the manner in which information is described and disseminated, the decision to make resources more widely available has implications for the concerned organisations their staff, and the end users.

As traditional boundaries between institutions and disciplines begin to blur, researchers increasingly require access to information from a wide range of sources, both within and outside their own subject area. Complementing work in the research library sector, important initiatives are also underway in related information providing communities such as national and local government, public libraries, etc.

Data Protection is guaranteed with e-resources, portal and moodle Copyright 2007. Issues related to the language in which resources are provided and described become increasingly significant when dealing with those delivered from or provided for other countries. Cultural issues, as well, are magnified on an international arena with usage practices, expectations, and requirements varying from country to country.

Pricing

The funding sources of the inter-university Master's programme consist of budgetary resources of the University of Latvia assigned to LU PPF Education Department and to PZI action, which cover government grants for studies and students' tuition fees. Fifty-seventy percents of professors working in the programme have their permanent work place in the university and the minimum amount of work in the programme is 3 credits (programme director's minimum load is 5 credits). Consultant's (tutors) work in the programme is 0,25-1 load according to the matriculated students' number. Professors of other participating universities are university lecturers' team members as "participative professors" or co-professors and they are rewarded in their universities. Within existing financial resources (income from the programme), professionals with relevant academic training and practical experience are invited; they are working in public or private institutions as professors, university lecturers, or other professionals in connection with a diversity of pedagogical aspects.

The realization of such kind of programmes has been started in recent years, from 2004, in order to unify European educational space, or for the purpose to make the education available for students in other continents (Erasmus Mundus Programme

http://ec.europa.eu/education/programmes/mundus/projects/index_en.html). Before the year 2004, the master's programme has been treated as post-graduate studies for applicants with completed studies of higher education. Duration of a full-time study programme is normally 12 months (3 semesters), but part-time studies last up to 5 years. There is quite a lot of such programmes in Europe (http://www. graduatecenter. org/en/master-courses/master-courses.html). In this aspect, the common European education programmes differ from previously implemented ones (see Table 5-2).

Table 5-2 Programme's inclusion in the unitary European education space

Requirements of unitary European education space	LU inter-university master's programme "Educational treatment of diversity"	European Masters in Lifelong learning-Policy and Management	Master in special education needs
Volume of programme	The inter-university master programme consists of 120 ECTS, where 30 ECTS correspond to the thesis.	The inter-university master programme consists of 120 ECTS, where 20 ECTS correspond to the thesis.	The inter-university master programme consists of 90 ECTS, where 30 ECTS correspond to the thesis.
Relation of parts A and B	The compulsory part of the programme (part A) consists of 80 credit points with thesis included; compulsory optional part consists of 40 credit points	The compulsory part of the programme (part A) consists of 70 credit points with thesis included; compulsory optional part consists of 50 credit points	The compulsory part of the programme (part A) consists of 60 credit points with thesis included; compulsory optional part consists of 30 credit points
Length and realization form of the programme	2 years full-time; 2,5 years part-time	2 years full-time	1 year full-time
Programme's realization type	Interactive e-learning modality	Not mentioned	Not mentioned
Planned results of the programme	Students' competences	Students' competences	Students' knowledge and skills
Study fee	2500 LVL	15 000 EUR	13 000 EUR

Thus, in comparison with the Lifelong Learning Master's Programme (www.lifelong learningmasters.org; http://www.lifelonglearningmasters.org/site.aspx?p=43) – one of the five programmes officially registered and accredited in all participating countries programmes http://ec.europa.eu/education/programmes/mundus/projects/ eduen.html, is similar to the LU inter-university Master's programme (80 CP, or 120 ECTS) and the structure (structure of both compulsory and optional parts). The programme is designed in order to develop students' competences and corresponds to the recommendations of the European Union. Consequently, the Master's programme has an innovative nature in Latvia and entirely incorporates within the unitary European educational space (Table 5-2) but the pricing of the current programme is lower.

Performance

Performance improvement occurs at different levels:

- individual;
- team;
- organizational;
- institutional.

E-learning quality is provided by:

- Design;
- Internal organization: structure, distribution of responsibilities, strategic documentation;
- Resources: materials and technology;
- Processes and procedures involved in its implementation: tutorial system, assistance to students;
- Obtained results: achievement of competencies and objectives, student's satisfaction, staff's satisfaction;
- Impact produced in strategic areas (particularly those related to diversity treatment): including employers, family, community, and academics' satisfaction;
- Internal (LU), national, and international quality assurance agency.

By following the European Council of Ministers of Higher Education, on its Recommendation 98/561/EC, of September 24 1998 (on European Cooperation in Quality Assurance in Higher Education), the guarantee of the Master quality assurance will be adapted to the following features:

- Autonomy;
- Accommodation to methods and procedures;
- Internal and external intervention;
- Involved parts intervention;
- Publicity of results.

As it was proposed by the European Ministers of Higher Education met in Bergen (19 – 20 May, 2005), the master's degree adopts the standards and guidelines for quality assurance as proposed by the European Association for Quality Assurance in Higher Education. According to the Association, the basic standards for internal quality assurance are the following ones:

a) Policy and procedures for quality assurance;
b) Approval, monitoring and periodic review of programmes and awards;
c) Assessment of students;
d) Quality Assurance of teaching staff;
e) Learning resources and student's support;
f) Information system;
g) Public information.

The quality of the Inter-university Master's Programme is ensured by the Coordination Commission governance: Commission Director Samuel Gento (Spain), four members of the Commission: Rainer Trost (Germany), Irina Maslo (Latvia), Iva Strnadova (Czech Republic) and Domingo Gallego (Spain), as well as three commissions secretary: Cristina Sánchez (Spain), Jorge Pina Mula (Spain) and Ana Martín Cuadrado (Spain). The Programme Coordination Commission will seek to obtain the Master's programme quality recognition in other external agencies, especially in European Union and United States organizations. For this purpose, contacts have been established with agencies such as the European Network of Quality Assurance.

As the involved Universities are official institutions of countries that have signed "The Hague Apostille" approved by The Hague Convention of October 5 1961, the legalization is not necessary for public documents issued by State Parties in the Convention.

At the end of the Master's course, its director extends a Certificate to accredit to each participant that, as s/he has passed all the administrative and academic requirements to obtain the Master's Degree in "Educational Treatment of Diversity", s/he is proposed to receive the corresponding Master's Degree, extended by the University where s/he has registered her/himself and signed by each responsible authority in all the involved Universities.

Although each involved University will follow its own regulations to issue the Master's Degree, the Course Coordinating Commission formed by each one of the Course Directors in each one of them define a unique format for this Accreditation, which will be used by all the involved Universities. The programme offers students the opportunity to acquire an international master's, and to prepare for academic studies in the international doctoral programme "Educational Treatment of Diversity".

Content development

Students are involved in the study process for the organization and its continuous development. Students are proposing debates in real life and virtual platform, offering to discuss various topics of study in forums and chat rooms. For example, in autumn 2008, launching the Master's studies, students were urged to study two related discussions on the following topics: Copying and translation PDF text (received 33 students and lecturers' responses); Useful references (received 47 students and lecturers' responses). Studying A-3 module, Students themselves have proposed eight discussions on the practical activities, their evaluation criteria, the difficulty of learning material, learning, etc. Many students are actively seeking further reading in libraries and on the Internet and recommend it to their course members in study forums. Every year students (in Spain and in Latvia) forward their proposals for the Programme Coordination Committee. For example, in academic year 2007 – 2008 in Spain, taking into consideration the students' proposals, the content of one study

course was revised. In academic year 2008 – 2009, following Latvian students' proposal, it has been decided to realize studies in joint UNED and University of Latvia e-environment in academic year 2009 – 2010. The Latvian students actively participate in the programme's enhancement, expressing their suggestions and additions, for example, while they were in Spain under the Erasmus programme.

Communication tools

Communication with students is done by telephone, e-mail, postal mail or any other possible means. They are periodically and regularly at students' disposal to assist them at e-environment, and even in face-to-face if students came to face-to- face activities (Figure5-2):

Lectures
Seminars
Discussions
Workshops

Verbal and non-verbal
communication, etc.
Non-formal and informal
communication

Conferences

Individual and group's
consultations

Figure 5-2 Face-to-face transcultural communication environment with online participation opportunity of e-learning

They are also responsible to periodically intercommunicate with the participants by using the technological support of Information and Communication means (Figure 5-3):

Teleconferences

E-materials   Chat rooms

E-mail

Phone

Forums

E-phone (Skype)
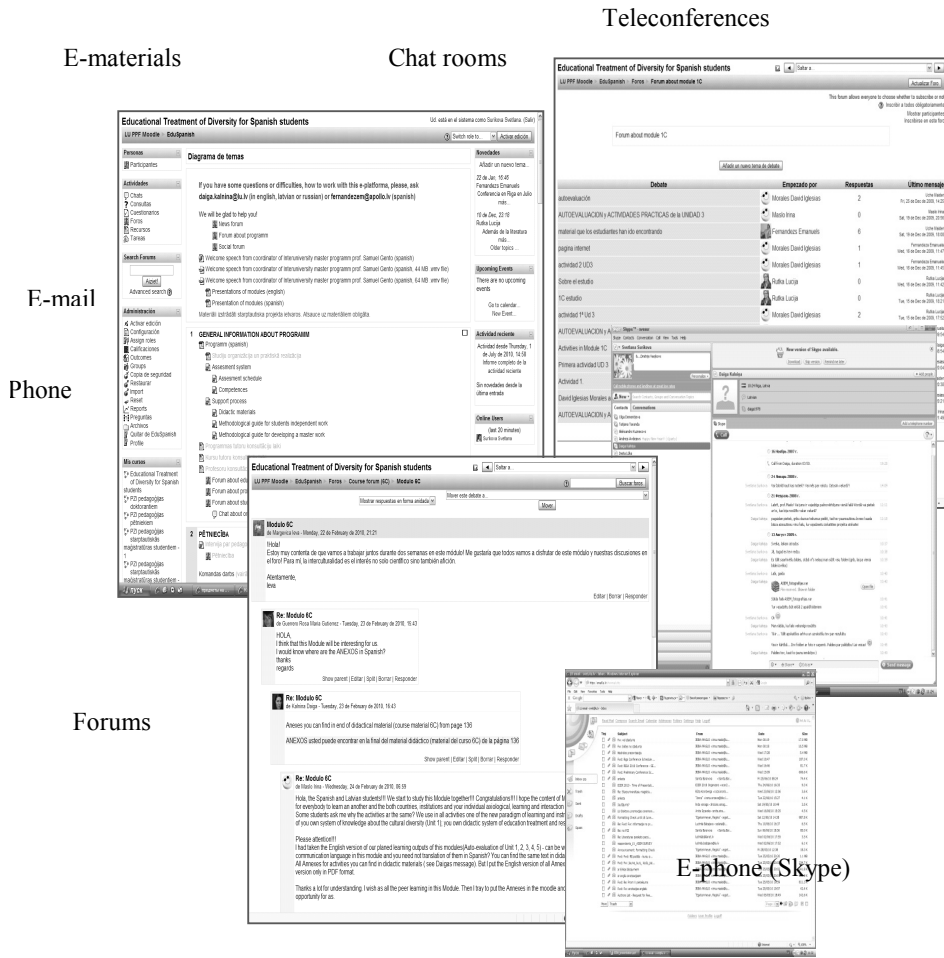
Figure 5-3 Virtual transcultural communication environment for e-learning

Student Involvement Tools

The main focus of e-tutoring and e-mentoring is to facilitate students success related their needs (Table 5-4):

● to help them solve their doubts and problems and orientate them;
● to obtain the necessary successful result.
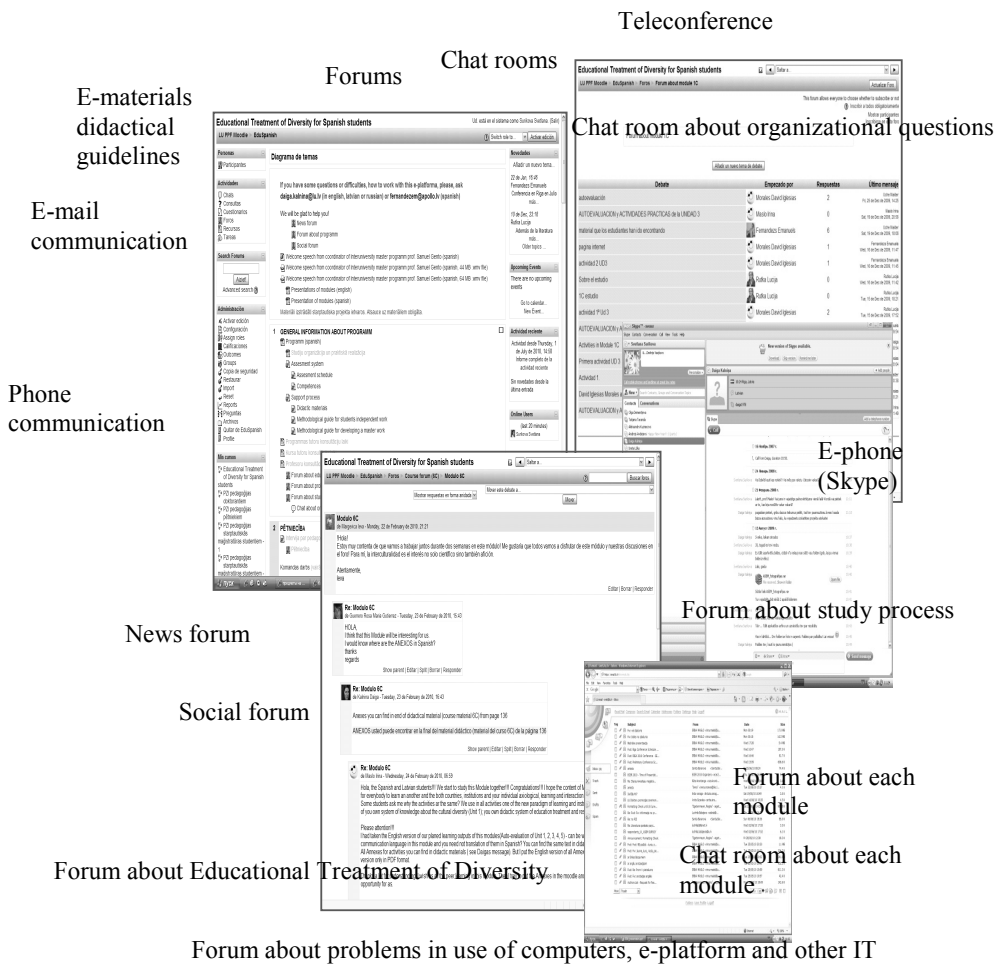
Figure 5-4 Student's involvement e-tools

By following Course Director's instructions, tutors are responsible for helping participants study the didactic materials, elaborate the required tasks or solve any other difficulty they have in regard to the course academic requirements. Tutors also help participants in any other aspect, according to the Course Director's decisions, tutors participate in the course follow-up sessions and in e-learning by the use of technological means (such as video-conferences, etc.).

Evolving technology
Interactive e-learning technology is used. As the programme is designed to be im-

parted at full-time or part-time interactive self-organised e-learning models, there is no compulsory regular face-to-face lectures with students. To substitute this presence of regular lecturing, e-didactic material has been prepared with the necessary structure and reinforcements to be used by students in an independent way. The interactive e-learning is based on the web and moodle (see Figure5-5):

www.pzi.lu.lv

http://www.eduinf.lu.lv/moodle/
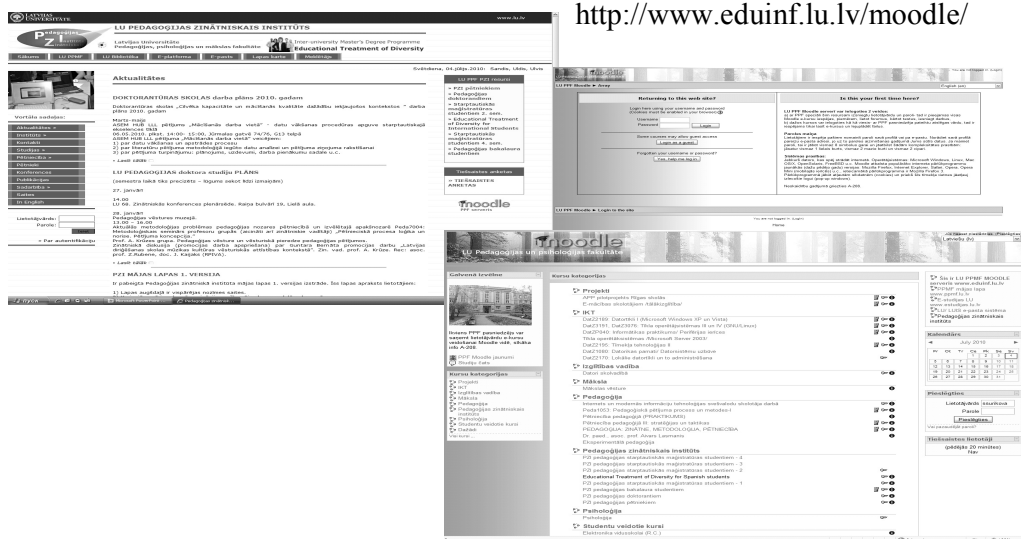
Figure 5-5 Web and moodle tools

(11) E-learning design

As the programme is realized in the interactive e-learning modality (from Lat. mode, Latv. modalitāte - the way, method, custom – the English-Latvian dictionary, Riga, 1955) for full-time and part-time, students' regular, compulsory lecture attendance is not intended. To replace such existence of regular lectures, studies with e-didactic material is prepared for students in Spanish, English and Latvian depending on structure that supports e-learning.

To facilitate students' academic success, various forms of individual and group counselling, which many of them are e-tutoring and e-mentoring of peer and intergeneration learning are implemented in addition to the programme. Professors and other programme lecturers, who act as consultants, have a periodical regular timetable

to assist students once a week during each module. E-communication with students is compensated by telephone, e-mail, postal mail or any other possible means. In case of problems, difficulties or uncertainties, students have an opportunity to consult with the study methodologist and turn to the student services.

For this reason, e-tutoring and e-mentoring sessions are imparted as inter-communicative opportunities where students can directly and flexibly speak to the professor and receive his/her specific and definite answer to the questions they put forward. E-tutors and e-mentors are key elements of the course implementation. To successfully implement their essential "role", they put in action communicative, didactic, pedagogical, technological, organizational, directive, and researching competencies. This way, they accomplish their fundamental functions of: a) students' accompaniment, b) follow-up, c) orientation, d) motivation and e) assessment.

(12) Technical capabilities

Although the Master's programme is implemented on the basis of interactive e-learning using Skype and web-cameras, nevertheless to facilitate the students' mobility into different countries, it is suggested that students visit other participating Universities, preferably those whose professors assume academic responsibility for the acquisition of a specific term module and use technical recourses of partner universities.

The Master's programme is implemented in the Faculty of Education, Psychology and Art, in Riga, Jūrmalas Gatve, 74/76. In the year 2007, the Institute of Pedagogical Sciences (PZI) was founded. It has 3 rooms and 10 research places. There are available all ICT, int. al. web-cameras, video-cameras, Internet phone Skype, studies e-learning platform with video-conferencing capabilities. Technological Applications of the programme are supported by UNED.

Study infrastructure is categorized as well*:*

- Copiers, computers, printers, two stationary and one portable presentation programme devices, computer room with the Internet connection, overhead projector, qualitative boards (white and magnetic), paper perpetual boards are

available. There are permanently equipped lecture-rooms.

- In the Library of the faculty there is compulsory and recommended literature, conference papers and other issues. Funds are systematically updated. Databases and periodicals in foreign languages are available in the LU library.
- Basic study literature is available in e-learning environment Moodle.
- Online and Skype video-conferencing is provided.

To ensure MA students' research, the scientific supervisors also offer their personal study literature (this source has to be used because of the high cost of the books, as well as to expand opportunities for MA students to use for research significant, but in libraries not existing, sources, and to study foreign literature).

(13) Collaboration

The programme was developed and implemented on the basis of Pedagogy Masters' programme in Social and Special Pedagogy of the University of Latvia, in consultation with the School of Rezekne and Riga Teacher Training and Educational Management Academy experts in professional and social pedagogy, taking into consideration also the Charles University in Prague, Rētlingenes University and the UNED experience in similar programmes. "Educational Treatment of Diversity" programme content was developed in cooperation with all participating universities and through mutual agreement on the programme guidelines, as well as with experts from leading European and American universities. All participating universities offer students the same content, built on the same common criteria, organized following a common structure and using equivalent materials.

The programme was developed and now is implemented according to employers' request. There was a long discussion with Latvian Republic Education and Minority Advisory Council, the National Special Education Center (VSIC), the General Education Department of Education and Science Ministry and local authorities in Latvian regions concerning the necessity of the programme. The survey on the employers' requirements of master's degree holders was carried out. The data were taken into account in defining the students' competence, whose improvement is en-

sured by the learning programme.

The students and lecturers of the programme are actively engaged in activities organized by employers, such as the week "Education for All" an annual event, organized by LR UNESCO National Committee, VSIC, and Ministry of Education. The Programme has also generated interest from people with disabilities and their friends' association "Apeirons", which prepared and placed information about the programme and its students on the website, "special news".

In cooperation with the Ministry of General Education Department and the Minority Advisory Council, population surveys and focus group discussions were organized, as well as questionnaires, observation and interviews for data processing. A small group of 8 researchers network was created (doctoral and master's degree students under the responsibility of research project managers − up to 7 undergraduate researchers for one project − tutor). Each group of researchers makes a survey of 7 x 10 respondents, runs one focus group discussion and processes the data. Small groups' mini-data bases were integrated as a part of a single project database, which is used for the needs of employers. The in-depth data analysis is planned to be undertaken in cooperation with the PPF Education Research Institute's international cooperation partners.

(14) Accessibility

The Master's Course on "Educational Treatment of Diversity" is a post-graduate course whose target audience is students in Latvian, EU and other countries with Bachelor's degree, teachers and other professionals who work or who will work in education or other areas with people with diverse special needs, following individual needs, own individual situation in concrete circumstances or specific context. The Master's Programme "Educational Treatment of Diversity" is offered to those who have got a previous academic degree necessary to be registered into a post-graduate course; this implies the necessary competencies to be trained to intervene in the diverse options presented within this professional arena.

(15) Motivation

According to the students'opninion, such programme is necessary:

- to obtain the master's degree in pedagogy for people who do not have the bachelor's degree in pedagogy – to obtain such a special teacher education pedagogy in the field of educational treatment of diversity;
- to work on pedagogical solutions that are also connected with people with disabilities, as well as a new perspective on the role of pedagogy in general;
- to learn the pedagogy, which is essential in all areas of life, and extremely important topic at all times, including today's difficult situation in Latvia. The fact that a programme has started in Latvia, gives hope that human issues are not yet lost in our mercantile society, and that Latvia will have a brighter tomorrow;
- to plan own time, learn in another interactive way to experience other countries currently facing issues in pedagogy and education;
- to study abroad, continuing the programme and, of course, to work in own chosen profession;
- to explore the possibilities to use necessary materials and information, not only in one's own country, but also Europe as a whole, which is important nowadays.
- to study full-time and combine their studies with work, i.e., not attending lectures every day, but the possibility to study at the appropriate time;
- to use IT in learning process. It is possible to study at work, home, etc. Study materials are available on platform, etc.;
- to consult other national information, experience, pedagogy, to expand the knowledge of languages (Spanish, English), to participate in exchange programmes for guest lecturers from other countries;
- to study things related to the practice, to improve the daily work and expand their knowledge and skills;
- to study in the new, modern international learning environment – the e-environment, which will make it possible to study both independently and

communicate with others in common forums, chat rooms (cooperative learning), as well as learn from others' experience of diversity pedagogies;

- to study via the Internet combining it with family, work, etc. For a new mother, it is very important;
- to learn the Spanish language, and go on to study in Spain, as it has already successfully made by two students;
- to adapt own work-place to people with special needs;
- to promote various projects and actively apply the knowledge, skills, competence in carrying out one's ideas, programmes, plans in practice;
- to undertake doctoral studies, as mentioned above, to do the same in other countries, to gain further experience and new knowledge, and deepen the existing ones (Gento, 2006; Gento et al, 2008; Maslo et al, 2008).

(16) Performance: self efficacy in e-learning

According to the evaluation of the programme "Educational Treatment of Diversity" in 2008 – 2010:

- Each student has an opportunity to design the enrichment of their experience by making the use of varied sources of information, new technologies, and several languages to reach an important subjective goal;
- Providing opportunities by constructing various unknown situations for transcultural communication, which forms an important context of academic studies, and facilitates students' capabilities.
- Transcultural communication positively and significantly affects the quality of student-student and student-academic staff transaction, as well as quality of diversity-related experiences through students' participation in problem-solving and information exchange in e-learning process.

(17) Learning outcomes

Master degree ensures independent and responsible (taking into account scientific ethics) professional work as well as studies in the doctoral programme:

a) *Generic competences*

Students of the master programme obtain general competences:

- To structure critically basic approaches of scientific contents;
- To differentiate critically epistemological structures of concepts and their developing tendencies;
- To use knowledge in social and cultural context;
- To fulfil knowledge into the practice;
- To use available sources of particular knowledge areas;
- To use academic contents in different languages (Spanish, English and others);
- To widen knowledge by different kinds of researches;
- To provide effective and economical learning management;
- To organize knowledge in a structured and systematic way;
- To extend knowledge in scientific, cultural and practical contexts;
- To integrate knowledge into development trends of pedagogical theories and approaches (Gento, 2006; Gento et al, 2008; Maslo et al, 2008.

b) *Basic pedagogical competencies*

During the master programme, students develop their pedagogical competence and at the end of the course students are able:

- To carry out and promote pedagogic leadership;
- To take advantage of contextual and personal implications affecting action projects;
- To promote self-reliance on one's own abilities;
- To assume the risk of implementing new challenges;
- To empower initiatives to face and solve problems;
- To transfer theoretical knowledge into practical use;
- To design projects and plans valid to be implemented;
- To organize and follow through methodological systems to implement effectively plans and projects;
- To use the necessary procedures, techniques and instruments to evaluate projects

and plans;

- To manage and solve conflicts among people and groups;
- To give advice appropriate to needs;
- To empower the feeling of membership of groups, communities and society;
- To promote solidarity among people living or working together;
- To reinforce dialogue among persons and communities;
- To use communication techniques and resources effectively;
- To take part and intervene actively in team working with diverse professionals;
- To design and implement research activities focused on practical improvement of processes and activities;
- To use communication methods in order to give an opinion and make a decision;
- To evaluate processes and results;
- To assess impact repercussions of knowledge development and of knowledge learning;
- To write academic publications (Gento, 2006; Gento et al, 2008; Maslo et al, 2008).

c) *Specific integrated social-pedagogical, psychological and special pedagogical competence.*

During the Master programme students will develop their competences in different inclusion contexts, students will be able:

- To assume role, functions and tasks of professionals dedicated to educational treatment of diversity;
- To improve continually professional activity;
- To use the most appropriate approaches to educate people with diverse special needs;
- To handle international and national regulations applicable to the education of people with diverse special needs;
- To adapt international and national experience on educational treatment of diversity;
- To use the necessary techniques and instruments to detect and evaluate people's

diverse special needs;

- To design curriculum adaptations appropriate for people with diverse special needs;
- To design programmes of educational intervention suitable to practical implementation with people having diverse special needs;
- To implement programmes of intervention with people having special needs;
- To motivate people with diverse special needs for them to promote their own personal abilities;
- To give advices and consultations;
- To implement methodological innovation on educational treatment of diversity;
- To use adequately didactic materials suitable to people with special needs;
- To handle technological resources accommodated to special needs educational treatment;
- To deal with procedures, techniques and instruments required to assess processes, results and impact of people's all dimensions development;
- To validate design, implementation and results of educational intervention with people having diverse special needs;
- To choose and implement the required methodological strategies to promote personal development of abilities of people with special needs;
- To counsel appropriately people with diverse special needs;
- To promote self knowledge and self esteem in people with diverse special needs;
- To promote the highest possible autonomy and personal development in people with special needs;
- To promote cooperative learning for people with special needs;
- To promote interpersonal communication of people with diverse special needs in the most extended foreign languages (particularly of the EU);
- To set up and use the appropriate relationship with families of pupils or students with diverse special needs
- To promote attitudes and behaviours in favour of integration and inclusion

of people with diverse special needs in every educational, familial and social context;

- To suggest and intervene in research activities related to the educational treatment of diversity;
- To guarantee the necessary requirements to facilitate integration and inclusion of people with diverse special needs (Gento, 2006; Gento et al, 2008; Maslo et al, 2008).

5.3 Web based solution portal 'Uzdevumi. lv'

(1) Learner education background

Uzdevumi.lv is a web portal whose target audience is Latvian pupils (also pupils of other nationalities but with knowledge of Latvian language) attending school from grade 1 to 12 and teachers of Latvian schools (various school subjects).

In order to be able to use the portal, pupils (also pre-school children) have to have reading skills and basic computer literacy. Alternatively younger children might require help from their parents.

Teachers have to be computer literate.

(2) Computing skills level of the learners

List of compulsory skill requirements:

- Use of Internet Browsers: understanding the web page navigation, being familiar with registration and authentification processes in web portals;
- Use of e-mail: teachers and pupils must have an e-mail account and they should be familiar with its usage.

Specific requirements: teachers and pupils should be able to change computer input language and use different keyboard layouts (e.g. in case of Russian language school subject).

(3) Type of learners

The portal is best suited for several types of learners:

- Both visual and verbal learners;
- Sensing learners;
- Both sequential and global learners (learning objects are structured to suit sequential learners but there are no mandatory requirements to follow the linear steps);
- Reflective learners (all learning objects are based on learning-by-doing however the portal uses individual approach instead of group work).

(4) Vary of teaching methods

The teaching methods that are used mostly within the portal are following: "word smart", "number/reasoning smart", "picture smart", "music smart".

(5) E-learning barriers

In case of uzdevumi.lv we mostly have to deal with the barriers related to technological aspects of the portal:

- There are minimum requirements for computer hardware and software components described in section "Technical capabilities". Not all schools and households match up to these basic requirements.
- Teachers and pupils have to have relevant computing skills which in some cases cause problems with very young learners or older teachers.

Also the portal is designed for Latvian speaking audience therefore it is limited to the domestic market.

(6) Attention

Uzdevumi.lv is designed as a supplementary tool for general school education and its application for teaching and/or learning is a choice made by users themselves. Therefore pupils and teachers who are using the portal are mostly self-motivated

to do so (in some cases pupils might be also motivated by their teacher).

(7) E-content

All e-content available from the portal has been developed in accordance with the school curricula approved by the National Centre for Education (which is directly subordinate to the Minister of Education and Science). The authors of the e-content are teachers with long-term work experience in school.

All learning objects (exercises) are based on content generation principle (meaning that one exercise can be passed several times but each time learner would get different variation of that exercise) which facilitates learning-by-doing principle. Moreover the design and format of the e-content is adjusted to targeted age-groups of the pupils and formatted using style templates.

(8) Instructional design

Learning objects within the portal are structured on the basis of grade (1-12), school subjects (e.g. Mathematics, English Language, Geography, History etc.) and topics (in accordance with the school curricula approved by the National Centre for Education). Each topic is further divided into theory materials, exercises/tasks and tests for training. Pupils can freely complete exercises/tasks, receive instant results (true/false) and detailed solution steps. In case an exercise has several answer input fields, each field is assessed separately. As learning objects (especially exercises) are based on content generation principle, pupils might want to pass one exercise more than once. In this case statistical data gets stored within the system and average percentage of success (success rate) is displayed next to each learning object (including the number of times the pupil has tried to pass the exercise).

Tests are combinations of several exercises/tasks. They are evaluated based on the same principle as separate exercises. The result is displayed as average score based on result received in each exercise. The test results are also displayed as percentage. Tests assigned by teacher as control work or homework are evaluated the same way as tests for training.

All results achieved by pupil within a subject are summarized in an average grade

(1-10) which is visible to the student from the beginning of the study year and works as motivational component for improvement of his/her learning outcomes.

(9) Organizational specifics

To gain access to portal's e-content and e-learning functions teachers and pupils must fill in registration form (using valid e-mail address) and confirm registration upon receipt of confirmation e-mail. Teachers willing to create their own tests must also fill in identification form which gets validated by Uzdevumi.lv team via phone.

(10) E-learning logistics

Interoperability
Uzdevumi.lv has been integrated and ensures data transfer with e-journal 'E-klase'; the portal is based on GenExis System which has both Desktop (for content development) and Web Pricing Applications.

Pricing
Pricing at present only for special services and state examination e-content for graduates.

Performance
Performance – more than 80 thousand registered users (both pupils and teachers).

Content development
Content development – teachers can create exercises on the WEB and in the GenExis system.

Communication tools
Communication tools – inner messaging tool + notifications to e-mail.

Student Involvement Tools
Student involvement tools – various competitions with prizes, school and personal ratings.

Evolving technology

Evolving technology – GenExis System and Web application www.genexis.lv.

(11) E-learning design

Portal Uzdevumi.lv is completely web-based solution (Figure 5-6) supporting traditional web page navigation principles. Structure of e-content is described in more detail in section 'Instructional design'.
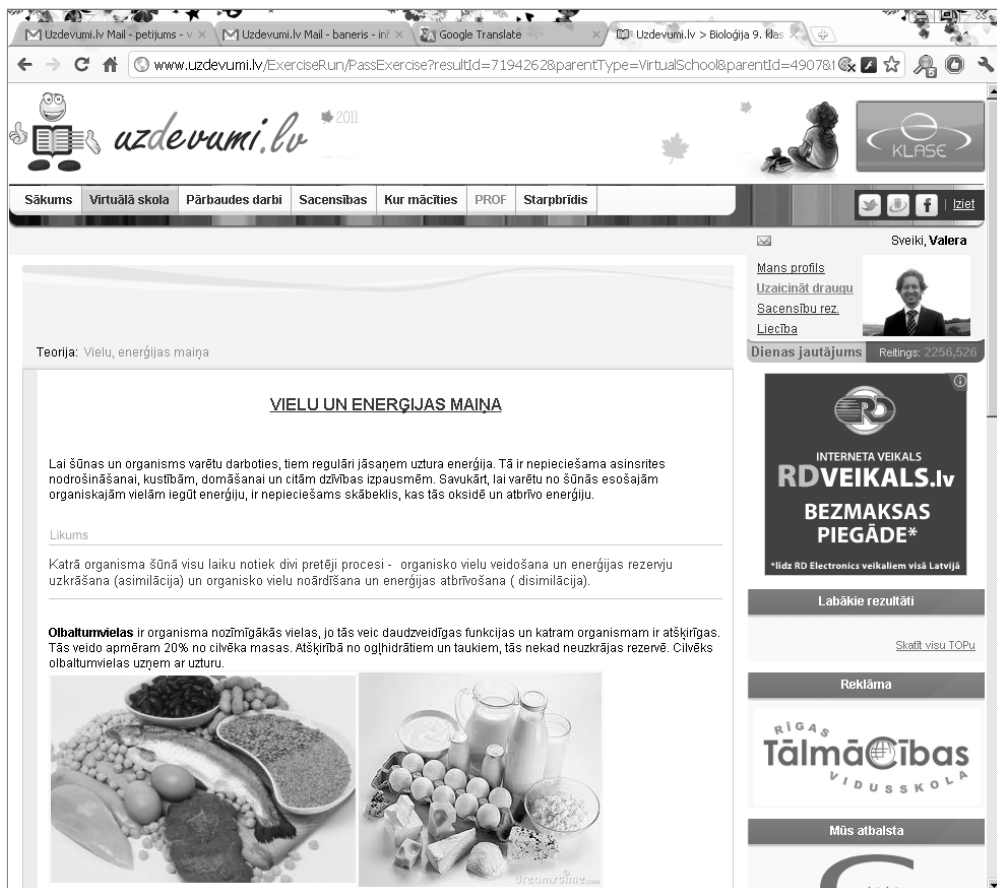
Figure 5-6 Portal Uzdevumi.lv - completely web-based solution

(12) Technical capabilities

Hardware CPU 800 MHz, RAM 256 MB. Software - modern internet browser at

least Internet Explorer 7.0, Google Chrome or Mozilla Firefox. Installed Latvian language.

(13) Collaboration

Portal *Uzdevumi.lv* is closely collaborating with teachers, especially when it comes to content development and introduction of new functionality. It has also well established partnership with e-journal '*E-klase*'. In future Portal *Uzdevumi.lv* plans to involve pedagogy experts in further development and improvement of the product.

(14) Accessibility

From technological point of view, the portal is accessible via Internet from any place and at any time. However the restrictive factor is the language barrier as portal is designed for Latvian-speaking audience.

(15) Motivation

Pupils are motivated to learn through following approaches:

- Individual and school rankings;
- Success rates;
- Average grades for subjects (similar to those given by teachers at the end of school year).

(16) Attitudes and interest

Portal has had stable growth of registered users and ever increasing interest from pupils and teachers. Uzdevumi.lv team keeps receiving positive feedback to uzdevumi.lv mailbox.

(18) Learning outcomes

Currently the portal provides pupils with opportunities to acquire the same learning outcomes as defined in the school curricula approved by the National Centre for Education (which is directly subordinate to the Minister of Education and Science).

6 Recommendations and prospects

This White Paper on e-Learning for Lifelong Learning in Latvia is one among a number of white papers dealing with e-Learning and lifelong learning in the e-ASEM network — the research network on the Development of ICT skills, e-Learning and the culture of e-Learning in Lifelong Learning — under the ASEM Education and Research Hub for Lifelong Learning.

The concept of Latvian LLL combines the humanistic and economic approach in the perception of the life-long learning – the development of the personality in connection with raising qualification and requalification combing it with formal, non-formal and informal learning in the integrated perspective of innovations and entrepreneurship.

E-learning is a tool to create an effective learning community. E-learning is most widely used in higher education. In the description of two typical e-study examples of best practice, different approach is observed. The first example offered by RTU demonstrates blended e-learning, mainly content- and context-focused. Second – also typical blended e-learning example in a way not typical among other e-study courses offered by UL focuses on the development of learning to learn competence. According to the opinion of Latvian higher education students:

a) e-learning is a perspective, but it is not the only form of learning, and it would be best to combine e-learning as distance learning form with face-to-face learning, it means, the priority is given to blended learning;

b) e-learning has a great potential to offer different kinds of study materials. According to the data of research, there are mainly lecture materials (text format, images and other static information), sometimes videos, demos, and interactive learning materials, including automated training, tests, questionnaires, exercises and tasks, but practically no lecture videos and live lectures online, which would be very useful in learning and revising;

c) e-learning is an opportunity for the students from the aspect of the personal

time management and flexibility to combine work with studies;

d) e-learning is a challenge and a capability for the growth and development of the student as an individual and social identity; for the development of competence of self-learning and self-organisation;

e) e-learning is a possibility to provide multiple forms of communication between the lecturer and student, student and student; it is the most uncertain and sensitive issue. It means that socialisation in e-learning environment is one of the main factors which influences the effectiveness of the students' e-learning and will require a deeper and more fundamental investigation (Birzina, 2011).

That means that e-study has got a significant role in higher education institutions and it should be developed, improved and their application forms and types varied as e-learning is a means to promote the changes in academic studies providing an opportunity to integrate non-formal and informal learning elements into formal education. Exactly the individualization, equity in time and e-environment can facilitate the development of students' competence.

To introduce and to develop the information society, it is necessary to achieve several objectives:

- every Latvian citizen has the opportunities (infrastructure) and skills to use ICT and available e-services;
- citizens and business have access to rich variety of services and content that will make life easier and will allow to raise the life quality;
- active use of ICT for new knowledge creating, innovations in business, creating value added growth.

In the context of information society development, the situation of Latvia is very similar to the situation in many European countries that have got quite well-developed infrastructure, broadband internet access and the readiness of the society to use information technologies widely. According to the statistics, Latvia is the country of average development. The further steps in the development of information society would be:

The development of infrastructure. Thanks to the modernized public libraries with

computers and broadband Internet connection during the previous 5 years in Latvia, every Latvian resident can actually use information technologies in his/her business and education, including e-learning and lifelong learning opportunities. The topical issue for the following years would be the modernization of the infrastructure of schools, universities and science.

Access to information. By the rapid growth of information processing opportunities and willingness of society to use it, the topical issue is to provide the balance between the information available in quantity, quality and diversity and society's expectations. In this area, Latvia has started the retrospective digitization of libraries, museums, cultural heritage and other stocks. In contrast to the global information providers (Google, Amazon, etc.), Latvia has to ensure content accumulation in the Latvian language for the needs of the majority of its population. Further progress in the digitization process is a priority for years ahead.

An educated user. According to the statistics, a large part of Latvian society is the users of Internet and information technologies. IT skills are acquired already at school where students are offered compulsory computer course to acquire ECDL corresponding knowledge. It is sufficient to use the acquired information technology skills to learn the content of other subjects. Students are willing to acquire IT knowledge and are open to innovations in education. However, a wide spread of IT in society has also caused rather complex problems – the computer game addiction, software piracy, privacy violations. "Young audience use the latest media technology in a rather limited extent choosing only a few most popular. Their choice is determined by entertainment, socialization and identity-building functions" (Rožukalne, 2011).

Availability of learning content. 10 years ago in terms of LEIS project, secondary school teaching and learning materials, about 20% of all subjects' content were developed electronically within the state budget. The materials were published in Latvian on the Internet and were available to all free of charge. The published materials unlike the commercial offers received wide application. Unfortunately, the limited budget available in following years did not allow proceeding with this work and it would be necessary to return to this as soon as possible. Nowadays many projects in Latvia are focused on e-resources supply, but it would be important to diversify

the kinds of e-resources as well to educate users in their use, taking principle into account e-resourses, and "equipment bundled with functional applications for the educated user".

Regulatory environment of building Information Society. Already in 1998 a strategic document − National program "Informatics" for the period 1998 − 2005 was developed and approved by the Latvian government. Unfortunately instead of one common strategy, at this moment in Latvia there are a number of long-term or short-term sectoral development strategies and plans that are mutually insufficiently coordinated and often contradictory. The move to concrete action according to a specific operational program and plan is a topicality for building information society in the next few years. There should be noted a lack of unified management and an overlap of public administrative functions.

Since 2005 a new position in the government has been introduced − the Minister of Special Assignments for Electronic Management Affairs and the subordinated Secretariat. Their main function was to develop and implement national policy of electronic management, information society and information technologies, as well as to facilitate the development and implementation of electronic services for state and local municipalities. Since 2009 the Secretariat as a separate institution was eliminated, exposing it to minister of the Regional Development and Local Government. At the moment, this institution is under the the Ministry of Environmental Protection and Regional Development.

References

Akadēmiskā terminu datubāze AkadTerm. Available via http://termini.lza.lv/ (Accessed 01.09.2011).

Andzans A, Bicevskis J., Mikelsons J. and others (2005). *ICT in Latvian Educational System - LIIS Approach*. Proceedings of the 3rd International Conference on Education and Information Systems: Technologies and Applications, July 14-17, 2005, Orlando, Florida, USA. Pp. 94-98.

Basic Guidelines of Lifelong Learning Policy for 2007–2013. Ministry of Education and Science LR, 2007, p. 5.

Birzina, R., Fernate, A., Luka, I., Maslo I., Surikova, S. (2012) *E-learning as a Challenge for Widening of Opportunities for Improvement of Students' Generic Competences*. E-Learning and Digital Media, Vol 9 No. 2, ISSN 2042-7530. UK: Symposium Journals Ltd. The issue is currently in production.

Birzina, R. (2011) *Understanding E-learning in Adult Education in Latvia.*Unpublished paper of the research carried out in the framework of ASEM HUB the research network No 1 Development of ICT skills, e-Learning and the culture of e-Learning in Lifelong Learning.

Birzina, R., Kalnina, D., Janevica, J. and Cernova, E. (2010)Effectiveness of interactive e-learning organization and quality assurance in European interuniversity master studies. Paper presented at the European Conference on Educational Research, University of Vienna, 28-30 September 2009. 16 pp. Avalable via http://www.leeds.ac.uk/educol/documents/186734.pdf (Accessed 24.12.2012).

Brivkalns, K., Janbicka, A., Slaidins, I. (1999) *Distance Training in Information Literacy for Students of Telematics*. Proceedings of the ninth DELOS workshop digital libraries for distance learing, 15-17 April 1999, pp.85-88.

Carlsen, A. (2011) *What is your vision for lifelong learning?* In Lifelong learning & the need for new models, ASEM, November 2011. pp. 21.

European Commission, 2008a. *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - New Skills for New Jobs. Anticipating and matching labour market and skills needs.* COM(2008) 868 final.

European Commission, 2008b. *Staff Working Document accompanying the-Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Improving competences for the 21st Century: An Agenda for European Cooperation on Schools.* COM(2008) 425 final.

Eurostat (2009). *Percentage of enterprises using e-learning applications for training and education of employees.* Available via http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/dataset?p_product_code=ISOC_PI_E3.INTERNET (2009). (Accessed 29.07.2011).

Fact Sheet of General Education (2011) Ministry of Education and Science Republic of Latvia. Available via http://izm.izm.gov.lv/education/general-education.html (Accessed 10.12.2011).

Fact Sheet on Higher Education (2011) Ministry of Education and Science Republic of Latvia. Available via http://izm.izm.gov.lv/upload_file/en/higher_education.pdf.

Fact Sheet on Vocational Education (2011) Available via http://izm.izm.gov.lv/upload_file/en/vocational_education.pdf (Accessed 10.12.2011).

Fetaji B, and Fetaji M. (2009) *E-Learning Indicators: a Multi-Dimensional Model for Planning and Evaluating e-Learning Software Solutions.* Electronic Journal of e-Learning Volume 7 Issue 2 2009, (pp 1 - 28), Available via www.ejel.org (Accessed 10.12.2011).

General education (2011) Ministry of Education and Science Republic of Latvia. Available via http://izm.izm.gov.lv/education/general-education.html (Accessed 10.12.2011).

Gento Palacios, S. (Coord.) (2006) *Interuniveristy Master on Educational treatment to diversity, program.*

Gento Palacios, S., Medina, A. & Domínguez, C. (2008) *Empirical Justification of the Interuniversity Joint Master Degree on "Educational Treatment of Diversity"*. Qualitative Psychology in the Changing Academic Context. Qualitative Psychology Nexus: Vol. 6, pp. 38-58.

Guide to e-learning solutions. Available via http://www.qwiki.info/observatory/tools/ (Accessed 10.12.2011).

Holm, C. *Vision for lifelong learning* (2011) In Lifelong learning & the need for new models, ASEM, November 2011. pp. 20.

Informatīvais ziņojums 'Par pamatnostādņu "Informācijas sabiedrības attīstības pamatnostādnes 2006.–2013.gadam" īstenošanas gaitu" (IZ_ISAP) VARAM, 05. 10.2011.

IUMEPLProg_280906_IKTIK; Programmas projekts 'Par Informācijas un komunikācijas tehnoloģiju izglītības kvalitātei (IKTIK) programmu 2007. – 2013. gadam' (2006) Apstiprināts ar Ministru kabineta 2006. gada 20.oktobra rīkojumu Nr.812 (prot. Nr.54 31.§).

Kalis, M (2008) *The Development of eServices in an Enlarged EU: e-learning in Latvia.* European Commission, Joint Research Centre, Institute for Prospective Technological Studies, Luxembourg: Office for Official Publications of the European Communities. EUR23367 EN/2 - 2008.-8 pp.

Karnītis, E. (2000) *Public sector information in Latvia: processing, availability and use.* Available via www.nispa.sk/news/karnitis.rtf (Accessible 10.10.2011).

Koķe, T. (2000) *Tālāizglītība Latvijā: realitāte un vīzija*. Konferences materiāli: Tālākizglītība Latvijā − realitāte un vīzija. Rīga: Latvijas Republikas IZM, Tālākizglītības fonds. 7.-12. lpp.

Kristovska, I. (2005) *Possibilities of Managing Distance Learning Support System in the Process of Perfecting Adult Competencies*. Summary of the Promotion

Paper. Riga 34 p.

Latvia e Inclusion 2008. (2008) *State Administration Policy Development Guidelines for 2008-2013*. 10 p. Available via www.epractice.eu/files/media/media2041.pdf (Accessible 10.10.2011).

Latvia. VET in Europe – Country Report. (2011) Available via http://libserver.cedefop. europa.eu/vetelib/2011/2011_CR_LV.pdf (Accessible 10.10.2011).

Latvia in Brief (2011). The Latvian Institute. Available via http://www.li.lv/ (Accessed 10.10.2011).

Latvian long-term economical strategy (approved in meeting of the Cabinet of Ministers on 17 July, 2001, protocol Nr. 34).

Latvian National Development plan for 2007-2013 (2006) Ministry of Regional Development and Local Government of the Republic of Latvia, 56 pp.

Latvijas Avīze (2006) *Tālmācība – nopietniem un aizņemtiem*. Latvijas Avīze. Riga.

Maslo, I. Kiegelmann, M.; & Huber, L. Günter (Eds.) (2008) *Qualitative psychology in the changing academic Contexts Qualitative Psychology* Vol VI. Germany, Tübingen: Center for Qualitative Psychology, pp.110-122. ISBN 978-3-9812701-1-2 [Thomson DB]. Available via http://www.qualitative-psychologie.de/files/nexus_6.pdf (Accessed 24.02.2012).

Medvedis, I., Niedrīte, L., Niedrītis, A., Treimanis, M., Voitkans, A. (2008) *E-University: Initiative: Approach, Solutions and Case Studies*. Proceedings of the Eighth International Baltic Conference Baltic DB&IS 2008, Tallinn, Estonia, June, 2-5", Baltic DB&IS, 2008, 141-152.

Misnevs, B. F. (2010) *E-learning in Latvia. Dimensions of E-Learning Education In Latvia*. Cases on challenges facing e-learningand national development: Institutional Studies and Practices. Vol. I. Turkey: Anadolu University. pp. 379-409. Electronic ISBN 978-975-98590-8-4 (1.c)978-975-98590-7-7 (tk.).

National system overview on education systems in Europe and ongoing reforms (2011) European Comission, Eyridice, 6 p.

New LQF (2011) Available via http://www.nki-latvija.lv/?page_id=239&lang=en (Accessed 10.12.2011).

Nisssinen, M. (2002) T*he Baltics as a Business Location for Information Technology and Electronics Industries*. Espoo 2002. Helsinki: VTT Tiedotteita Research Notes 2169. 234 p.

Par projekta 'Vienota nacionālas nozīmes Latvijas akadēmiskā pamattīkla zinātniskās darbības nodrošināšanai izveide' īstenošanu Available via http://izm.izm. gov.lv/ESF/6735.html (Accessed 10.12.2011).

Pilotprojekts "Sešgadīgo izglītojamo mācību programmas ieviešanas aprobācija", VISC, 2010−2011 Available via http://visc.gov.lv/saturs/vispizgl/dokumenti/20110830_materials_konferencei.pdf (Accessed 10.12.2011).

Pre-school education (2011) Ministry of Education and Science Republic of Latvia. Available via http://izm.izm.gov.lv/education/general-education/pre-school.html (Accessed 10.12.2011).

Profesionālās izglītības iestāžu tīkla optimizācijas pamatnostādnes 2010.-2015.gadam, Rīga, 2009. Available via http://izm.izm.gov.lv/upload_file/Izglitiba/Profesionala_ izglitiba/IZMPam_231209_TA4628.pdf (Accessed 10.12.2011).

Profesionālajā izglītībā iesaistīto vispārizglītojošo mācību priekšmetu pedagogu kompetences paaugstināšana. Available via http://profizgl.lu.lv (Accessed 24.02.2012).

Recommendations of the European Parliament and of the Council of 18 December 2006 on Key Competences for Lifelong Learning (2006/962/EC), Official Journal of the European Union, 30.12.2006.

Referencing of the Latvian Education System to the European Qualifications Framework for Lifelong Learning and the Qualifications Framework for the European Higher Education Area (2011). Self-Assessment Report, second

version, Riga, 2011 September. Available via http://www.nki-latvija.lv/wp-content/uploads/2011/09/ Latvian-Self-Assessment-Report-2nd-version.pdf (Accessed 11.12.2011).

Report on Latvian Economic Development (2010) Ministry of Economics of the Republic of Latvia. 147 p.

Rožukalne, A. (2011) *Mediju sistēma. Mediju funkcijas. Mediju efekti. Jaunu cilvēku mediju lietojuma paradumi.* Available via http://riimc.lv/files/mediju_sistema.pdf (6.01.2012).

Šiliņa, B. (2008) *The Development and State of the Art of Adult Learning and Education (ALE)*. National Report of the Republic of Latvia, Riga, 31 p.

State cultural politics guidelines for 2006-2015. National state. (Confirmed by the Decree of RL Cabinet of Ministers No 264 of 18 April, 2006).

Sustainable Development Strategy of Latvia until 2030. (2010). Saeima of the Republic of Latvia.

The Distance Education Study Centre (DESC). Available via http://www.vu.lv/index.php?lang=en (Accessed 01.07.2011).

The education system in Latvia (2011). Developed and published by VIAA State Education Development Agency Euroguidance Latviain co-operation with the Ministry of Education and Science of Latvia, Latvian ENIC/NARIC, Latvian Eurydice Unit. Available via http://izm.izm.gov.lv/education/education-system.html (Accessed 1.12.2011).

The Latvian IT Cluster: Pool the resource, share the vision. (publiched by British Publicher, U ⊦, 2008) Available via http://www.itbaltic.com/files/latvian_itcluster_brit_publish.pdf(Accessed 8.03.2012).

Trapenciere I., Kārkliņa I., Koroļeva I., Rungule R., Sniķere S.(2005) *ICT in the Latvian Educational System*.Available via www.elfe-eu.net/files/37/ict_lv_2005. doc (Accessed 10.09.2011).

Truong, N. (2011) *A new ISCED: Reflecting today's education systems*. In

Classifications Newsletter, August 2011. p. 3-5.

UNESCO (1996) *Report to UNESCO of the International Commission on Education for the Twenty- First Century*, UNESCO Publishing, France, 111 p.

UNESCO (2001) Medel-Anonuevo, C., Ohsako, T., & Mauch, W. *Revisiting Lifelong Learning for the 21st Century.* Available via http://www.unesco.org/education/ uie/pdf/revisitingLLL.pdf (Accessed 01.07.2011).

Vēzis, V. (2005) *Informatics in schools.*Summary of Doctoral Thesis. University of Latvia.

Ziņojums par Latvijas tautsaimniecības attīstību. (2010) Rīga, Latvijas Republikas Ekonomikas ministrija, 2010. gada decembris.

List of Tables and Figures

List of Abbreviations

ALE   – Adult learning and education

CLIL   – Content and Language Integrated Learning

DESC   – Distance Education Centre of Riga Technical University

EQF   – The European Qualifications Framework

EQUAL – European Community Initiative financed by the European Social Fund
          (ESF) and co-funded by the EU Member States

ESF   – European Social Fund

ERDF   – European Regional Development Fund

INTERREG – an initiative of the European Community, supporting cross-border projects
          by allocating the financing of the European Regional Development Fund
          (ERDF)

ISCED   – International Standard Classification of Education

LAEA   – Latvian Adult Education Association

LEIS   – Latvian Education Informatization System

LQF   – Latvian Qualifications Framework

MES   – Ministry of Education and Science Republicof Latvia

NDP   – National Development Plan

NQF   – National Qualifications Framework

RTU   – Riga Technical University

UL   – University of Latvia

e-Learning for Lifelong Learning in the Philippines

02

Prepared by:
Juvy Lizette Gervacio
with the assistance of Ms. Jessica Pedro.

Assistant Professor,
University of the Philippines Open University

Juvy Lizette Gervacio

Assistant Professor of the University of the Philippines Open University, the Philippines Juvy Lizette Gervacio is an Assistant Professor of the Master of Public Management Program at the University of the Philippines Open University. She is also the Project Coordinator and Course Manager of the eLearning Development and Implementation (eLDI) Asia and e-skills Asia Program. These programs are jointly implemented by the UPOU and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

She facilitated face to face workshops on e-learning in Germany, Egypt, Vietnam, Mongolia and the Philippines; and tutored online courses to members of partner networks in Africa, Latin America, and Caucasus region.

In 2010, her paper entitled: "Tutors and Learners Without Borders: In a Relationship but it's Complicated" won a silver award for Best Paper at the Asian Association of Open Universities Conference in Hanoi, Vietnam and subsequently published in the AAOU Journal in September 2011. Another paper entitled: "eLearning for Lifelong Learning in the Philippines: Challenges and Prospects" was given a UNESCO Fellowship Award at the International Conference on Open and Distance E-Learning on February 2012 in Manila, the Philippines.

Ms. Gervacio is also a member of the Steering Committee of the Open ECB-Check (Quality label for e-learning in capacity building/development).

She finished her Master of Public Management from the University of Potsdam, Germany in 2000, and Master of Arts in Demography from the University of the Philippines. She also obtained her Bachelor of Arts in Social Science from the University of the Philippines- Baguio.

Executive Summary

The education system in the Philippines is composed of three main components, namely; a) early childhood and basic education; b) technical vocational education and training; and c) higher education.

Lifelong learning in the Philippines is anchored on the UNESCO concept of life skills and is linked on the Education for All (EFA) goals through the concept of quality education interlinked with functionality. Lifelong learning is seen as a learning progression that begins at birth and continues until death. Lifelong learning encompasses formal and alternative learning systems (Philippine Education for All 2015 Plan).

Lifelong learning is currently being incorporated into the education system of the country, particularly in the introduction of the alternative learning system. However, the current efforts to achieve the lifelong learning goal in the country are largely delivered in the traditional manner.

Although ICT has already been introduced in all levels of education in the country, there is a higher usage of e-learning in HEIs compared to the other levels of education. Moreover, while the concept of e-learning is already defined, there is so much to be done in terms of quality assurance and standard setting.

On the utilization of e-learning for lifelong learning, the Philippine government has no specific policy yet. However, the country has made efforts to introduce the use of ICT in the education system.

In terms of regulatory mechanism on the Philippine education system, each level is handled by a different government agency. The Department of Education (DepEd) manages the basic and secondary education, the Technical Vocational and Skills

Development Authority (TESDA) handles post-secondary skills and technical education, and the Commission on Higher Education (CHED) supervises the tertiary and post-graduate education. Although these three agencies are tasked to regulate the education sector, they have not really utilized their regulatory power on e-learning.

The paper cites some examples of institutions implementing e-learning programs in the country. For early childhood and basic education, the eSkwela Project is a form of alternative learning system that utilizes ICT in the delivery of education. It uses an array of electronic modules, a learning management system, and the internet in the delivery of ALS. For technical vocational education and training, the e-TESDA Portal aims to "deliver quality education online" and to "create a world-class technical worker." For the Higher Education sector, University of the Philippines Open University is recognized by the Commission on Higher Education as the Center of Excellence in Open and Distance Education.

There is much to be done to integrate e-learning for lifelong learning in the Philippines. The paper recommends that a public policy is important to explore the potentials and opportunities of e-learning for lifelong learning. Moreover, the role of the three agencies related to education in regulating e-learning as a tool for lifelong learning should also be highlighted. There is also a need to orient the concerned agencies regarding the concepts of e-learning and lifelong learning and to come up with a framework for capacity building on e-learning for lifelong learning. Further, it is necessary to develop and implement a framework for quality assurance to ensure that the e-learning courses being developed and implemented are of standard. Finally, one of the prospects for e-learning for lifelong learning is the development and utilization of open educational resources.

List of Abbreviations

A&E Exam – Accreditation and Equivalency Exam
AIM – Asian Institute of Management
ALS – Alternative Learning System
BEC – The Basic Education Curriculum
BESRA – The Basic Education Sector Reform Agenda
CHED – Commission on Higher Education
CICT – Commission on Information and Communication Technology
CILC – Computer and Internet Literacy Course
CREM – Center for Educational Multimedia
CWTS – Civic Welfare Training Service
DA – Department of Agriculture
DECS – Department of Education, Culture and Sports
DepEd – BALS – DepEd Bureau of Alternative Learning System
DepEd – Department of Education
DLSU – De La Salle University
DTI – Department of Trade and Industry
EFA – Education for All
e-LEAP – e-Learning Access Program
EO – Executive Order
ETEEAP – Expanded Tertiary Education Equivalency and Accreditation Program
FIC – Faculty-in-Charge
FLT – Functional Literacy Test
GDLN – Global Development Learning Network
GSPDM – Graduate School of Public and Development Management
HEI – Higher Education Institutions
IVLE – Integrated Virtual Learning Environment
LGU – Local Government Unit
LTS – Literary Training Service
LUC – Local Universities and Colleges
MTPDP – Medium Term Philippine Development Plan

NEDA	– National Economic and Development Authority
NGO	– Non-Governmental Organization
NSTP	– Non-Traditional Study Program
PLM	– Pamantasan ng Lungsod ng Maynila
PUP OUS	– Polytechnic University of the Philippines Open University System
RA	– Republic Act
SFI	– Schools First Initiative
SUCs	– State Universities and Colleges
TESDA	– Technical Education and Skills Development Authority
TVET	– Technical Vocational Education and Training
UgAT	– Undergraduate Admission Test
UP	– University of the Philippines
UPOU	– UP Open University
UST	– University of Santo Tomas
VLE	– Virtual Learning Environment
WEC	– Web-Enhanced Courses

Chapter 1 ‚ Educational systems

In the Philippines, education is considered a universal and constitutional right, thus every Filipino is entitled to it. Education is seen as a "key investment" in order for the Filipinos to finally break free from its long struggle against poverty and provide the people with promising opportunities. As stated in the Medium-Term Philippine Development Plan (MTPDP) 2004-2010, it is the policy of the Philippine Government to put primacy "on quality and accessible lifelong learning, from early childhood development to primary, secondary and tertiary learning" (National Economic and Development Authority [NEDA], 2004).

Based on the 2008 Functional Literacy, Education and Mass Media Survey (FLEMMS), about 86.4 percent of the Filipino people aged 10-64 are functionally literate. Basic literacy is estimated at 95.6 percent. Some who have little or no formal schooling must have gained functional literacy through alternative sources such as media (NEDA, 2011)

1.1 The education system in the Philippines

The basic education system in the Philippines is considered as one of the shortest in the Asia-Pacific region. It is made up of one to two years of pre-school education, six years of compulsory primary education, four years of secondary education and four to five years of higher education.

The education system in the Philippines is composed of three main components, namely:

1) early childhood and basic education;

2) technical vocational education and training; and

3) higher education.

Figure I provides a snippet of the structure of the educational system in the Philippines. The average Filipino child starts formal schooling in elementary school at age six. However, children who avail of early childhood education undergo preschooling at the age of three, hence, from 3-5 years old, a child is expected to be in the pre-school. From 6 to 11 years old, the student is expected to be at the elementary level. Elementary schooling is composed of six years and is compulsory. After finishing elementary, a student is now ready to take secondary course for four years. Tertiary education is taken after secondary education; when a person is about 16-20 years old. Graduate and post graduate courses are usually taken from 20-21 years old and above.

Options for technical and vocational courses are also available for those who wish to join the skilled labor force. Each level of education, from pre-school to secondary, prepares the student with competencies needed to move on to the next level. Ideally, secondary education equips the students with functional literacy that will either help them survive higher education or the labor industry (Lapus, 2008).
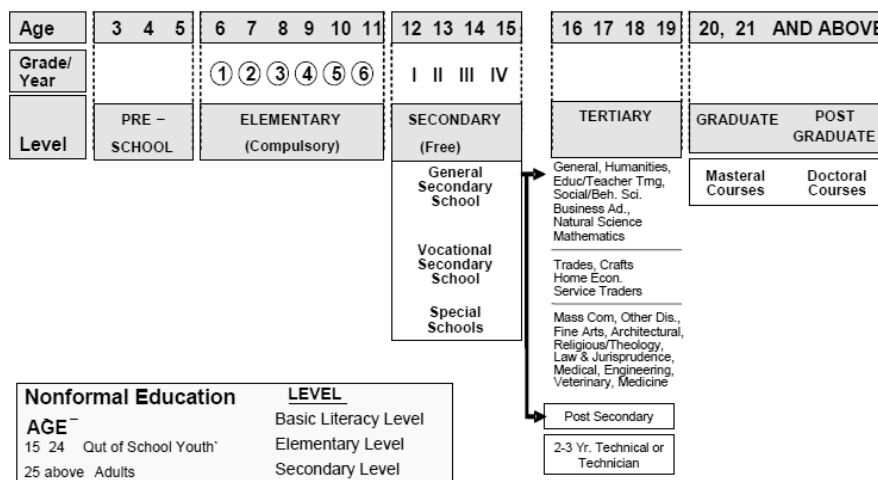
Figure I The Structure of the Philippine Educational System (Lapus, 2008)

1.2 The three levels of education system in the Philippines

1) Early Childhood and Basic Education

Based on the MTPDP 2004-2010, only around 77 percent of five-year-old children are served by accredited public and private preschools and by LGU[4])-run day care centers. The quality of services provided in preschools and day care centers varies in terms of curricula. Some preschools and day care centers are mere childminding centers. In some, particularly those in urban areas, they apply some forms of formal school curricula, especially for children ages five to six years old. (MTPDP, 2004-2010NEDA, 2004).

In school year 2009-2010, the net enrollment rates at the elementary and secondary levels were at 85.0 percent and 62.4 percent, respectively.

The quality of Philippine basic education is confronted with several challenges as a result of continuing rapid population growth, estimated at 2.3 percent annually. Moreover, budgetary constraints have led to underinvestment in basic education, as evidenced by the decline in real spending per student.

Other critical school resources for delivering quality education include classrooms, desks/seats, teachers, and textbooks. There are classrooms being used by more than 100 children, a two-seater desk shared by three to four children, and a teacher holding a class of 100 or more pupils. Teacher qualifications remain to be an issue, especially at the secondary education level, both in terms of content and pedagogy. (MTPDP, 2004-2010NEDA, 2004).

2) Technical Vocational Education and Training

Technical Vocational Education and Training (TVET) is carried out through both formal and non formal means. The provision of TVET through formal means is domi-

4) local government unit; the territorial and political subdivisions of the State

nated by the private sector. For the nonschool-based training, most of the providers are publicly-funded institutions. The TVET delivery network includes higher education institutions, industry-based training centers, NGO-based training centers, LGU-based training centers as well as schools and training centers supervised by the Technical Education and Skills Development Authority (TESDA). Enrollment in the middle level human resource development through the technical and vocational education and training was two million in 2008. (NEDA, 2011)

To ensure a competent workforce responsive to the quality standards of industries, the TVET subsector through TESDA implemented quality assurance measures. In 2009, the certification rate is 82.62 percent.

3) Higher Education and Institutions (HEIs)

According to Arcelo (2003), higher education in the Philippines is "highly diversified" and "pluralistic" because of "the diversity in its origin, plurality in its mission and regional accessibility". There are 2,180 higher education institutions (HEIs) all over the country, of which 607 are public and 1, 573 are private. The 607 public HEIs are classified into State Universities and Colleges (SUCs) (110), satellite campuses (388), LUCs (93), other government schools (10), CHED-supervised institution (1) and special HEIs (5). Private HEIs may be sectarian or non-sectarian (http://202.57.63.198/chedwww/index.php/eng/Information).

Improving access to and success in higher education remains a challenge. Table I shows the number of enrollees and graduates in the tertiary level. In 2009, the enrollment for the tertiary level is around 2.62 million. However, according to the 2007 Annual Poverty Indicators Survey (APIS), the drop-out rate was worst at 65.8 percent. This is mainly due to the high cost of education. Moreover, the current average passing rate in board examinations suggests poor readiness of a large number of college graduates to take on professional and high-skilled jobs.

Table 1. Number of Enrollees and Graduates in the Tertiary Level 2005-2010 (CHED, 2010)

Academic Year	Enrollees	Graduates
2005 ~ 2006	2, 483, 274	421, 444
2006 ~ 2007	2, 604, 449	444, 427
2007 ~ 2008	2, 654, 294	444, 815
2008 ~ 2009	2, 625, 385	469, 654
2009 ~ 2010	2, 770, 965	425, 171*

*projection as of November 30, 2010 (CHED, 2010)

Chapter 2 Concepts of Lifelong Learning and e-Learning

The concepts of lifelong learning as well as e-learning are still defined separately in the Philippines. Although the concept of lifelong learning is already included in the education system in the country, it is still limited in the context of the conventional manner. On the other hand, although e-learning has already penetrated a lot of schools, it is still limited due to limitations in infrastructure and resources.

2.1 The Concept of Lifelong Learning in the Philippines

As early as 1991, the term 'lifelong learning" has been apparent through Republic Act 7165 which created the Literacy Coordinating Council under the Department of Education (DepEd). It was aimed to formulate policies and coordinate national efforts towards the development of literacy skills for lifelong learning in a global society/community (Soliven and Reyes, 2008).

The definition of lifelong learning is anchored on the UNESCO concept of life skills and is linked on the Education for All (EFA) goals through the concept of quality education interlinked with functionality. "Lifelong learning is a learning progression beginning at birth and ending only with death which encompasses both the formal and alternative learning systems". (Philippine Education for All 2015 Plan).

Lifelong learning is currently being incorporated in the education system of the country, particularly in the introduction of the alternative learning system on top of the formal school system. According to Lapus (2008), the interface between these two systems allows for learning gaps to be addressed. Moreover, he refers to the lifelong learning goal of the EFA Plan that "all learning leads towards a common goal of life skills development that results in employment, social participation and integration and self-actualization". Lapus (2008) also emphasized that there is more to lifelong learning than the enhancement of one's knowledge and skills, rather it must be towards the improvement of a person's ability to "move forward and be self-sufficient". The end goal of which is to alleviate poverty in the country.

However, the current efforts to achieve the lifelong learning goal in the country are largely delivered in the traditional manner. Government institutions as well as non-government organizations (NGOs) even go to different communities to conduct capacity-building trainings, among others.

2.2 E-Learning Concept in the Philippines

The Commission on Higher Education (CHED) through its Technical Committee of Reviewers for the Delivery of Open Learning and Distance Education defines: "E-learning as a generic term for all technologically supported learning using an array of teaching and learning tools that utilize electronic media such as phone bridging, audio and video tape, video teleconferencing, satellite broadcast and the more commonly recognized forms of web-based training or computer aided instruction also commonly

referred to as online courses." (TCROLDE, 2002 as cited in Arinto and Garcia, 2009).

Caccam et al (2003), also defines e-Learning as "technologically-supported learning, which includes the use of electronic media such as the internet, personal computers, phone bridging, audio and videotape, video teleconferencing, satellite broadcast, mobile phones, personal digital assistants, and other related technologies to enhance teaching and learning."

The use of ICT has already been introduced in all levels of education in the country. Moreover, there are some government and private institutions that also provide e-learning courses but on a limited scale. However, there is a higher usage of e-learning among higher education institutions compared to the other levels of education.

Although the concept of e-learning is already defined, there is so much to be done in terms of quality assurance and standard setting.

Chapter 3 | **Government policy, finance/funding, regulation of e-learning for lifelong learning**

3.1 The Philippine Government Policy on e-Learning for Lifelong Learning

The Philippine government has no specific policy on eLearning for Lifelong Learning. However, the country has made efforts to introduce the use of ICT in the education system. The government has shown its commitment to ICT in education through the MTPDP (2004-2010), The Basic Education Sector Reform Agenda (BESRA),

The Basic Education Curriculum (BEC), Schools First Initiative (SFI) and the National Action Plan to Achieve Education for All (EFA) (Draft DepEd ICT4E Strategic PlanDepEd, 2009).

1) Early Childhood and Basic Education

The MTPDP 2004-2010 identified measures towards addressing issues in the basic education sector through the provision of computers in every public high school in the country. This measure is to promote and encourage increased computer usage in schools as a supplement in the teaching and learning processes. The program was implemented by the DepEd together with the Department of Trade and Industry (DTI) alongside the Adopt-a-School Program of the private sector and is expected to provide every public high school in the country with at least one computer unit (NEDA, 2004).

As of June 2008, the DepEd, through its Computerization Program, has been able to provide computer packages to 4,769 public high schools. This amounts to 94% of the total public secondary schools in the country (NEDA, 2009).

The DepEd, together with various stakeholders, have also developed the ICT4E Strategic Plan. The Plan believes that through ICT, more stimulating opportunities for both learning and collaboration are presented to schools and students. It is anchored on the vision, "21st Education for All Filipinos, Anytime, Anywhere" and thus aims for an "ICT-enabled education system that transforms students into dynamic lifelong learning learners and values-centered, productive and responsible citizens". (DepEd, 2009).

The following goals are the targets to be achieved at the end of the implementation period:

1) completely integrate ICT into the curriculum, which includes the development of multimedia instructional materials, and ICT enabled assessment;

2) intensify competency based professional development programs;

3) establish the necessary ICT infrastructure and applications;

4) develop processes and systems that ensure efficient, transparent and effective governance. (DepEd, 2009)

Still, there are many issues and challenges that need to be addressed. There is a lack of financial support, infrastructure and training for teachers. These are all needed so that ICT can be successfully integrated in the education system.

3.2 Technical Vocational Education and Training

In the pursuit of quality technical vocational education and training, the TESDA has formulated the National TESD Research Agenda 2005-2009 to identify research priorities that will be used to support the attainment of the goals and objectives of the agency as stated in the National Technical Education and Skills Development Plan 2005-2009.

It aims to equip TESDA with research-based policies and programs. One of the strategic directions to be pursued by this research agenda pertains to lifelong learning. It calls for a "lifelong learning mechanism/ladderization and articulation". This implies the implementation of Executive Order (EO) 358, To institutionalize a Ladderized[5] Interface between Technical-Vocational Education And Training (TVET) and Higher Education (HE), in order for more opportunities to become available to learners as it will facilitate a smooth transition and progression between TVET and HE or the other way around (http://www.tesda.gov.ph/program.aspx?page_id=51).

---

5) Ladderized Programme - a unified national qualification framework that establishes equivalency pathways and access ramps for easier transition and progression between TVET and higher education (EO 358).

3) Higher Education and Institutions (HEIs)

For higher education and institution, the policy that was passed is related to transnational education. In 2003, CHED issued Memorandum No. 96, series of 2003 which is on the Policies and Guideline on Transnational Education. This policy recognizes borderless teaching and learning as well as expanded the opportunities for transnational education. It also recognizes the rapid developments in information and communications technology and also encourages universities, colleges and training institutions to offer credits and degrees in a borderless environment.

3.3 Regulatory Mechanism for the Philippine Education System

In terms of regulatory mechanism on the Philippine education system, each level is handled by a different government agency. The task of managing the basic and secondary education sector is within the responsibility of the DepEd, post-secondary skills and technical education is handled by the TESDA, and the tertiary and post-graduate education is under the supervision of the CHED. (NEDA, 2004).

Although these three agencies are tasked to regulate the education sector, they have not really utilized their regulatory power on e-learning. It is important to note that DepEd has been involved in the development and implementation of e-learning courses for the eSkwela project, while TESDA has some e-learning courses in its portal, making these two agencies as service providers themselves. On the other hand, CHED does not develop nor implement any e-learning courses, but simply regulates the implementation of e-learning courses.

The following will provide a brief description of the three regulatory agencies.

1) The Department of Education (DepEd)

In August 2001, Republic Act 9155, otherwise called the Governance of Basic

Education Act, was passed which led to the transformation of the Department of Education, Culture and Sports (DECS) to the DepEd. The Act provides the overall framework for (i) school head empowerment by strengthening their leadership roles and (ii) school-based management within the context of transparency and local accountability.

The goal of basic education is to provide the school age population and young adults with skills, knowledge, and values to become caring, self-reliant, productive and patriotic citizens. The DepEd envisions itself "to provide quality basic education that is equitably accessible to all and lay the foundation for life-long learning and service for the common good" (http://www.deped.gov.ph/about_deped/vision_mission.asp).

2) The Technical Vocational and Skills Development Authority (TESDA)

TESDA was created when RA 7796, or the "Technical Education and Skills Development Act", was enacted in 1994. As the name implies, TESDA is the primary agency tasked in handling, managing and supervising technical education and skills development in the country. Aside from providing courses via traditional means, TESDA has already embarked in e-learning. They already have what they call "e-TESDA" which features online courses. Some of the courses offered include automotive trade, agri-mechanical trade, and general vocational trade (http://www. e-tesda. gov.ph/index.asp#)

TESDA provides direction, policies, programs and standards towards quality technical education and skill development.

3) The Commission on Higher Education (CHED)

CHED was created through the enactment of Republic Act 7722 also known as the Higher Education Act of 1994. CHED is attached to the Office of the President for administrative purposes. RA 7722 stipulates that its jurisdiction covers all public and private higher education institutions, including degree granting programs in post-secondary institutions. (http://202.57.63.198/chedwww/index.php/eng/The- Commission)

As the governing body of HEIs, CHED is tasked to formulate and implement policies, plans and programs concerning the higher education system in the Philippines, including the delivery of higher education and its efficiency and development (http: //202.57.63.198/chedwww/index.php/eng/Information).

Chapter 4　Status and Characteristics of e-Learning for Lifelong Learning

For purposes of this paper, this chapter will discuss some of the characteristics and examples of institutions implementing e-learning programs in the country. For early childhood and basic education, the eSkwela project will be highlighted. For technical vocational education and training, the e-Tesda will be presented. For the Higher Education sector, some universities and institutions are identified to present the various courses currently being offered through e-learning.

4.1　Early Childhood and Basic Education

The eSkwela Project. One of the flagship projects which targets out-of-school youth and adults is the eSkwela project. The eSkwela project is a collaboration between the Commission of Information and Communications Technology (CICT) and the DepEd – Bureau of Alternative Learning System (BALS).

The project is a form of Alternative Learning System (ALS). The main difference lies in the mode of delivery because with eSkwela, ICT is being utilized in the provision of education. It uses an array of electronic modules, a learning management system, and the internet in the delivery of ALS. It subscribes to the same principles

of self-paced, learner-centered and life skills approach (http://alseskwela.ning.com/page/eskwela-faqs-for-learner).

Through the eSkwela project, community-based e-learning centers are set up nationwide as the site for "ICT-supported alternative education programs". The main objective of this program is to bridge the gap between the people who were educated and those who were not. It takes advantage of technology by using interactive e-learning materials, employs blended and collaborative modes of instruction and utilizes a performance-based assessment.

Being an ICT-enhanced version of ALS, the eSkwela project follows the ALS curriculum under the BEC 2002. The central idea behind the curriculum is to improve the learners' life skills as well as their lifelong learning skills. The following are the five major learning strands followed by ALS:

1) Communication Skills
2) Critical Thinking and Problem Solving
3) Sustainable Use of Resources/Productivity
4) Development of Self and a Sense of Community
5) Expanding One's World Vision

Upon completion, the learner may opt to take the ALS Accreditation and Equivalency Exam which will allow him/her to obtain a high school diploma upon passing the exam. (http://alseskwela.ning.com/page/eskwela-faqs-for-learner).

From 2007 to 2009, there was an estimate of 2,500 learners per year and 1,488 learners in 2010. The total number of learners reaches a total of 6,309 as of June 2011 (CICT, 2011).

Success of the program is evident by the percentage of passers coming from the eSkwela sites. The following table summarizes the test performance of eSkwela graduates in the A&E Exam from 2008 to 2010.

Table II. Comparative A&E Test Performance, 2008-2010
(eSkwela 1.0 Project Terminal Report, CICT, 2011)

A&E Test Performance	eSkwela Average	National Average
Feb 2008 (4 sites)	57%	29%
Oct 2008 (5 sites)	65%	23%
Oct 2009 (partial: 9 sites)	45%	21%
October 2010 (partial: 16 sites)	63%	33%
Averages	**58%**	**27%**

4.2 Technical Vocational Education and Training

e-TESDA. TESDA has established an e-learning portal called "e-TESDA Portal". The primary objective of e-TESDA is to "deliver quality education online" and to "create a world-class technical worker". Anybody who wishes to access the portal and begin their education may do so anytime, anywhere, provided that there is an internet connection. This allows the learner to study at his most convenient time, and at his own pace, without sacrificing anything to attend a regular school. The Portal is designed for community learning, and contains features such as blogs, photos, videos, profiles and forums where learners can interact and communicate with their virtual teachers and instructors as well as with their co-trainees (http://www.e-tesda. gov.ph/index.asp#).

e-TESDA has a total of nine course offerings, namely:

1) automotive trade;
2) electrical trade;
3) electronics trade;
4) civil trade;

5) mechanical trade;

6) refrigeration and air conditioning trade;

7) agri-mechanical trade;

8) instrumentation and process control;

9) general vocational technology (http://www.eskills.net.ph/moodle/course/category.php?id=53).

At present, the e-TESDA Portal has the Basic Competency Modules for NC I, II, III and IV and has 73,000 students registered in its virtual campus. (http://www.it-u.int/ITU-D/ asp/CMS/Events/2010/ITU-ADB/Philippines/eTESDA.pdf).

The IBM Virtual Campus. This is an online educational institution that offers e-learning courses based on the experience of the company's IT Education Services in IT Technical Training. Some of the courses offered are IT Certification Training and Business and Professional Skills Training (https://www-304.ibm.com/jct03001c/services/learning/ites.wss/ph/en?pageType=page&contentID=a0000820.

4.3 Higher Education Institutions (HEIs)

Although there are numerous HEIs in the Philippines, most of them still offer courses on the traditional mode of delivery which is face to face or residential mode. However, in recent years, there has been an increasing number of HEIs that have attempted to offer e-learning courses. Below are some of the universities and institutions offering e-learning courses.

The University of the Philippines Open University (*UPOU*). Among the HEIs that offer e-learning, it is the UP Open University (UPOU) which was recognized by the Commission on Higher Education as the Center of Excellence in Open and Distance Education. Established on February 23, 1995, The UPOU's vision is to be at the

"forefront of the knowledge society as a leading institution of open learning and distance education". The UPOU embarks on a mission to provide educational opportunities to individuals who aspire for higher education and improve qualifications but are unable to take advantage of traditional modes of education. Moreover, the UPOU, the country's premier cyber university which was created in 1995 to provide quality higher and continuing education through distance education; has always carried the banner: "Lifelong learning for every Filipino, Lifelong Learning for all." (http://www2.upou.edu.ph/about-us/upou-vision-and-mission).

UPOU offers a wide array of academic programs, undergraduate and post-baccalaureate, spread through its three faculties. Moreover, it also offers non-formal courses such as online teaching and learning, new enterprise planning, and professional teaching certification program, among others (http://www2.upou.edu.ph/academic-programs).

Despite being an open university, UPOU is part of the University of the Philippines System, and thus, it employs admission requirements for its students, such as the Undergraduate Assessment Test (UgAT) and separate admission tests for the post-graduate degree programs.

The tuition fee charged per academic unit in the UPOU is the same as the fees charged by the other UP constituent universities that offer traditional learning.

The PUP Open University. The PUP Open University System (PUP OUS) was first established in as early as the 1970s, initially offering non-degree courses. However, the implementation was hampered by the declaration of Martial Law. It was formally re-launched in March of 1990. Since its inception, the PUP OUS has been working on its commitment to "provide quality education through the open and distance learning system, which is responsive to the needs and challenges of a technologically advanced and globally linked society" (http://www.pup.edu.ph/OUS/vmgo.aspx).

The PUP OUS has two schools. The first one is the School of Distance Education where the learner can choose to either study independently while a teacher or tutor monitors, comments and grades his/her work and progress, or study via an online classroom where the learners can communicate with each other and with the teacher virtually.

The second one is the School of Professional Studies, which is further clustered into two: Non-Traditional Study Program (NTSP) and Expanded Tertiary Education Equivalency and Accreditation Program (ETEEAP). NTSP is a self-study and self-paced program wherein the student's background in education, work, and other achievements are evaluated through a rating system and may lead to the completion of a degree. One of the final requirements is a research paper on his/her field of work (http://www.pup.edu.ph/OUS/sps/ntsp.aspx). The ETEEAP, on the other hand, is an educational assessment scheme of the Commission on Higher Education where a "panel of assessors is convened to determine the candidate's knowledge, skills and attitudes relevant to a particular discipline and consequently equivalent credits and appropriate certificates and degrees are awarded by administering higher education institutions" (http://www.pup.edu.ph/OUS/sps/eteeap.aspx).

The Pamantasan ng Lungsod ng Maynila (University of the City of Manila). The university has been engaging in distance education since 1997 but it was in 2002 that it formally established an Open University. The PLM Open University offers both Undergraduate Degree Programs (e.g. Associate in Government Management, Bachelor of Science in Midwifery) and Post-graduate Degree Programs (e.g. Master of Arts in Business Administration, Master of Arts in Nursing).

The Development Academy of the Philippines. The Academy is mandated to provide development education, and pursues this mandate through the Graduate School of Public and Development Management (GSPDM). It offers flexible learning opportunities through alternative strategies and tools that may be used in addressing issues of development and reform. The sole course of the GSPDM offered through an

e-Program is the Master in Public Management (http://www.dap.edu.ph/?page_id=34).

The Graduate School of Public and Development Management (GSPDM) fulfills the development education mandate of the Academy by building and sustaining – through professional education — strategic partnerships of committed, competent, and responsive development managers from the public, private and NGO sectors who shall empower the people towards their attainment of a better quality of life. It provides these development stakeholders with flexible learning opportunities by offering alternative strategies and tools for arriving at diverse solutions to complex development scenarios, and introducing creative ways of managing change, reforming institutions, and addressing human resource concerns. (http://www.dap.edu.ph/?page_ id=34)

University of Sto. Tomas e-Learning Access Programs. The University of Sto. Tomas (UST) is a private Roman Catholic university run by the Order of Preachers in Manila. In 2003, it offered e-learning courses through its e-Learning Access Program (e-LEAP) and was a milestone in UST education.

The National Service Training Program (NSTP) was one of the first to utilize this technology when it offered Civic Welfare Training Service (CWTS) and Literary Training Service (LTS) courses fully online, complete with lectures, notes, assignments, discussion boards, announcements and a grade book for the first semester, enabling students to take examinations in their homes.

In addition, the e-LEAP also offered Web-Enhanced Courses (WEC) for faculties and colleges, which serve as supplementary education to the students. (http://www. varsitarian.net/special_reports/e_leap_usts_online_prowess).

The De La Salle University (DLSU) – Manila. The DLSU-Manila's Center for Educational Multimedia (CREM) trains faculty members in the proper use of the Integrated Virtual Learning Environment (IVLE). In collaboration with the National University of Singapore, De La Salle University's CREM provides faculty members

the online learning system IVLE. This is an innovative program that enhances and complements teaching by making courses available on the Web. It allows the creation of course calendar, discussion forum, distribution list, lecture plan, chat room, subscription services, assignment repositories, staff homepages and a frequently-asked question builder. Through IVLE, teachers can post lesson plans, give and collect assignments online and provide links to relevant web sites. Students can even take tests online which are automatically corrected by the program. (http://www.dlsu.edu.ph/academics/continuing/online_courses/default.asp)

The Asian Institute of Management (AIM) – The World Bank Global Distance Learning Center is a member of the Global Development Learning Network (GDLN). It has facilities that enable " on-time and cost-effective information exchange, knowledge sharing, coordination, consultation, training, and dialogues to organizations, groups, teams and individuals that work to contribute to sustainable development and the reduction of poverty in the developing world" (http://www.worldbank.org.ph/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/PHILIPPINESEXTN/0,,contentMDK:20236598~menuPK:488905~pagePK:1497618~piPK:217854~theSitePK:332982,00.html).

The Department of Agriculture (*DA*). The Department has started incorporating technology in the delivery of their services through the DA e-Extension Program, where e-learning for agriculture and fisheries is a major component. The lead implementing agency in this e-Extension Program is the Agricultural Training Institute and collaborates with other government agencies, universities and NGOs. The e-Extension Program has five course categories, namely, crop, livestock, marine fisheries, social technology and digital technology and information kits (http://www.e-extension.gov.ph/elearning/course/index.php).

Table Ⅲ provides a short summary of the institutions offering e-learning programs and courses.

Institution	Background and Course Offerings	Website
DepED		
eSkwela	The eSkwela project is a collaboration between the CICT and the DepEd −BALS. eSkwela is a form of Alternative Learning System where ICT is being utilized in the provision of education. It uses an array of electronic modules, a learning management system, and the internet in the delivery of ALS. (http://alseskwela.ning.com/page/eskwela-faqs-for-learner). The following are the five major learning strands followed by ALS eSkwela based on the Basic Education Curriculum (BEC) 2002: 1. Communication Skills 2. Critical Thinking and Problem Solving 3. Sustainable Use of Resources/Productivity 4. Development of Self and a Sense of Community 5. Expanding One's World Vision	http://alseskwela.ning.com/
Technical/Vocational		
e-TESDA Portal	e-TESDA is the online delivery arm of TESDA. The e-TESDA Portal allows anybody who wishes to improve their technical and vocational skills to learn anywhere with an internet connection. The Portal contains features that allow students to post blogs, upload photos, create user profiles and participate in forums. These features make interaction possible between and among virtual teachers, instructors and co-trainees. e-TESDA has a total of nine course offerings, namely: automotive trade, electrical trade, electronics trade, civil	http://www.e-tesda.gov.ph/index.asp# http://www.eskills.net.ph/moodle/course/category.php?id=53

	trade, mechanical trade, refrigeration and air conditioning trade, agri-mechanical trade, instrumentation and process control, and general vocational technology (http://www.eskills.net.ph/moodle/course/category.php?id=53).	
IBM Virtual Campus	The IBM Virtual Campus is an online educational institution that offers e-learning courses based on the experience of the company's IT Education Services in IT Technical Training. Some of the courses offered are IT Certification Training and Business and Professional Skills Training as well as Integrated Career Training Programs that focus on specific job roles (https://www-304.ibm.com/jct03001c/services/learning/ites.wss/ph/en?pageType=page&contentID=a0000820).	https://www-304.ibm.com/jct03001c/services/learning/ites.wss/ph/en?pageType=page&contentID=a0000820
HEIs (CHED)		
UP Open University	The UPOU is the fifth constituent university of the UP System. It was established on the 23rd of February 1995 and has since been working on its mission to "provide education opportunities to individuals aspiring for higher education and improved qualifications but who are unable to take advantage of traditional modes of education" (http://www2.upou.edu.ph/about-us/upou-vision-and-mission).

With its vision to be at the "forefront of the knowledge society as a leading institution of open learning and distance education", UPOU has already been recognized by the CHED as the Center of Excellence in Open and Distance Education (http://www2.upou.edu.ph/about-us/upou-vision-and-mission).

UPOU embarks on both formal and non-formal education. Its degree-granting courses can be found among three faculties, namely, Faculty of Education, Faculty of Information and Communication Studies, and | http://www.upou.org/academic/programs/program.htm

http://www2.upou.edu.ph/about-us/upou-vision-and-mission |

	Faculty of Management and Development Studies.	
PUP Open University	The PUP OUS has been working on its commitment to "provide quality education through the open and distance learning system, which is responsive to the needs and challenges of a technologically advanced and globally linked society" (http://www.pup.edu.ph/OUS/vmgo.aspx). The PUP OUS has two schools. The first one is the School of Distance Education where the learner can choose to either study independently while a teacher or tutor monitors, comments and grades his/her work and progress, or study via an online classroom where the learners can communicate with each other and with the teacher virtually. The second one is the School of Professional Studies, which is further clustered into two: Non-Traditional Study Program (NTSP) and Expanded Tertiary Education Equivalency and Accreditation Program (ETEEAP).	http://www.pup.edu.ph/OUS/
Pamantasan ng Lungsod ng Maynila	Since 1997, providing distance education for professionals and adults alike were already carried out by the Pamantasan ng Lungsod ng Maynila through its partner institutions. By 2002, it has formally launched its Open University. The Open University was created to provide individuals with opportunities to improve their qualifications albeit their inability to attend traditional schooling due to personal and professional commitments (http://www.bookrags.com/wiki/Pamantasan_ng_Lungsod_ng_Maynila,_Open_University). The PLM Open University offers undergraduate programs in the fields of Public Administration, Midwifery, and Community Health Service. For its post-graduate programs, it offers Master of Arts in Business Administration, Master in Community Health Service,	http://www.bookrags.com/wiki/Pamantasan_ng_Lungsod_ng_Maynila,_Open_University

	Master of Arts in Government Management and, Master of Arts in Nursing (http://www.bookrags.com/wiki/Pamantasan_ng_Lungsod_ng_Maynila,_Open_University).	
Development Academy of the Philippines	The Development Academy of the Philippines is mandated to provide development education, and pursues this mandate through the Graduate School of Public and Development Management (GSPDM). It offers flexible learning opportunities through alternative strategies and tools that may be used in addressing issues of development and reform. The sole course of the GSPDM offered through an e-Program is the Master in Public Management (http://www.dap.edu.ph/?page_id=34).	http://www.dap.edu.ph/?page_id=34
De La Salle University (DLSU) – Manila	The De La Salle University-Manila is using the Integrated Virtual Learning Environment (IVLE) as a supplementary tool for their classes. This use of ICT enables them to make their courses and course materials available online. Among the other features of IVLE is the creation of course calendars, forums, lecture plans, chat rooms, and can even serve as assignment repositories. It can also do as much as conduct online examinations and correct them as well. The IVLE was developed in collaboration with the National University of Singapore and was initially shared with the UP Open University (http://www.dlsu.edu.ph/academics/continuing/online_courses/default.asp).l	http://www.dlsu.edu.ph/academics/continuing/online_courses/default.asp
Asian Institute of Management (AIM) – World Bank Global Distance Learning Center	Asian Institute of Management (AIM) - World Bank Global Distance Learning Center is a member of the Global Development Learning Network (GDLN). It has facilities that enable "on-time and cost-effective information exchange, knowledge sharing, coordination, consultation, training, and dialogues to organizations, groups, teams and individuals that work to contribute to sustainable development and the reduction of poverty in the developing world".	http://www.worldbank.org.ph/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/PHILIPPINESEXTN/0,,contentMDK:20236598~menuPK:488905~pagePK:1497618~piPK:217854~theSitePK:3

		32982,00.html
Department of Agriculture e-Extension Program	A major component of the DA e-Extension Program is the e-Learning for agriculture and fisheries. Agricultural Training Institute collaborates with other government agencies, universities and NGOs to provide e-Learning programs. The e-Extension Program offers five course categories. First, crop which is all about the production and management of crops. Second, livestock where pig is considered as an enterprise. Third, marine and fisheries which zeroes in on the production of the Tilapia finger-lings as well seaweeds. Fourth, social technology which instructs the learner in the areas of training management, human communication, as well as agricultural marketing. Finally, the e-Extension program offers digital technology and information kits (http://www.e-extension. gov.ph/elearning/course/index.php).	http://www.e-extension. gov.ph/elearning/ course/index.php

In summary, there is still much to be done in terms of implementing and integrating e-learning in the Philippines. The above mentioned educational institutions and agencies are among the few organizations in the country that practice e-learning.

Institutions may start incorporating e-learning in the delivery of their services, especially agencies that are into capacity building. This way, more people will gain access to the services they provide while reducing cost at the same time. As time progresses, the role of e-learning will continue to increase in the achievement of the Philippine goal of "Education for All" and ultimately, to lifelong learning.

<div style="border: 2px solid black; border-radius: 10px;">

Chapter 5   # Typical e-learning for lifelong learning programs in the Philippines

</div>

E-learning in the Philippines has several modes. This chapter will discuss typical courses for each of the education sector. However, a more lengthy discussion will be devoted to the formal course that is being offered by the UPOU.

5.1   The eSkwela Project for the Department of Education

The eSkwela is a flagship project of the CICT in partnership with the DepEd –BALS. eSkwela injects ICT in its delivery of education through the use of relevant and interactive e-learning materials. Learning facilitators make use of ICT-supported module guides to stimulate the learners to be more active in their learning process. The learning environment is blended and self-paced. Supplementary materials and activities are assigned by the facilitator based on agreed-upon learning agreements. Learners are also encouraged to use ICT tools and build their e-portfolios (CICT, 2011).

Upon completion, the learner may opt to take the ALS Accreditation and Equivalency Exam which will allow him/her to obtain a high school diploma upon passing the exam.

Target Audience Orientation. The target beneficiaries of the eSkwela project are out-of-school youth and adults, aged 15 and above, who were unable to finish their secondary education in the traditional school. An aspirant learner who wishes to enter an eSkwela center must qualify by taking the Functional Literacy Test (FLT), the

instrument used to assess the level of education acquired by the examinee.

Once accepted at the eSkwela Center, the learner and the learning facilitator will agree on a schedule of learning sessions, taking into consideration factors such as work and availability. When agreed upon and finalized, the learner is bound to follow the said learning schedule.

There are other stakeholders in this project other than the learners. In order to gain the support of the local stakeholders, community mobilization and social marketing activities are conducted. Representatives from the community and interested parties are convened to form a local steering committee to keep an eye on the project's operations. To guarantee the sustainability of the partnership, they are formalized via MOAs (CICT, 2011).

Content. In line with the eSkwela Instructional Model that integrates ICT in the delivery of ALS, 47% of the project funding went to content development or the conversion of the existing print modules from the A & E program, livelihood courses and Computer and Internet Literacy Course (CILC) into e-learning modules. The process of content development resulted into 283 A & E modules, 4 voctech courses, and 7 CILC modules that are all available for free public delivery.

Program/Course Design. The average eModule contains the following features:
- ー 300 hours development time
- ー Maximum of 50 screens
- ー With a maximum of
  - 1-hour video OR
  - 40 illustrations OR
  - 10-minute purely 2D animation OR
  - a combination of the above using the following conversion: 30-minute video = 5-minute animation = 20 illustrations

Technology. The eSkwela Learning and Content Management System is moodle-based, and acts as the virtual classroom in the eSkwela Center. The eModules, which serve as the main resources used by the learners, are uploaded in the moodle-based Learning Management System. The eModule contains necessary concepts and information, and activities such as exercises and games to assist the learners comprehend the concepts being studied about.

Evaluation & Review. In order to gather the feedback of the learners and to gauge the effectiveness of the learning management system of eSkwela, the project team has developed the module guide evaluation form for learners.
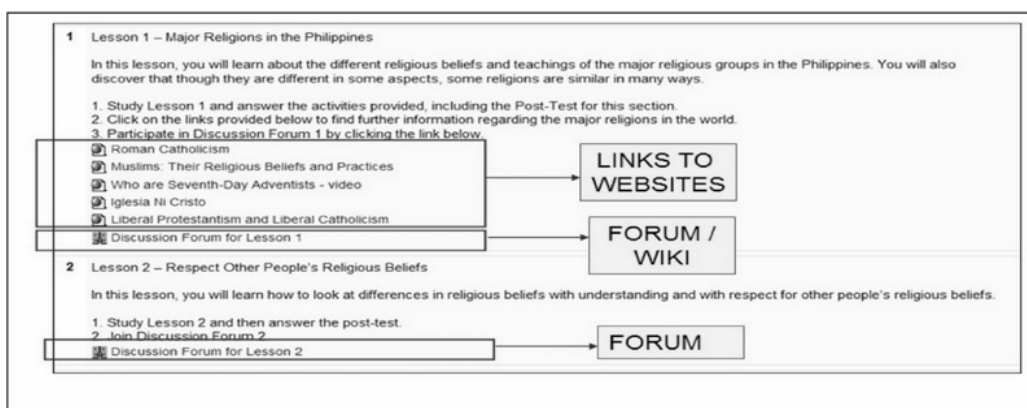
Figure 2 eSkwela's Learning Management System (CICT, 2011)

5.2 The e-TESDA Portal for TESDA

TESDA has established an e-learning portal called "e-TESDA Portal". The primary objective of e-TESDA is to "deliver quality education online" and to "create a world-class technical worker". Anybody who wishes to access the portal and begin their education may do so anytime, anywhere, provided that there is an internet connection. This allows the learner to study at his most convenient time, and at

his own pace, without sacrificing anything to attend a regular school. The Portal is designed for community learning, and contains features such as blogs, photos, videos, profiles and forums where learners can interact and communicate with their virtual teachers and instructors as well as with their co-trainees (http://www.e-tesda. gov.ph/index.asp#)

Program /Course Design. e-TESDA has a total of nine course offerings, namely: automotive trade, electrical trade, electronics trade, civil trade, mechanical trade, re-frigeration and air conditioning trade, agri-mechanical trade, instrumentation and process control, and general vocational technology. (http://www.eskills.net.ph/moo-dle/course/category.php?id=53).

The e-TESDA Portal also contains Basic Competency Modules for NC I, II, III and IV.
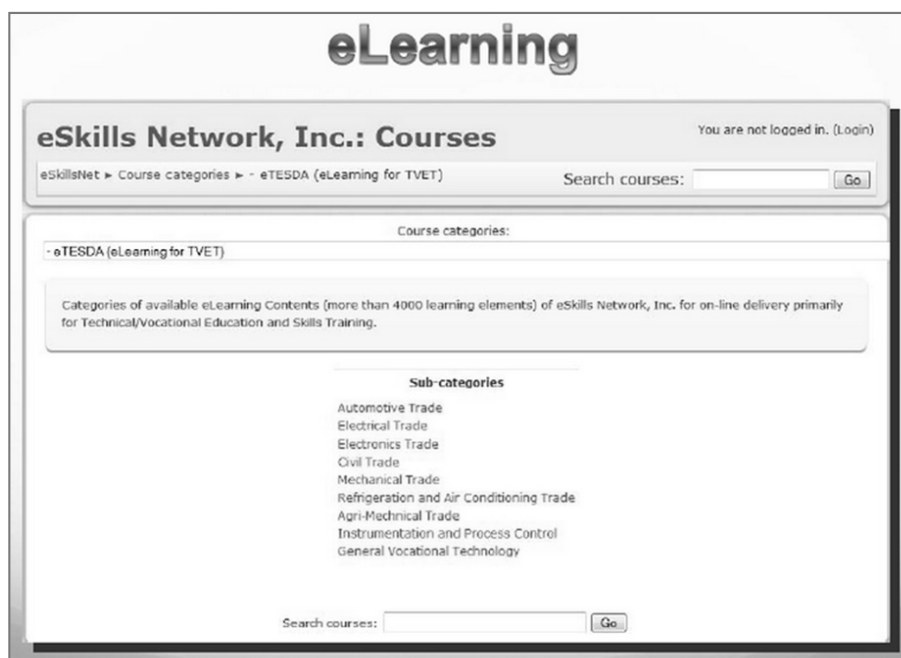
Figure 3 eTESDA's Learning Management System
(http://www.itu.int/ITU-D/asp/CMS/Events/2010/ITU-ADB/Philippines/eTESDA.pdf)

5.3 The University of the Philippines Open University as the Center for Excellence on Distance Education

The UPOU offers various formal and non-formal courses through distance education. Arinto (2011) prepared a typology of online courses offered at the UPOU. The different types of online courses can be classified as follows:

- Distance online support (not VLE-based) – This is characterized by the use of print based materials and CD Rom (in some courses) learning materials and the use of email in the interaction between learner and tutor. There is no Virtual Learning Environment (VLE) being used in this type of courses. This is also apparent in courses that number of students.
- Distance online support (VLE-based) – The learning resources are also print based or in CD ROM VLE/course site tools like the discussion forums/boards, bulletin/announcement board, and assignment drop box or bin
- Online resource-based (asynchronous) – For these types of courses, the learning resources are composed of a digital course pack consisting of: study guides and readings; course guide; presentations; web pages and videos. The VLE/course site tools like the online file repository, discussion forums/boards, bulletin/ announcement board, and assignment drop box or bin
- Online resource-based (synchronous) – The digital learning resources are also composed of study guides and readings; course guide; presentations; web pages. In addition, a video is also uploaded. In addition the VLE / course site tools like the online file repository, discussion forums / boards, bulletin / announcement board, and assignment drop box or bin + Tools outside the VLE such as videochat applications (e.g. WizIQ, Yahoo Messenger, Googlechat, Skype)
- Online discussion-based (asynchronous) - Digital course pack + discussion generated learning resources, such as class wikis. VLE/course site tools like

the online file repository, discussion forums/boards, bulletin/announce-ment board+ Tools outside the VLE like file sharing applications and blogsites or e-portfolio applications

- Online discussion-based (synchronous) － Digital course pack + discussion generated learning resources, such as chat summaries. VLE/course site tools like the online file repository, discussion forums/boards, bulletin/announcement board, and assignment drop box or bin + Tools outside the VLE like file sharing applications and blogsites or e-portfolio applications, and chat applications (e.g. WizIQ, Yahoo Messenger, Googlechat, Skype)

To illustrate further the typical mode of a formal e-learning course at UPOU, the courses are conducted through a virtual learning environment. Interaction is done online through UPOU's Learning Management System which is the "MyPortal." Online communication tools include the use of asynchronous communication tools such as discussion forum, wiki, e-portfolio, emails, among others. Further, synchronous communication is done through chats and online webcasts.

Information and organization of program. The UPOU provides information regarding the course or program including its objectives and requirements. These are all available from the website. The information also include the methodology, the number of hours/units, and even the contact addresses of the person in charge of the specific program or course. In some instances, these are also available through printed materials and from social networking sites. The learners are provided information on the requirements of the program or course. They are also given an orientation on the workload and schedule.

Program/Course Design. Each course is handled by a Faculty-in-Charge (FIC) or a tutor. They provide motivation, tutorial and learning materials to the learners. There are assignments and exams that are given to the students in order to assess the extent of their knowledge on the courses. In some instances, collaborative learning is also

encouraged. The materials are reusable. There is also a table of contents for the materials. The links are also tested to ensure that the online resources are still available.

Technology. The UPOU's learning management system is "MyPortal". It provides the learners a stable virtual environment where discussion forum, chat, wiki, blogs and other tools can be utilized.

Evaluation & Review. All the learners are provided an opportunity to give their feedback in order to improve the course through a survey that is given every time a course is about to end.

Figure Ⅳ shows the screen of a typical formal course at the UPOU Myportal.

Figure Ⅳ Course site of the Public Policy Course, UPOU

Chapter 6 Recommendations and Prospects
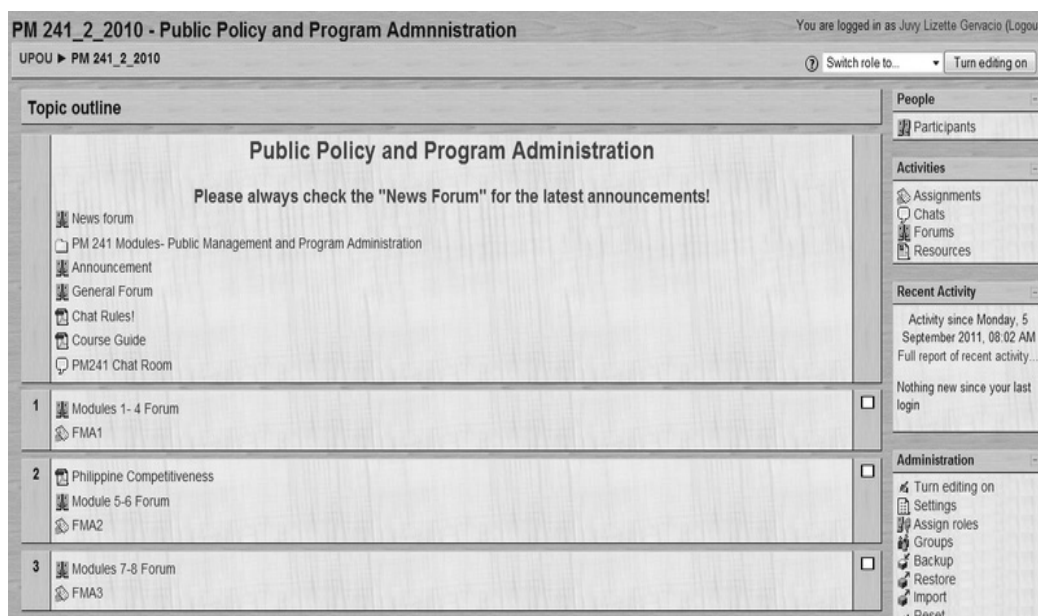
There is still much to be done in terms of implementing and integrating e-learning for Lifelong Learning in the Philippines. The following are some of the recommendations and prospects for the Philippines.

1) Integration of the concepts of e-Learning and Lifelong Learning as a public policy. There is a need to integrate these two concepts together and highlight the potentials and opportunities on the use of e-learning in lifelong learning. Although there are already policy pronouncements regarding these concepts, an e-learning policy for the Philippines will be relevant to lifelong learning. The policy should recognize that e-learning plays an important role in addressing the problems of the education system in the country. The policy should also allot a budget for the development of e-learning programs and for capacity building of regulators and implementers.

A recent development in policy formulation is the approval at the House of Representatives of the House Bill 4883 or the Open Learning and Distance Education Act of 2011. Under the Bill, the three institutions are recognized as the regulators of open learning and distance education. This will have an impact on e-learning for lifelong learning.

2) Regulation of e-learning for lifelong learning. The three regulatory agencies related to education are already in place. However, their role in regulating e-learning as a tool for lifelong learning should also be highlighted. The DepEd and TESDA not only regulate but also develop and implement e-learning programs, whereas the CHED is more focused on regulating the e-learning programs delivered by higher education and institutions.

It is important that these three government agencies should also be able to maintain a record of information on existing institutions and courses offering

e-learning courses including the nature of these courses. Moreover, they should also disseminate information, set standards and provide policy directions to all programs related to e-learning.

3) These three regulatory institutions should also be able to share information and collaborate with other organizations like the Southeast Asian Center for Lifelong Learning for Sustainable Development under the UNESCO National Commission of the Philippines and the University of the Philippines Open University. The UPOU can share its good practices on developing and implementing e-learning programs.

4) Capacity building for implementers. There is a need to orient the concerned agencies regarding the concepts of e-learning and lifelong learning. As regulators, they have to be continuously be updated with the recent developments in the field. A framework for capacity building on e-learning for lifelong learning should be put into place.

5) Quality Assurance. One of the major tasks of the regulatory agencies is to ensure quality in the e-learning courses being developed and implemented. Hence, it is important that a framework for quality assurance should be developed and implemented by the different regulatory agencies.

6) Use of Open Educational Resources. One of the prospects for e-learning for lifelong learning is the development and utilization of open educational resources. Again, the government should create a facility for the review and creation of open educational resources that can be used and shared by the learning community.

References

Arinto, Patricia and Garcia, Primo. (2009). *Online Teaching and Learning 2nd Edition.* University of the Philippines Open University.

Arinto, Patricia. (2011). "Pedagogical Designs for Online Distance Learning." Paper presented by Patricia Arinto at the 24th ICDE World Conference on Open and Distance Learning, 2-5 October 2011, Bali, Indonesia.

Caccam, Anne., et al. "E-learning in the Philippines through the Use of Affordable, High-Quality, and Custom-Designed Development Tools". Retrieved 5 August 2011 from http://bl4.bayanihan.gov.ph/downloads/E-learning%20in%20the%20 Philippines% 20through%20the%20Use%20of%20Affordable,%20High-Quality, %20and%20 Custom-Designed%20Development%20Tools.pdf.

Commission on Higher Education (2010). *Summary of Tertiary Enrollment by Discipline Group and Academic Year 2001-2002 to 2012-2013.* Retrieved 5 September 2011 from http://202.57.63.198/chedwww/index.php/eng/Information/Statistics .

Commission on Higher Education (2010). *Summary of Tertiary Graduates by Discipline Group and Academic Year 2001-2002 to 2012-2013.* Retrieved 5 September 2011 from http://202.57.63.198/chedwww/index.php/eng/Information/Statistics.

Commission on Information and Communications Technology (2011). *eSkwela Project Terminal Report: for the period August 2007-June 2011.* Philippines.

De Leon, Jordan Mari (2005). *e-Leap: UST's online prowess*. The Varsitarian, The Official Student Publication of the University of Santo Tomas Vol. LXXVII No. 7. Accessed 01 August 2011 at http://www.varsitarian.net/special_reports/e_leap_ usts_online_prowess.

Strategic Plan (Draft DepED ICT4E Strategic Plan). Retrieved 23 August 2011 from http://www.deped.gov.ph/updates/updateslinks.asp?id=567.

Department of Education (2009). *Five-Year Information and Communication Technology for Education*

eTESDA: Expanding Access and Opportunities to Quality TVET thru ICT. Accessed 2 September 2011 at http://www.itu.int/ITU-D/asp/CMS/Events/2010/ITU-ADB/Philippines/eTESDA.pdf

Lapus, Jesli (2008). *Opening Address*. Regional Workshop on Lifelong Learning for Sustainable Development: Vision, Policy and Practice in Southeast Asia, March 3, 2008. Mandaluyong City. Retrieved 12 August 2011 from http://www.deped.gov.ph/jal/arch0003.html.

Lapus, Jesli (2008). *The Education System Facing the Challenges of the 21st Century, Country: Philippines*, Department of Education. Presented on 25-28 November 2008 at Geneva, Switzerland. Retrieved 23 August 2011 from http://www.ibe.unesco.org/National_Reports/ICE_2008/philippines_NR08.pdf.

National Economic and Development Authority (2004). *Medium Term Philippine Development Plan 2004-2010*.

National Economic and Development Authority (2009). *Updated Medium Term Philippine Development Plan 2004-2010*.

National Economic and Development Authority (2011). *Philippine Development Plan 2011-2016 Chapter 8: Social Development*. Accessed 01 August 2011 at http://devplan.neda.gov.ph/chapter8.php.

Philippine Education for All 2015: Implementation and Challenges. Retrieved 10 June 2011 from http://planipolis.iiep.unesco.org/upload/Philippines/Philippines_EFA_MDA.pdf.

Soliven, Preciosa and Reyes, Marie Antoinette (2008). *The Development and State of the Art of Adult Learning and Education (ALE): National Report of the Republic of the Philippines*. UNESCO. Accessed 5 September 2011 at http://www.unesco.org/fileadmin/MULTIMEDIA/INSTITUTES/UIL/confintea/pdf/National_Reports/Asia%20-%20Pacific/Philippines.pdf.

Websites:

Commission on Higher Education (CHED) Website. Accessed 18 August 2011 at http://202.57.63.198/chedwww/index.php.

De La Salle University (DLSU) Website. Accessed 18 June 2011 at http://www.dlsu.edu.ph/academics/continuing/online_courses/default.asp

Department of Education (DepEd) Website. Accessed 18 August 2011 at http://www.deped.gov.ph/.Z

Development Academy of the Philippines (DAP) Website. Accessed 18 June 2011 at http://www.dap.edu.ph/?page_id=34

e-Learning for Agriculture and Fisheries Website. Accessed 18 June 2011 at http://www.e-extension.gov.ph/elearning/course/index.php.

eSkills Network, Inc. Accessed 23 August 2011 at http://www.eskills.net.ph/moodle/course/category.php?id=53.

eSkwela Project Website. Accessed 23 August 2011 at http://alseskwela.ning.com/.

e-TESDA Portal. Accessed 20 August 2011 at http://www.e-tesda.gov.ph/index.asp#

IBM Website. Accessed 18 August 2011 at https://www-304.ibm.com/jct03001c/services/learning/ites.wss/ph/en?pageType=page&contentID=a0000820.

Polytechnic University of the Philippines (UPOU) Website. Accessed 18 June 2011 at http://www.pup.edu.ph/OUS/.

Technical Education and Skills Development Authority (TESDA) Website. Accessed 18 June 2011 at http://www.tesda.gov.ph/.

UP Open University (UPOU) Website. Accessed 18 June 2011 at http://www2.upou.edu.ph/.

World Bank Website. Accessed 18 August 2011 at http://www.worldbank.org.ph/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/PHILIPPINESEXTN/0,,contentMDK:20236598~menuPK:488905~pagePK:1497618~piPK:217854~theSitePK:332982,00.html

e-Learning for lifelong Learning in the United Kingdom

Sarah Jones

Distance Learning Support Manager, Distance Learning,
SOAS, University of London

Sarah Jones

Sarah is a distance learning specialist in the area of student support and retention. Educated through the University of Southampton, Sarah has been working in the field of Responsible Admissions and enrollment for over ten years within international departments, both at the University of London and American Intercontinental University - London. Her research includes 'Improving Student Retention in Distance Education at the University of London' sponsored by the Centre for Distance Education. Within her own department, this research increased progression by 30% within two years. Sarah is currently researching retention and student support in Social Networks.

Sarah also works as part of the University of London lead college advisory group, supporting education for 48,000 students in 180 countries. She advises on retention and development of sustainable, scalable student support systems to ensure academic and individual personal success.

e-learning for lifelong Learning in the United Kingdom

This paper will cover 6 chapters on the subject of e-learning in the United Kingdom. Chapter one describes in detail the UK education system, focussing on the English system, which educates the majority of the population. It covers from Pre-school through the compulsory system, the traditional higher education system, professional qualification and adult education. It includes information on the institutions that provide this education as well as the examining bodies and the government accreditation systems.

Chapters two covers the concept and definition of e-learning and lifelong learning in the United Kingdom, with definitions by the regional governments that the UK comprises of as well as the central Department of Education in the UK. It also covers some of the conceptions of the benefits from lifelong learning.

Chapter three looks at two areas of regulation and funding for e-learning. This is a collaborative group called JISC (Joint Information Systems Committee) and the three other main independent provider of lifelong learning and the technological methodology they use.

Chapter 4 looks at the government numbers for education and spending as well as a brief look at the current political situation in the UK and how that is impacting all education. It also looks at the gulf between technology and current learning methods.

Chapter five gives case studies for e-learning informing lifelong learning. The case studies come from the organisation, LearnDirect and give a very personal account from the point of view of the learner. Then it looks at the Open University and how technology is used to make sure the student goes into the right programme / course at the right level and finishes with two postgraduate examples of online enrolment / induction and the online study centre.

Chapter six looks at the prospects of e-learning and distance learning in the United Kingdom. Due to the unsettled nature of British politics, it looks at the recom-

mendations that the group could consider for moving forward in a more collaborative manner.

Recommendations from this Paper

These recommendations will be discussed in detail in Chapter 6.

1.	Create a table of comparisons for education for each nation from pre-school to basic adult learning to PhD and all the variations between.
2.	Discuss and agree a universal definition of 'lifelong learning'
3.	Discuss and agree a universal definition for e-learning
4.	Create a table of international benefits for e-learning for lifelong learning
5.	Create a simplified list of the best national level providers for e-learning for lifelong learning
6.	Create a simplified list of the leading case studies from the countries contributing to this white paper. This should include different levels or qualification levels and throughout the learning process from initial enquiry through to alumni and career support
7.	Decide on an area of specialisation for e-ASEM members to concentrate their attention on.
8.	Compile statistical analysis in this specialised area or areas that can be used as an international starting point.
9.	Create an international pamphlet combining the information agreed on above specialised area with recommendations on standardising the area.
10.	Agree on a country to champion the decisions of the group and to try and use official paper from recommendation 9.

Key Terminology

Term / Acronym	Name	Description
GCSE	General Secondary Education Certificate	The qualification studied for at the end of the compulsory education (age 16)
LEA	Local Education Authority	The local authority that is responsible for schools within their jurisdiction
FE	Further Education	Education taken between GCSE and University
QCA	Qualification and Curriculum Authority	Government authority responsible for monitoring qualification examination boards
LSC	Learning and Skills Councils	National and regional council looking at lifelong learning for the UK
GCE A Level	General Certificate of Education – Advanced Level	The qualification studied for at the end of the Further Education
HE	Higher Education	Qualifications at degree level and higher
QAA	Quality Assurance Agency	Government body that inspects and examines HE institutions to ensure maintenance of standards.
OU	Open University	Educating people outside the standard education system
FHEQ	Framework for Higher Education	Structure or qualifications within Higher Education
JISC	Joint Information Systems Committee	Government body combining traditional teaching methods and a cohesive technological knowledge
Ufi	University for Industry	Founded as a government QUANGO aiming to educate adults without literacy and numeracy, delivering essential skills for the workplace
QUANGO	Quasi Non-governmental organisation	An organisation to which the government has devolved power.
NEC	National Extension College	A not for profit organisation aiming to help people fit learning into their lives
WEA	Workers Education Association	This is a voluntary body that aims to help adults continue with their education through all different forms, lengths and qualifications
Browne Report		A report in 2010 into Higher Education and student funding

Chapter 1 Educational systems

1.1 Overview of the United Kingdom Education System

Education has a long history in the United Kingdom. Education for general society has been available to all for over 400 years but it was not until the Education Act of 1870 that a national system was developed and education was compulsory for 5 to 13 year old. The education was provided by the state and was free. Since 1870, education has developed and changed into the system that runs today.

The United Kingdom Education system is divided into a series of compatible and advancing levels. Education is now compulsory between the age of five and 16. The division within this age range is primary (infant, junior and / or middle) and secondary education. There is a further division into state and private sector education with 93% of the school age population attending state schools which are funded by the government or independent organisations (also known as 'grant maintained schools'. These are still considered state funded). The key qualification that most students test on at 16, before leaving school is General Secondary Education Certificate or GCSE. The government aims for all school leavers to have achieved five GCSE's grade A* – C, with A* being the highest mark.

Education at a local level is funded by a Local Education Authority (LEA) .Most LEAs also offer a pre-primary school level called Nursery or reception classes within schools. Separately parents organise informal reception groups as education for the child as well as support for the parent.

The stage of education after the compulsory age of attendance is called Further Education or FE and covers study taken mainly in the 16 – 18 age range. Programmes of study, both academic and vocational, are offered in sixth forms (at schools also offering secondary education) and FE colleges. The qualifications gained on leaving school or college at 18 are Advanced Subsidiary (AS) or General Certificate of

Education – Advanced Level (GCE A-levels).

University level education is normally offered to those that complete the previous level of education, aged 18 or over and enter on agreed set of predetermined criteria. This normally leads to the award of an undergraduate or Bachelors academic degree (3 years of study). Until 2011, most Universities were state funded with a small 'top up' fee paid by the student towards tuition. The 2010 elected Conservative government has withdrawn a large amount of state funding for non scientific studies and from 2012, students will pay most of their academic tuition fees (see chapter 4 for more detail).

Age on 31/08	Year Name	Curriculum Stage	School	
3	Nursery	Foundation	Nursery School	
4	Nursery		Infant School	
5	Year 1	Key Stage 1	Infant School	
6	Year 2			
7	Year 3	Key Stage 2	Junior School	
8	Year 4			
9	Year 5			
10	Year 6			
11	Year 7	Key Stage 3	Secondary School	Secondary school with sixth form
12	Year 8			
13	Year 9			
14	Year 10	GCSE		
15	Year 11			
16	Year 12	Sixth Form/A&AS Levels, voctional studies	College/Sixth Form	
17	Year 13			
18		Bachelor Level degree	University	
19				
20				
21		Masters level degree	University	
22		PhD Degree	University	
23				
24				

1.2 Physical school and their funding

Primary Schools

At primary level, the following types of school are available:

- Community schools – Local Education Authority schools
- Voluntary controlled schools – These are built by an independent body (usually a church) but are maintained by the LEAs, who are also responsible for admissions and staffing
- Voluntary-aided schools – These are built by an independent body (often a church, but also other faith groups and non-denominational organisations). They are maintained by a governing body which is also responsible for staffing and admissions.
- Foundation schools – These are built and maintained by an independent body, which also has control over staffing and admissions.

Secondary Schools

The UK has approximately 5,000 secondary schools operated by the state. Most of these schools are mixed ability 'Comprehensive' Schools and are either maintained by the Local Education Authority or an independent body and are known as Grant Maintained Schools (though are still state funded) and approximately 85% of pupils attend these schools.

There is a further state funded school called 'Grammar' schools. This is for the top 20-30% achievers. These are now in decline with less than 165 still operating. Since the 1980's there has also been City Academies and City Technology Colleges. These are state funded and target specialist areas such as language, sport or arts. There is a further 2,600 non-state or independent schools (private or public school). This accounts for approximately 650,000 students and have private support means such as fees and benefactors. They are subject to the same inspection for quality assurance as the state schools.

Further Education Colleges / Sixth Form

There are over 500 state-maintained further education colleges funded by a LEA. Most are non-specialist though some have targeted areas such as arts, sports or more vocational subjects like Building.

Independent colleges offer a wide range of courses, from GCSE level to those which lead to professional and technical qualifications. The British Accreditation Council for Independent Further and Higher Education (BAC) defines, monitors and improves standards for independent colleges, and accredits those which meet its requirements. Accreditation by BAC is not compulsory, but offers a way of safeguarding standards.

Universities and Colleges of Higher Education

There are approximately 300 Universities operating through the UCAS system (University and College Admission System). UCAS is the organisation responsible for managing nearly all entries into Undergraduate degree programmes. Most of these Universities provide the opportunity for study beyond undergraduate levels.

Special Education Needs

Children with special educational needs (SEN) which requires schooling outside of the standard system can find state provision from nursery level to age 16. These will cater for emotional, behavioural and learning difficulties as well as physical difficulties. There are 1,500 specialist schools, offering day and residential care with approximately 125 pupils in each institution.

Compulsory Education Qualification Structure / National Curriculum / Qualifications

The National Curriculum is the government designed framework of the educational targets and subjects that schools are expected to follow. It covers Key Stages 1 – 3 and GCSE's. The delivery method is largely at the school's discretion but all pupils will be assessed in Maths, Science and English via classroom assessment and national testing at the age of 7, 11 and 16.

There are 12 subjects taught from the National Curriculum over the 4 stages educa-

tional stage: English (core), Mathematics (core), Science (core), Design and Technology, Information and Communication Technology, History, Geography, Modern Foreign Languages, Art and Design, Music, Physical Education, Citizenship. Pupils are tested at the end of each key stage to monitor their progress, though the results are not recognised outside the education system, with the exception of the final examinations − GCSE's. Pupils do not necessarily study all 12 subjects to GCSE as allowances are made according to ability, aptitude and interest. The core subjects are examined.

Compulsory Education Examining Boards

There are three major examining boards recognised by the UK government and the Qualifications and Curriculum Authority (QCA) who examine GCSE, A Level and vocational qualifications (they set the formal assessment elements of each qualification and are responsible for the verification of grading nationwide)

- OCR – Oxford, Cambridge and RSA Examinations
- AQA – Assessment and Qualification Alliance
- Edexcel – Education and Excellence

Each examining group designs its own syllabus, but these must conform to criteria defined and monitored by the Qualifications and Curriculum Authority (QCA). The award of a grade is intended to show that a candidate has met the level of knowledge and skill defined in the criteria.

Grading

The grades offered at GCSE are A*, A, B, C, D, E, F, G and Unclassified. The government aims to have all school leavers completing 5 GCSE with grade A-C (including the 3 core subjects). The papers are further divided down into tiers. Students taking the foundation tier can only achieve grades G − C and higher tier grades D − A*. The aptitude of the student towards the end of their studies determines the tier paper they take. The student cannot score outside their tier.

Education Age 16 – 18 Qualification Structure / National Curriculum / Qualifications

Learning and Skills Councils (LSCs)

In 2001, the government introduced the Learning and Skills Councils who were to oversee all further education (16-18 years) and training with a more targeted ideal of 'lifelong learning'. There is a national LSC based in Coventry with a further 47 regional groups around the United Kingdom. Each LSC has 16 committee members with varying backgrounds, including businesses, local authorities, education, voluntary and community services.

The main qualifications that can be achieved in this age range are:

i. General Certificate of Education Advanced Level (A Level).
This qualification consists of 2 parts: The Advanced Subsidary (AS) level and Advanced Level. In the first year, students study up to 4 or 5 AS levels and receive a qualification for each one passed. In the second year, the student normally carries 3 of these subjects in greater depth and achieve the A level. Both the AS and A level are assessed by modules rather than a single examination at the end of the course. These are generally seen as academic, not vocational studies.

ii. GCE Advanced Level in Applied Subjects (or vocational A levels).
These are based on the same structure as the academic AS and A levels but have a more vocational application and teaching. Subjects include Health and Social Care, Engineering, Applied Business.

iii. Advanced Extension Award (AEA)
In 2002, the Advanced Extension Awards (AEAs) were introduced to promote academic excellence to the top 10% A level students and give them further in depth studies in their areas of interest. This was to help both the student at the next level of study and universities select the most suitable applicants.

iv. International Baccalaureate (IB).
The IB is an international qualification that is recognised by the UK government

as being equivalent to the A Level examinations and studies traditionally academic subjects with a specialism of 3 or 4 subjects in the final year.

v. Cambridge Pre – U.

A recently added qualification that can be achieved is the Cambridge Pre-U. Studied at the same level as the AS and A levels, the format is closer to the model of teaching and learning taken at the UK University level. The motivation for this style of the award was to give students a firm foundation of the skills needed for University study

vi. MAs (Modern Apprenticeships).

Modern Apprentices are recruited directly by employers or training providers. They are generally 16 or 17 years old and they are employed to be working employees as well as apprentices. They are given a mix of general, vocational and occupationally specific training. They gain formal qualifications along with training.

Further Education Examining Bodies

The examining bodies for Further Education are the same as the compulsory education bodies; Oxford Cambridge and RSA examinations, Assessment and Qualification Alliance and Education and Excellence.

Higher Education

Admission Requirements

Entry into higher education institutions is determined at the institution level and is normally based on the student's previous education both in grades and subjects. For the majority of UK students entering University the decision will be made on their A Level results though other FE qualifications are considered. The administrative process for admission is handled by UCAS (University and College Admission Service).

Institutions

There are two types of higher education institutions, 'Recognised' and 'Listed'. 'Recognised' institutions have their own degree awarding powers and develop their own courses. They set the terms and conditions under which a student can receive an award and appoint their own staff. The standards are maintained through inspection and external examination via the government body, the Quality Assurance Agency (QAA). 'Listed' institutions do not have degree awarding power but can provide teaching and courses that will lead to an award from a Recognised institution.

The Open University

The UK Open University (OU) was established in the 1960's. Its principal motivation was to educate people unable to attend standard institutions. More than 250,000 students are currently registered with the OU with the vast majority studying part time by distance education. The OU offers 'supported open learning' from foundation level (there are no specified entry requirements but a student's starting point will be determined by their previous education).

Qualification Structure / National Curriculum / Qualifications

Higher education is structured by the Framework for Higher Education Qualifications. Different degrees and qualifications at higher education level can be broken down into levels as below:

FHEQ Level	Examples of qualifications
Level 4	certificates of higher education higher national certificates
Level 5	diplomas of higher education Foundation Degrees higher national certificates
Level 6	bachelors degrees bachelors degrees with honours graduate certificates and diplomas professional graduate certificate in education

Level 7	masters degrees
	integrated masters degrees
	postgraduate certificates
	postgraduate diplomas
Level 8	doctoral degrees

This can then be used for the basis of valuing a qualification across different institutions, professions and countries. The qualifications are:

i. Certificate of Higher Education (FHEQ level 4).
A Certificate of Higher Education is normally awarded to a student that exits after one year or a high education course.

ii. Foundation Degrees (FHEQ level 5).
These are full time courses designed with employers to fill skill gaps. They are both academic and practical with courses such as Community and Social Studies, Retail or Veterinary nursing. Applicants don't need formal entry requirements and most institutions offering foundation degrees will look at work experience as well as academic and vocational awards.

iii. Diploma of Higher Education (FHEQ level 5).
A Diploma of Higher Education (DipHE) can be awarded after two years on a higher education course.

iv. Bachelor (Honours) Degree (FHEQ level 6).
This is the most popular of the qualification's award at the higher education level. A Bachelor's is normally awarded after three years of study and have titles such as a Bachelor of Science (BSc) or a Bachelor of Arts (BA). Many institutions also award with Honours (BA Hons). The degree is limited to one or two specialist areas.

Postgraduate Qualifications
The following are offered at the Postgraduate level:

i.   Postgraduate Certificate (FHEQ level 7).

The postgraduate certificate gives a student the chance to specialise further in their bachelor degree field. This is the smallest postgraduate step beyond bachelors.

ii.   Postgraduate Diploma (FHEQ level 7).

A postgraduate diploma is often half or more of a Master's degree course. They provide further specialisation in a chosen field and are usually examined and assessed through coursework.

iii.   Master's Degree (FHEQ level 7).

The Master's degree is the next full degree award after bachelors. They can be research or taught (or both), usually contain a dissertation and take at least a year.

iv.   Doctorates (FHEQ level 8).

Doctorates are awarded to students who produce original research in the forefront of their discipline. The student will have collected and interpreted knowledge in their field. Most Doctorates take 3 – 4 years to complete. The titles collected include PhD / DPhil (Doctor of Philosophy), (Doctor of Education).

Adult and Continuing Education

The provision of continuing education in the UK falls under the authority of two main bodies, the state-run Learning and Skills Council (LSC) and the voluntary body, the Workers' Educational Association (WEA).

The WEA aims to help adults continue with their education through all different forms, lengths and qualifications though most are part time. There are 650 local WEA branches and these are deemed institutes and as such, receive funding from the LSC.

In 2000, legislation was introduced. It was called the 'Learning and Skills Act'. This meant that all education between compulsory education and higher education came

under the auspices of the LSC. The act distinguishes between people aged 16 to 19 years old and those who are older. Both these groups could expect appropriate education provision and training. This sector is also tasked with providing academic and vocation training for 16 – 19 year old, vocational education and training for adults seeking employment, workforce developments for employers, second chance general education for adults and the opportunity to learn for leisure and personal development.

Further provision for continuing education is provided through the adult and community learning (ACL). This is a term describing a large range of learning accessible to adults, such as languages and ICT and don't necessarily lead to a formal qualification. ACL courses are selected and funded by Local Authorities.

The group 'Learn Direct' also offer a wide range of courses and qualifications in subject such as Maths, English, IT. They aim to help people return to work or find work with the basic level of learning that employers require.

Adult Education Institutions

Further education institutes are used for the traditional 16 – 19 age range but also offer their facilities to vocational and adult education courses. These are called Centres of Vocational Excellence (CoVE). They deliver and develop high level vocational subjects as well as developing skills and working with employers to fill skills gaps. There are currently several hundred CoVE's operating in the UK.

LearnDirect and other adult education providers are often 'distance learning' programmes and require no formal classroom environment.

Professional Qualifications

Professional associations

Professional associations in the UK can be broken into two main types. There are those that examine practitioners in a particular specialised subject and those that accept others on qualifications and experiences. Most professional associations have multiple levels and a member can achieve stages through further exams or practical

experiences. When a candidate or member reaches a certain level within the association, they can often use a specified designation in their title (for example, members of the Institute of Chartered accountants can add A.C.A. to the end of their title) from the institution and use the institution to validate themselves to other parties.

Continual Professional Development

Most associations are keen on continual professional development (CPD) to help members keep up with the latest practises and legislations and to help organise events to aid this. Some academic qualifications can also be used as CPD if they are accredited by the professional body. CPD can range from a lunchtime seminar to MSc or PhD qualifications. Most associations would expect their members to do a minimum amount of CPD per year in order to maintain their membership and the standard of membership.

Chapter 2 | # Concepts of lifelong learning and e-learning

Concept of Lifelong Learning

The concept of lifelong learning can be explained as all learning activity undertaken throughout life, whether formal or informal. The basic concept is very closely linked to 'continuous education' or 'continuous professional development'. Within the United Kingdom, the main regional governments all see the importance of lifelong learning and have their own definition and view.

In 2000, the Scottish Executive (a central government body) stated that

> *"Lifelong learning covers the whole range of learning. That includes formal*

and informal learning and workplace learning. It also includes the skills, knowledge, attitudes and behaviours that people acquire in their day-to-day experiences."

(http://www.scotland.gov.uk/Publications/2003/02/16309/17778, 2011)

In 2010, the Welsh Assembly stated

""Learning for Life" was fundamental to the achievement of social justice, ensuring economic productivity and meeting the challenges of new technology, and the desire to ensure the best possible environment to encourage learning at all stages of people's lives."

(http://www.bitc.org.uk/wales/what_we_do/environment/policy_funding/consultations.html)

The European Commission, through the Lifelong Learning Programme (LLP) states that Lifelong learning is learning opportunities from childhood to old age in every single life situation. This is further broken down to state:

"all learning activity undertaken throughout and competence, within a personal, civic, social and/or employment-related perspective life, with the aim of improving knowledge, skills"

(http://www.qualityresearchinternational.com/glossary/lifelonglearning.htm)

The United Kingdom Department for Education stated in 2000 that lifelong learning is

"an important part of government policy. Informal learning is seen as one way to remove barriers and widen participation in learning"

(https://www.education.gov.uk/publications/standard/publicationDetail/Page1/RB191)

According to the Department of Education, Science and Training in Australia, there are 4 main characteristics to lifelong learning (http://www.dest.gov.au/Search.htm?query=lifelong%20learning)

i.   The main concept of lifelong learning is that it should cover both the formal and informal education and training. The formal education is the standard government structure through compulsory and traditional education routes such as degrees in universities. However, informal learning is a constant process where an individual learns skills and knowledge from daily life, both at home and in the workplace, using any means such as media.

ii. Another very central theme to lifelong learning is that it is largely self-motivated. Individuals must take responsibility for their own learning and have the confidence to learn and engage with their education. They must also have an interest in the area. This can be in formal arena such as engaging in school work and lessons, as well as the self motivation and learning outside the traditional channels.

iii. Linking in with the self motivation that is one of the keys to lifelong learning is the question of funding. Lifelong learners need to be able to fund themselves with minimal support from outside agencies such as government thus taking responsibility for their own education or training throughout life.

iv. The last key characteristic of lifelong learning is that it should have the opportunity for Universal participation. Universal participation covers both formal and informal learning needs for all reasons; social, economic and personal.

For the purposes of this paper, lifelong learning covers from pre-school education, through all traditional and compulsory routes, to adult education for basic skills and continuous professional development.

Benefits of lifelong learning

Government policy and academic contributors want to promote lifelong learning to as many people as possible under the terms and ideas expressed above. It is also worth looking at the individual benefits that can arise from lifelong learning. Just as there are social and economic reasons why a state would like to promote lifelong

learning, there are the same benefits for an individual. The economic long term benefits include career changes and career development. In the case of continuous professional development, it is maintaining and updating your knowledge and skills to an industry level. There are social advances that can be made with more skills and greater knowledge. Nancy Nordstrom, the US author of '*Learning Later, Living Greater: The Secret for Making the Most of Your After-50 Years*' also describes lifelong learning as:

> *"Lifelong learning is the continued educational experience that utilizes non-credit academic courses, educational travel, and community service and volunteerism to fully engage the brain, heighten physical activity, and maintain healthy social relationships".*

Her work, though aimed at the benefits of lifelong learning for the over 50's or retired people, also demonstrates some of the most important characteristics for all people engaged in learning. These are:

i.   Lifelong learning develops natural skills
v.   Lifelong learning opens the mind
vi. Lifelong learning creates curiosity
vii. Lifelong learning increases our wisdom
viii. Lifelong learning makes the world a more enjoyable place
ix. Lifelong learning helps us adapt
x.   Lifelong learning helps us find meaning around us
xi. Lifelong learning makes us an active contributor to society
xii. Lifelong learning gives us access to people and places outside our usual circle
xiii. Lifelong learning creates a sense of satisfaction and fulfilment

Concept of E-Learning

With further and higher education, the body responsible for the combination of traditional teaching methods and introduction of a comprehensive, cohesive technological side are the Joint Information Systems Committee (JISC). JISC defines

e-learning as:

> 'learning facilitated and supported through the use of information and communications technology (ICT).' (http://www.jisc.ac.uk/)

Their e-learning and pedagogy programmes aim to ensure that e-Learning, as practised in UK HE and FE, should be 'pedagogically sound, learner-focused and accessible.' The general background for this programme is the ongoing need to support practitioners in realising this aim through e-learning.

The main government organisation delivering lifelong learning to the UK, LearnDirect, describes e-learning as

> *'E-learning simply means that the courses will be accessible on your computer if you have an internet connection. With our flexible online courses it's easy to fit learning into your life. You can access your courses at any time that is convenient for you and do as little or as much as you like.'* (Direct email – see appendix 1).

The government website, Directgov describes e-learning as

> '*e-learning makes use of information and communications technology to provide innovative ways to learn. Distance learning covers learning remotely on courses such as home study or 'self-study' courses, which can be combined with e-learning.*

> *e-learning may appeal to you if you:*

> - *want to learn when and where you want, at your own pace*
> - *have commitments which make it harder for you to attend a regular course*
> - *have mobility or health problems that make travel or attendance difficult*
> - *live a long way from a training provider*
> - *work irregular hours or shifts*

(http://www.direct.gov.uk/en/EducationAndLearning/AdultLearning/LearningOutside TheClassroom/DG_4016860)

Government policy, finance/funding, regulation of e-learning for lifelong learning

This chapter can be broken into two major sections. The first is e-learning supporting traditional methods of academic learning. Each Further Education college and University has its own e-learning section and areas of growth and development. The main collective area is the Joint Information Systems Committee (JISC). JISC is a joint organization set up by the Higher Education Funding bodies of England, Wales, Scotland and Northern Ireland to fund information technology investment in UK Universities. These include lifelong learning aspirations of widening participation and individual study plans. This is the more theoretical and the academic development body of e-learning.

The other main area is the use of e-learning to promote and aid education outside the traditional areas. This is mainly the adult education section and is the 'learner facing' practical area. There are 3 main groups in this area:

i.   Learn Direct
ii. Open University
iii. National Extension University

JISC

JISC instigates UK colleges and universities in the innovative use of technologies, helping to maintain the UK's position as a global leader in education. Their ambition is to provide world-class leadership in the innovative use of Information and Communications Technology to support education, research and institutional effectiveness. To achieve this objective, they have 10 main active programmes (two more programmes have now been archived), where institutes can apply for funding for a project. The live programmes are:

1) Course management: Specification, validation & description strand

JISC has supported projects trying to 'explore, describe and pilot new approaches to aspects of the course management life cycle' from the initial specification to delivery. This covers the quality assurance process and delivery of a course that takes it from the inception through until students are studying is often a convoluted and diffused between individuals and departments. This means that often there is no one central point of reference, resulting in poor or misinformation becoming more likely – sometimes with several versions travelling through the validation process at any one time. This has implications for academics, administrative staff as well as current and potential students.

Example: University of Hertfordshire . Supporting the MOVE lifelong learning network by automating the input of course information from a sample of partner colleges using XCRI (a self assessment framework), through a system based on ioNodes (a storage enabled multi port encoder).

2) Cross-Institutional Use of e-Learning to Support Lifelong Learners (phase 1)

Between September 2006 and until 31 March 2009, JISC funded a number of projects 'implement and evaluate the cross-institutional use of e-learning to support lifelong learning, including the provision of personalised learning experiences and flexible delivery to support progression, widening participation and work-based learning'.

Example: Bradford University piloted a range of social software to explore learner uptake of these compared to e-portfolios for use in progression and widening participation.

3) Cross-Institutional Use of e-Learning to Support Lifelong Learners (phase 2)

Similar, JISC funded an 18 month set of projects with the remit as above, also to conclude in March 2009.

Example: University of Bolton developed and piloted the use of browser plug-in tools to record online social interactions for e-Learning Capital programme.

4) Vision statement

Again JISC focuses on lifelong learning and helps people progress through to higher

education and this programme looks at the changes that are needed within institutions (technical, administrative and cultural) to meet the needs of individual learners and personalising their experience through technology. The programme will also look at the relationship with the aid of employers and how technology can aid the relationship between employer, employee (or learner) and institution.

5) e-Learning Frameworks and Tools programme

Maximum-likelihood Estimations (MLE) are a method for estimating the parameters of a statistical model and JISC is focusing on the MLE idea and how it can help create a coherent methodology for effective e-learning in individual institutions and between different institutions. This programme focuses on four themes

 i.   e-learning and pedagogy
 ii. technical frameworks and tools for e-learning
 iii. innovation
 iv. Distributed e-learning

JISC hopes to help create technical frameworks for a common e-learning design basis.

6) e-Learning / Pedagogy programme

JISC has split this programme and e-Learning and Pedagogy activities into two main concepts:

 i.   Designing for Learning

Designing for Learning wants to help institutions focus on achieving learning outcomes that may include e-learning tools. This programme aims to help decide if these tools are the most effective.

 ii. Understanding my Learning

Understanding my Learning has a learners perspective on e-learning, including perception, participation, value and meanings. This will be of benefit for the student support using e-learning methodologies.

7) HE in FE projects

Using existing technology and focusing centrally on the learner experience, JISC has helped implement, and pilot technologies for learners in higher education in the further education context.

8) Lifelong learning and workforce development

This programme supports projects looking at the introduction of appropriate technologies to meet the needs of learners in the workplace (and their employers) wanting to achieve higher education levels. The basis of this programme is linked to the Lord Leitch Review of Skills and the government policy of 40% of the UK population having achieved this level of education by 2020. Currently 75% of the 2020 workforce is already working so a significant proportion of the population will need to return to HE – without leaving the workplace – and currently universities and institutions do not have the facilities or infrastructure to enable this group.

9) Strategic Content Alliance

'The Strategic Content Alliance is committed to improving the UK's digital content holdings, ensuring a better return on public investment through co-ordinating resources and expertise so that good practice is advanced among those serving the British people' (http://www.jisc.ac.uk/contentalliance, 2011).

Learn Direct and the University for Industry Ltd

The University for Industry is a government funded organisation founded in 1998 (http://www.ufi.com/home2/). It owns the learndirect brand (www. http://learndirect. co.uk/) - providing learndirect courses as well as learndirect advice and UK Online centres. Their aim is to help educate adults without literacy and numeracy skills and those without the government target for compulsory education, 5 GCSE's grade A – C. The concept is to give these learners essential skills for the work place and it is delivered through the innovative use of technologies, both established and developed.

The organisation works in partnership and receives funding from with the Learning

and Skills Council with their remit to provide learning.

Learndirect is the branding of the Ufi that faces outwards to the public. Learndirect describes itself as:

> *'learndirect has pioneered the large scale delivery of learning - supported by people but enabled by technology. We have shown since 2000 that learning with learndirect transforms people's lives and helps businesses thrive. Whether it is to get a new job, a promotion or to gain the confidence needed to do more with their lives - helping people is at the very heart of what learndirect is about.'* (http://www.ufi.com/home2/)

Learndirect currently has more than 800 online learning centres in England and Wales and over 2 million people have taken some study with them. The completion rate is approximately 65% (internationally, this is a better than average completion rate for online learning). Learndirect has received criticism for high levels of funding, little business involvement for comparatively few learners (House of Commons Committee of Public Accounts, 2005-2006) and while the number or learners has grown considerably, the organisation is now under threat from budget cuts. This means that most the network of centres will be cut by Ufi ltd and alternate arrangements for centres will need to be found, with some funding now coming from the Skills Funding Agency.

According to The Independent (Newspaper), Ufi Ltd will be abolished by the British Prime Minister David Cameron's Conservative government as they seek to cut budgets nationally (http://www.independent.co.uk/news/uk/politics/one-by-one- the-quangos-are-abolished-but-at-what-cost-2036175.html).

Open University

Established in 1969 by Royal charter, the Open University (OU) is the largest University in Europe (http://www.open.ac.uk/). More than two million students have studied courses with the OU, with approximately 250,000 currently enrolled. The OU traditionally has no entry qualifications with courses that range from short courses for those studying for the first time, through to postgraduate qualifications. The con-

cept is to take someone from where they currently are, through to the highest level of education a step at a time. You join the ladder of the qualification based on your previous study and knowledge.

As well as providing lifelong education across a wide spectrum of courses, the OU also publishes 'Journal of Widening Participation and Lifelong Learning' (http:// www8.open.ac.uk/about/wideningparticipation/research). The journal looks at the issues of access, social exclusion and lifelong learning both nationally and internationally.

National Extension College

On a much smaller scale than the Open University, the National Extension College (NEC) was the original pilot for the OU (http://www.nec.ac.uk/index-lsn.html). The NEC is a not for profit organization, founded in 1963 which aims to help people of all ages fit learning into their lives. Their philosophy is 'there should be more than one way to get a good education'. They achieve this through a combination of distance, blended and e-learning.

The NEC supports over 20,000 learners a year on over 100 home study courses. The website has a range of features to help you study effectively. As a learner you can get online support and access to the NEC student group - a free online group, as well as other specific course groups.

The NEC also offers their facilities and open learning resources to schools, Further Education Colleges, Local Authorities and NHS Trusts to aid their staff on continuing professional development. They offer the same services to private enterprises and help them organise training programmes.

Status and Characteristics of e-learning for lifelong learning

Status of Education in the UK – Numbers

Education has become a topic of controversy in the last few years within the UK. As the public deficit has grown, education is seen as one of the areas where cut backs can be made. The government spending has been increasing over the last 6 years but they want to reduce this spend as the table below shows:

Overall Government Spend on Education in billions

Year	Central Government	Local Government	Total
2007	£26.00	47.00	73.00
2008	28.50	49.70	78.20
2209	29.80	53.30	83.10
2010	33.40	55.10	88.60
2011	33.20	57.40	90.60
2012	34.20	59.10	93.30
(predicted)2013	28.60	60.90	89.50

(http://www.ukpublicspending.co.uk/downchart_ukgs.php?chart=20-total&state=UK&local=, 2011)

The central government has devolved a lot of budgetary control to local authorities, like with many services, so that the resources can be used in a more direct response manner. Overall the spending on education has been on the increase, reaching just over 6% of the national budget in 2008/9.

Percentages

The numbers being educated in the UK are large and though numbers are the decrease (post war baby boom high is now in decline). In the compulsory education sector there are 9,691,000 pupils currently studying. Nursery education (which is pre-compulsory age) is the only category with significant growth since the 1970's. Though the names of secondary education institutions have changed, the overall number of pupils has actually decreased.

Students in further and higher education: by type of course and sex								Thousands
	Men				Women			
	1970/71	1980/81	1990/91	2007/08	1970/71	1980/81	1990/91	2007/08
Further education								
Full-time	116	154	219	520	95	196	261	534
Part-time	891	697	768	984	630	95	986	1,432
All further education	1,007	851	986	1,503	725	820	1,247	1,966
Higher education								
Undergraduate								
Full-time	241	277	345	574	173	196	319	717
Part-time	127	176	148	255	19	71	106	422
Postgraduate								
Full-time	33	41	50	124	10	21	34	125
Part-time	15	32	46	109	3	13	33	150
All further education	416	526	588	1,063	205	301	491	1,414

The area of education that has seen significant growth in the UK is the further and higher education sector. This has grown far larger than expectations, particularly amongst women with numbers in higher education increasing by over 700%. The overall chart shows that education beyond the compulsory level has become increasingly popular and important.

Students in further and higher education: by type of course and sex								Thousands
	Men				Women			
	1970/71	1980/81	1990/91	2007/08	1970/71	1980/81	1990/91	2007/08
Further education								
Full-time	116	154	219	520	95	196	261	534
Part-time	891	697	768	984	630	95	986	1,432
All further education	1,007	851	986	1,503	725	820	1,247	1,966
Higher education								
Undergraduate								
Full-time	241	277	345	574	173	196	319	717
Part-time	127	176	148	255	19	71	106	422
Postgraduate								
Full-time	33	41	50	124	10	21	34	125
Part-time	15	32	46	109	3	13	33	150
All further education	416	526	588	1,063	205	301	491	1,414

(http://www.thedataservice.org.uk/NR/rdonlyres/C8A2149A-3CB3-4F19-B661-67A4F8571E4C/0/SFR_
Commentary_June11.pdf, 2011)

The number of part time students demonstrates that education can also be advanced even if the student has not worked continuously through the traditional levels of education. More than 40% (2.9 Million) of people between 16 and 65 in the UK are currently studying towards a qualification. 1.2 Million of those are aged 40 or older. Of the number studying towards a degree qualification, 42% were over 25 and a total of 14% were over 40. This evidently shows that continuous education or lifelong learning is active in through all ages of the working age populous of the UK.

Another area to focus on is the number of people studying whilst they are working. Information from the 'Labour Force Survey' shows that more people are studying

for a degree (2.1 million) whilst working either full or part time (50%) compared with the traditional full time student (42%). This difference is even more significant at the other levels of qualifications offered.

People working towards a qualification: by economic activity status, 2009					
United Kingdom					Percentages
	Degree or equivalent and higher	Higher equcation[3]	A levelor equivalent	GCSE or equivalent	Other qualifications	All qualifications
In employment						
Full-time	26	45	23	22	57	34
Part-time	24	23	30	20	17	23
All in employment	50	67	53	42	74	57
Unemployed	5	5	8	8	8	7
Inactive student	42	24	37	46	10	32
Other inactive	3	3	2	4	8	4
	2.1	0.5	1.5	1.0	1.7	6.7

(http://www.thedataservice.org.uk/NR/rdonlyres/C8A2149A-3CB3-4F19-B661-67A4F8571E4C/0/SFR_
Commentary_June11.pdf, 2011)

Politics

The UK changed ruling party in May 2010. The politics moved from the Labour party to the Conservative party and with it has come massive change for the entire education sector. Under Labour, Lord Browne was asked to review Higher Education and student funding. He delivered the report in October 2010 to the Conservative party.

The Browne report recommended that the previously capped fees and most of the government subsidies for Universities be removed. The institution would be able to set its own fees. To cover these fees, the government would provide upfront loans, payable after graduation. This system should also extend to part time students who had previously paid all tuition fees in advance.

The Conservative government has agreed to many of these changes with the exception

that they have capped annual undergraduate tuition fees at a maximum of £9,000 per year (The previous maximum was £3,225. This increase has tripled the annual tuition cost for an undergraduate degree). This radical change to the way Universities have been managed prompted mass street protests in October and November 2010 with tens of thousands taking to the streets of London and other major cities.

David Willetts, the Universities Minister has urged that students look to alternate methods for education if they are unable or unwilling to fund their education through the traditional on campus stage by stage education. As mentioned above, the UK has already moved to a system where more people are taking education as well as working later in their life. The Universities Minister also asked that Universities need-ed to find cheaper and more flexible methods for teaching. He asked them to 'secure new funding streams' and 'innovate'. One of the methodologies he advocated was to study for a degree at any university but to attend lectures and classes in local colleges, rather than leave home. Mr Willetts used the model that the University of London currently employs (with 50,000 students worldwide and over 6,000 in the UK). This delivery method is called the University of London International Programmes and is entirely self funding without any government support.

An alternate model for this method of education is the Open University but the Open University does receive government funding and has seen that funding taken from £130 million to less than £40 million in 2012. This means the fees will need to rise dramatically and will hugely affect the 'open' status of the Open University.

Another of the major changes for lifelong learning, that has been introduced since the new government, is that the University for Industry and their public facing body – Learndirect – are now an independent company and not receiving specific ring marked government funded. The government has relinquished any control that it had over the board and strategy and now Ufi applies for government funding in the same manner as other colleges and private providers. This means that Learndirect now has fewer centres and offers fewer courses which is a negative impact on student

access to lifelong learning.

Technology

Technology in the 21st century is moving at a pace that could not have been predicted 20 years ago. Together with global population expansion, education in the UK faces challenges it could not have predicted in a global climate that is unsteady. The UK has always been considered a global leader for education and innovation but this is a changing situation. For example, 5% of the population in China with the highest IQ's number greater than the total population of the UK. One of the key questions is – is the UK changing fast enough? Currently in the UK, 98% of 12 year olds understand the need for education and want 'to do well at school' but only 38% look forward to going to school. A simple look at lifestyles can reveal one of the problems – a gap between the technology available and the methodology still used to teach. 9 out of 10 teenagers have a home computer, a mobile phone and a games console but most lessons are still taught using white boards. It is estimated that over 70% of teachers never play computer games but they are trying to teach to generations that have been surrounded by technology.

Universities have managed to embrace technology better but are now suffering funding cuts. Each University typically now as a unit dedicated to innovation through technology for delivery of course materials and support in numerous ways. These can include online timetables, lectures and podcasts. Within the School of Oriental and African Studies, there is an e-learning team within the Academic Directorate. They look after the online learning environment, Blackboard. The University of London has a centralized development unit called the Centre for Distance Education. Their mission includes

'to foster new innovations, both pedagogic and technological, within distance education, and evaluate their reception by students of the University and to facilitate dissemination of best practice within the community of London Colleges.'

Universities understand that to remain competitive throughout the world they need to advance and embrace technology both in teaching methods and through student support.

Chapter 5 — Typical e-learning for lifelong learning (Illustration of typical cases)

As described in chapter 1, the UK has a very extensive education system – both compulsory and continuing. This chapter will concentrate on continuing education outside of the traditional education route. This will look to 3 different educational levels and different areas that technology is affecting such as course choice and information, course content and integration of the learner. The three levels are:

i.   Basic skills
ii. Post compulsory
iii. Postgraduate

Return to learning - Basic Adult Education - General Examples

LearnDirect

LearnDirect aims is to help educate adults without literacy and numeracy skills. Their aim and structure has been discussed in a previous chapter. Below are two case studies that demonstrates how LearnDirect can take someone with limited skills and no computer literacy and converted their lives using e-learning. The cases come from two different angles, ill health and a return from family life, but end up using the same methodology to return to work and learn new skills. While the case studies

are not in depth or showing the actual technology, the level of learning that they demonstrate shows that e-learning does not need to be cutting edge technology to make the difference to the individual learning. Both examples have come directly from Learndirect.

Dawn Stoddard, 46, from Adlington in Chorley, has fought through various difficult circumstances to get herself back into work after 12 years of unemployment. Having suffered from a range of health issues herself, Dawn then nursed her terminally ill father. She went to **learndirect** and has not looked back since. She now works as a tutor/assessor for mental health sufferers and attributes her success to the qualifications she secured with **learndirect**.

Having left school, Dawn went on to study at college, but she then began to suffer a mixture of health problems. Then, when her father was diagnosed with cancer, Dawn didn't hesitate to look after him in her home, which she shares with her husband, Ian, and 15-year-old son Christian.

When her father passed away, Dawn was determined to get back into work, but having not been in employment for 12 years. She applied for a range of jobs but had no success. Her local Jobcentre Plus then suggested that taking some further qualifications could help, so she went to her local **learndirect** centre to see what was available.

Dawn said: "I went to **learndirect** as I was computer illiterate, which I felt was holding me back from getting a job. When I walked into the centre I immediately felt at ease. There was a great atmosphere and the tutors were very understanding of the other commitments I had outside of learning."

Her **learndirect** tutors suggested that Dawn focus on updating her maths, English and IT skills, so she began working towards her levels 1 and 2 maths and English qualifications.

"I found the learning challenging but with **learndirect** you do it step-by-step so that helped a lot. It's also a very flexible which allows you to do your learning online at home, which I found much easier than when I'd been

studying at college. The tutors were on hand whenever you had any questions, and I often emailed them with queries I had and they'd be happy to help."

Whilst doing her IT qualifications Dawn applied for a job as a community support worker for high-end mental health sufferers. She was successful and returned to the workplace to embark on a new career. She has since been promoted and now works as a tutor/assessor.
(Direct Email from LearnDirect. See Appendix 2)

Amanda Cowan's life has changed dramatically over the last few months. She has gone from being a single mum relying on benefits to securing a job as a learning centre assistant. Up until last year, Amanda had been a stay-at-home mum. After 16 years of looking after her kids, she wanted to set an example to them and decided to get a job. She was referred to **learndirect** through Jobcentre Plus.

"I left school as 15 because I was bullied and I really didn't enjoy it," said Amanda. "I did go onto college but I never gained the skills I needed for a job that would support me and a family. I decide to stay at home because as a single parent I wanted to make sure my kids were ok. It was important to me that I decided to make a change and support myself and them but I didn't have any real job experience and was really scared of using computers - it was typewriters in my day!"
"I found taking my first steps into the **learndirect** centre was daunting. However, I soon found that learning with **learndirect** was very different to the negative experience I'd had at school. I was still nervous about even switching on a computer. All the learning is online so it's really flexible and I could work at my own pace. Whenever I got stuck or needed something explaining there was always a frendly face to help answer your questions."
"I dedicated three days a week to getting my ECDL qualification. The relaxed atmosphere is great and it just brings you out of your shell. I found

working with databases and spreadsheets difficult but I persevered and the whole learning experience has really boosted my confidence."

In September 2009, Amanda also started an NVQ in Business and Web Design and began volunteering at the centre. When a permanent position arose as a learning care assistant, Amanda was successful in securing the position. Using her first-hand experience, Amanda is now able to help other learners who are in a similar situation to the one she was previously in.

"One of the great things about working at a **learndirect** centre is that I can continue to learn. I am studying now for my level 1 Diagnostics and will also be doing a maths qualification in the near future. Friends and family were surprised about me starting learning again in my 40s, but look at me now - I've got some qualifications under my belt, a new job and a life that I am proud of."

(Direct Email from LearnDirect. See Appendix 2)

Post compulsory education level - course selection

Open University

The Open University teaches mainly post compulsory level education (ie post GCSE's) through 'supported distance learning'. The Open University will help a student or potential student through each step to ensure that they are on the right programme. Below are a series of steps a student first takes to understand the important questions before they start to study:

Having completed this series of simple questions, the OU creates an automated individual plan for the student to select the right first course. Statistical evidence shows that the right initial course selection will have a large impact on the students progression and eventual success:

Hours per week - Choosing your f... ✕

Listen to this page | Accessibility | ⚬ Sign in | Contact us

The Open University | Study at the OU | About the OU | Research at the OU | Search the OU

Study at the OU | Study explained | What can I study? | How OU study works | Your OU study experience

Choosing your first Level 1 course

Time available for study

The time commitment required for OU courses varies.

ⓘ more...

How much time can you realistically put aside for study each week for your first OU course?

○ Fewer than 5 hours
◉ 5–7 hours
○ 8–12 hours
○ 13–16 hours

You have **4 questions** to complete.

« Previous page   Next page »

Time frame - Choosing your first ... ✕

Listen to this page | Accessibility | ⚬ Sign in | Contact us

The Open University | Study at the OU | About the OU | Research at the OU | Search the OU

Study at the OU | Study explained | What can I study? | How OU study works | Your OU study experience

Choosing your first Level 1 course

Course duration

Do bear in mind that the longer the period of time you can dedicate to study the more choice you'll have.

ⓘ more...

What time period can you commit to, for studying your first OU course?

○ Less than 2 months
○ Up to 3 months
○ Up to 5 months
◉ Up to 9 months

You have **3 questions** to complete.

« Previous page   Next page »

(http://www.open.ac.uk/study/choosinglevel1/, 2011)

(http://www.open.ac.uk/study/choosinglevel1/, 2011)

Individual Case Study

Student A used this method to start her studies. She had *completed the usual compulsory education up until the age of 16 but found she was under-qualified when she left her first career in the army. She wanted to return to education for a new vocation and personal development. Using the questionnaire above, she selected a diploma in Environmental Policy. After completing the diploma, she took a break to have her family, returning a few years later to complete the degree award. She now has a career as a Contaminated Land Officer and stated:*

> "I got promoted because of my degree," she says. "A promoted post came up which was two levels above me. I applied and got it. If I hadn't got my degree, I wouldn't have been considered for the post."

Student A worked full time through her studies as well as raising her family. (http://www3.open.ac.uk/near-you/scotland//p11.asp, 2011)

Individual Case Study 2

Student B was a police officer in his 40's when he was diagnosed with type 2 diabetes. When researching the condition, wanting to learn more about it, he found the OU short course programme 'Diabetes Care'. The entry into this course is still GCSE level or above but it is a more informal course offered primarily to people with Diabetes or people working with Diabetes. The information provided prior to applying for the course includes:

What you will study

The course presents the underlying biology of the condition and explores the differences and similarities of Type 1 and Type 2 diabetes. The study materials cover recommended treatment paths such as annual review and check-ups, types of medication, diet and exercise and managing hypos and hypers. The psychosocial aspects of having the condition are also considered – coping with diagnosis, family and professional life,

---

education, communication, driving and the law.

The course has one main text, a DVD-ROM, a CD-ROM and other printed supporting materials.

Chapter 1 begins with an introduction to diabetes care, and explains how it feels to have diabetes and to have to be aware of some of the health and safety issues involved.

Chapters 2-4 consider what diabetes mellitus is, and examine awareness of the care and medical management of this condition.

Chapters 5-7 look at risk factors and complications, how they can be monitored and screened for, and how to interpret the results.

Chapters 8-10 explore 'living with diabetes' − beliefs and myths about self and treatment, emotions, communication, challenges, driving, employment, relationships, pregnancy and lifestyle.

Throughout the course, the person is considered first, and not the condition.

Students who particularly wish to improve their study skills are strongly advised to read *The Sciences Good StudyGuide* (1997) by A. Northedge, J. Thomas, A. Lane and A. Peasgood. Further advice is available from the Learning with the OU website.

Study materials

What's included

A course book, study texts and other printed materials, DVD-ROM, CD-ROM, a website and online forum facilities.

Computing requirements

This course includes online computer activities − you can access these using a web browser that can play Flash and Shockwave.

You will need internet access and a computer. If you have purchased a new computer since 2005 it should meet your course computing requirements. Check our Technical Requirements section if your computer is older than this or is otherwise unusual.

> ## Teaching and assessment
>
> **Support from your tutor**
>
> You will have a tutor who will help you with the study material and mark and comment on your written work, and whom you can ask for advice and guidance. We are able to offer group tutorials that you are encouraged, but not obliged, to attend. Where your tutorials are held will depend on the distribution of students taking the course. Contact our Student Registration & Enquiry Service if you want to know more about study with The Open University before you register.
>
> Contact our Student Registration & Enquiry Service if you want to know more about study with The Open University before you register.
>
> **Assessment**
>
> The assessment details for this course can be found in the facts box above.
>
> You will be expected to submit your tutor-marked assignments (TMAs) online through the eTMA system unless there are some difficulties which prevent you from doing so. In these circumstances, you must negotiate with your tutor to get their agreement to submit your assignment on paper.
>
> The end-of-module assessment (EMA) must be submitted online.
>
> Assessment is an essential part of the teaching, so you are expected to complete it all. You will be given more detailed information when you begin the course.

(http://www3.open.ac.uk/study/undergraduate/course/sk120.htm, 2011)

Student B used this information to ensure he was learning what he wanted, in a manner suitable to him. While not medically trained he "wanted to do the course to make sure that my knowledge was the best it could be"

(http://www3.open.ac.uk/near-you/scotland//p11.asp, 2011)

Postgraduate Case Study 1: Online Enrolment and Induction
The Centre for Financial and Management Studies, University of London

The Centre for Financial and Management Studies offers post graduate distance learning courses to 2400 students in 160 different countries. CeFiMS has tried to make application to start process as paper free as possible. This is essential due to the geographical

distances between London and the student. The paper option would not be practical.

For the online enrolment form, the student completes minimal personal information as that has already been collected at the application stage. The enrolment form uses the students information to tailor the courses offered by programme, time of year and level of study.

The student is also taken through the payment section via an online secure shop. The online shop works as a 'shopping basket' rather than communicating directly with the enrolment form. The reason for using the store is for security. Previously students simply entered their details straight into the form and while the form is encrypted, the store is a much safer option. Throughout the enrolment and payment process, the student is constantly linked back to the description page of the course

on the website. This is to help make sure that they have selected the right course and that they are prepared as course selection is key to helping retain the students.
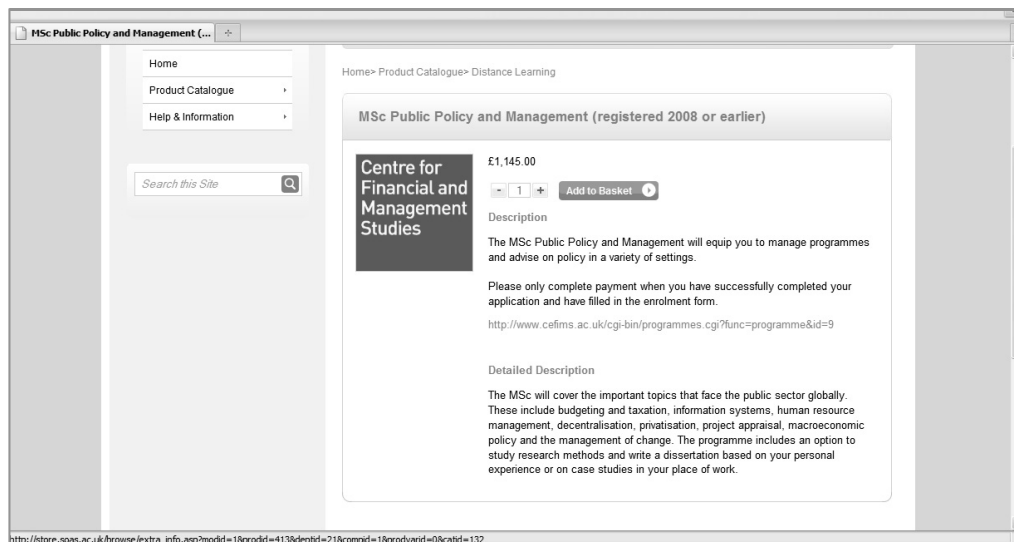
(http://store.soas.ac.uk/browse/product.asp?compid=1&modid=1&pcatid=154&catid=155, 2011)

Once the student has enrolled, they are directed to a 'Welcome Page'. This page provides information and is the equivalent on the on campus induction.
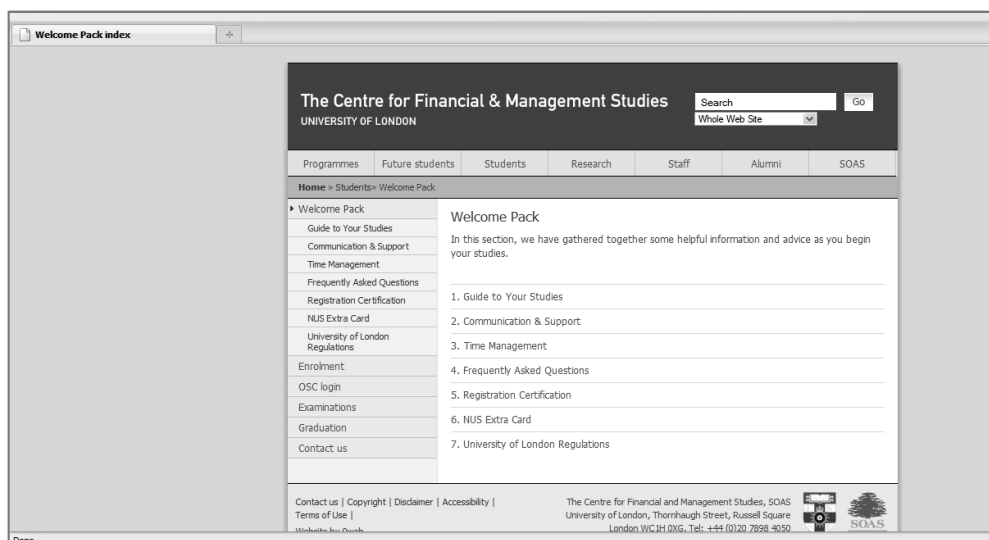
(http://www.cefims.ac.uk/Welcome_Pack/index.shtml, 2011)

The student can learn basic information about their studies through the 'Guide to Your Studies' which includes a podcast that introduces you and directs you to all the elements that you need to know to study and the elements that will help you succeed at your study. There is also a podcast to discuss assignments and examinations. The use of a podcast is to add the real human element that you would have if you were on campus.

In this distance learning environment, the tutor interaction is confined to the academic experience so the pastoral care is taken on by the administrative team. They take you through the different support systems that you can use (including downloadable elements such as the 'Friends and Family' letter. A letter designed to be given to people to read so they know what to expect while the student is studying. As the experience is very different to on campus studying, it is very important to make sure that the students know where to look for communication routes that replace the face to face element.
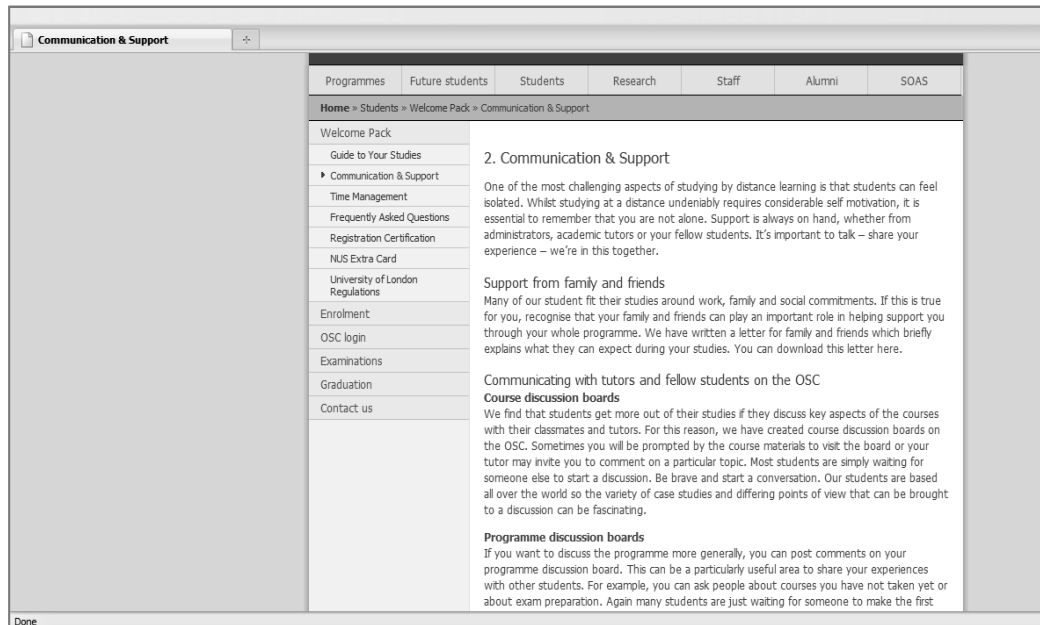
(http://www.cefims.ac.uk/Welcome_Pack/Communication_and_Support.shtml, 2011)

The functions of the time management page are looking to achieve the same aim. That is not to be the complete answer to a study methodology but to make the student question their techniques and to think about study style.. The welcome area also contains two very important sources of direct information to the student. The Frequently asked questions and the regulations.
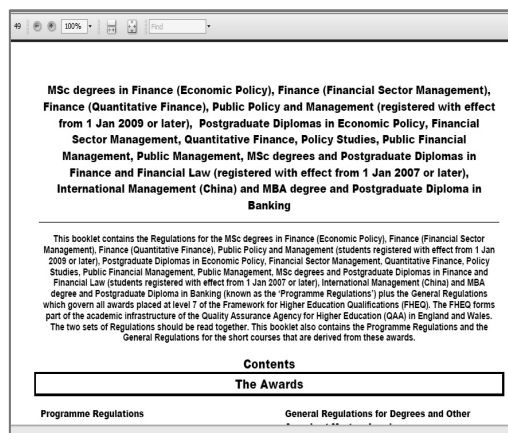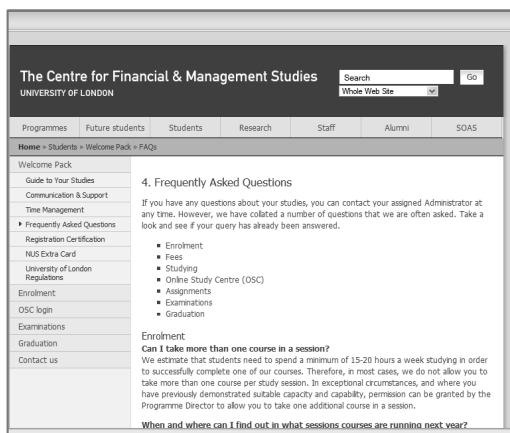
The Frequently Asked Questions provide basic information that is contained in the regulations but in a much more informal and student focussed manner. By posing the questions that the student may ask, they can manipulate the student to the right area whereas the Regulations provide the formal information. The Regulations are the legal constraints and rules that are the agreement between the University and the student but they can be very difficult to read – especially if the student does not have English as their first language.

The last two sections of the Welcome Pack page are to make the student feel like they are part of the community of students and that they 'belong'. These are the Registration Certificate and the student card.

The student card page gives information about the type of student card available – the National Union of Students. This is a national UK organisation that provides student cards to most of the UK Universities (the cards come with University specific branding too). The Registration Certificate is produced by the centre and shows that the student is registered with the Centre and for how long. As CeFiMS students are part time students and usually have full time employment, this is a popular item to show to employers for funding or support from the employer (such as study leave, use of company facilities)

Postgraduate Case Study 2: Study Materials and Area
The Centre for Development, Environment and Policy
The Centre for Development, Environment and Policy offer international postgraduate programmes by distance learning. With 1400 students studying around the world, their online learning centre (run through the platform 'Blackboard') is a vital tool in keeping students informed and in contact. This environment takes the place of the class room, the social areas and the tutor to student interaction.
The initial page shows your course selection, any news, important dates and acts as a portal to other key areas such as the library or Student cafe. It also offers direct support as well as frequently asked questions.
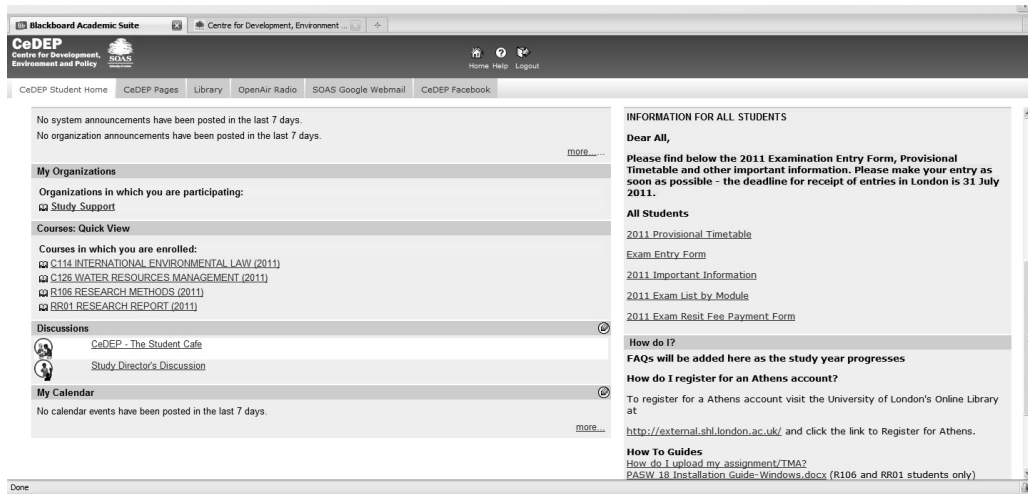
(From a secure website which requires a log in from
https://www.ble.ac.uk/webapps/portal/frameset.jsp?tab_id=_790_1, 2011)

Within the module page is all the information the student needs to successfully complete the module (with the exception of the text books). This includes the study materials such as the module notes, any articles referred to in the module notes, tutor marked assignment questions and an area to post them and specimen exam papers.
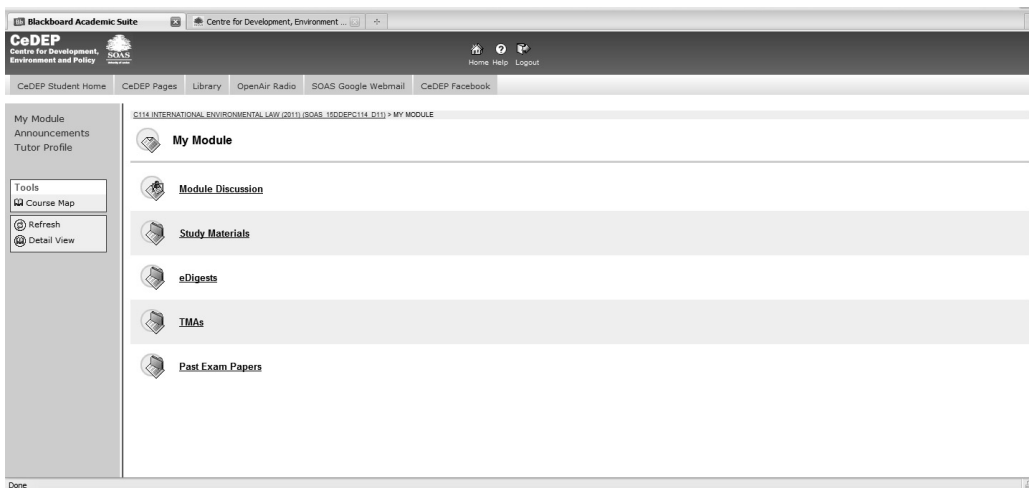
(From a secure website which requires a log in from
https://www.ble.ac.uk/webapps/portal/frameset.jsp?tab_id=_790_1, 2011)

The module discussion takes the place of the tutorial discussions for the traditional on campus student. Often tutor led, it focuses around topics raised in the module notes and draws on the experience of all the student from around the world. Giving the CeDEP students a very global perspective.
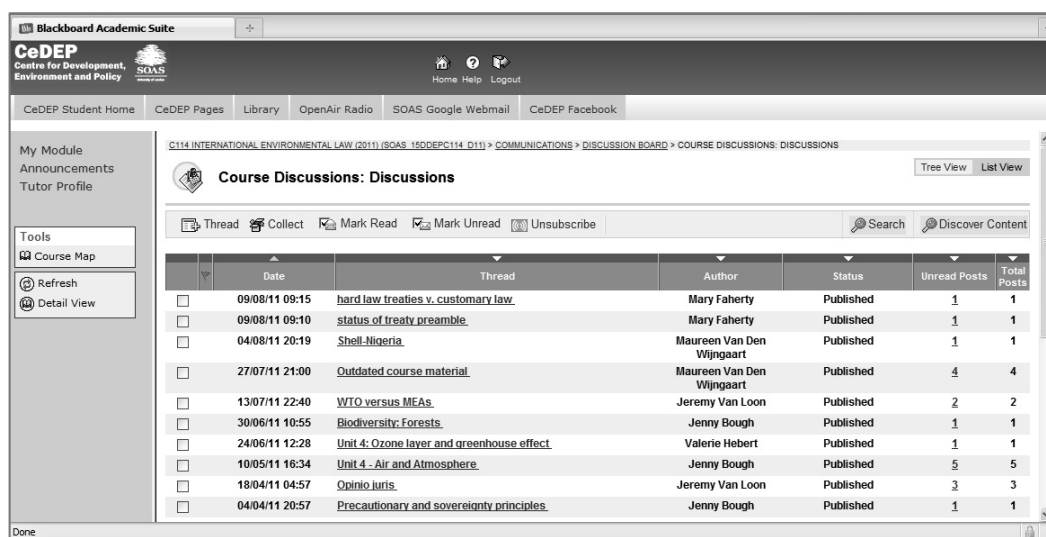
(From a secure website which requires a log in from
https://www.ble.ac.uk/webapps/portal/frameset.jsp?tab_id=_790_1, 2011)

Also within the course section, CeDEP use the assignment tool 'turnitin'. Turnitin is a tool for monitoring and assessing levels of plagiarism within a computer submitted assignment. One of the most innovative advantages of online assignment submission is the automated check of work taken from another source (Turnitin searches the internet for matches) and not properly referenced. Turnitin will give a detailed account of what websites have been used so plagiarism can be punished

The students also use the very large University of London online library and link to it through the OSC. The library is the provision for 19 colleges and over 150,000. This is a free resource for CeDEP students and helps give them availability to further reading and research without relying on their local resources and expensive mail ordering of books etc.
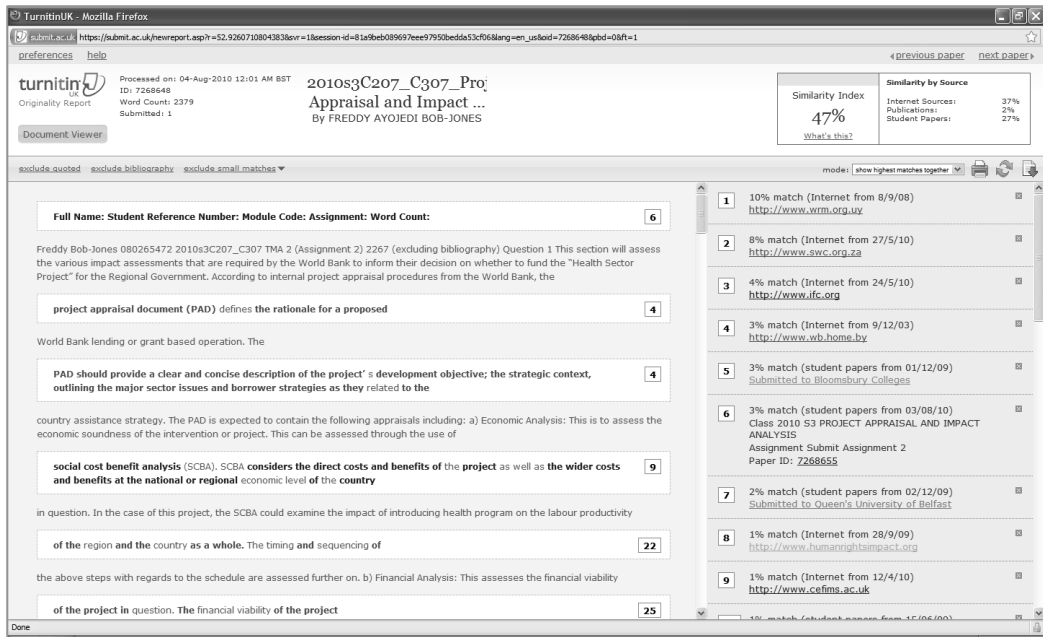
(From a secure website which requires a log in from
https://www.ble.ac.uk/webapps/portal/frameset.jsp?tab_id=_790_1, 2011)
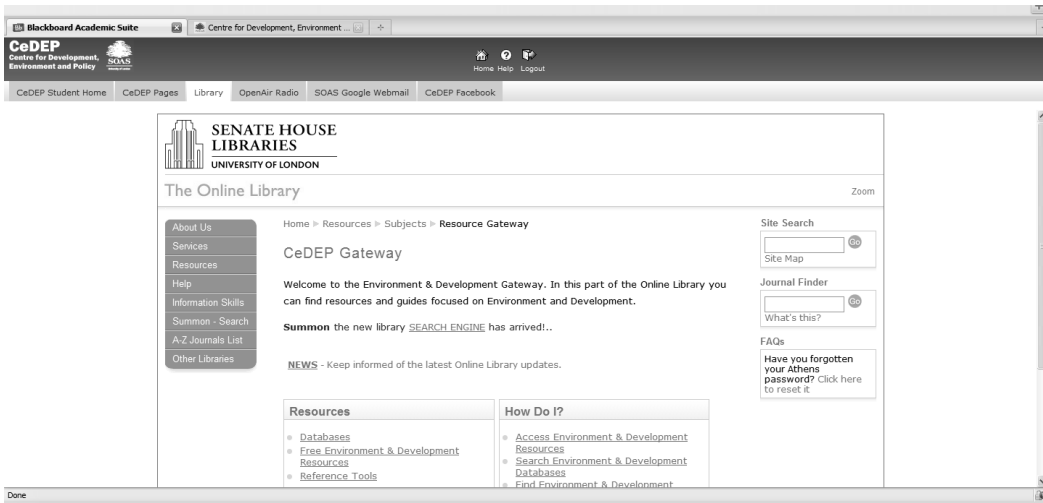
(https://www.ble.ac.uk/webapps/portal/frameset.jsp?tab_id=_450_1, 2011)

The social area within the OSC is called the Student Cafe. This is the arena where students can discuss matters and compare experiences outside of their course specific module. This methodology of learning is often new to the students so they can help

each other through the study methods learning curve or try and form study groups within their own region.
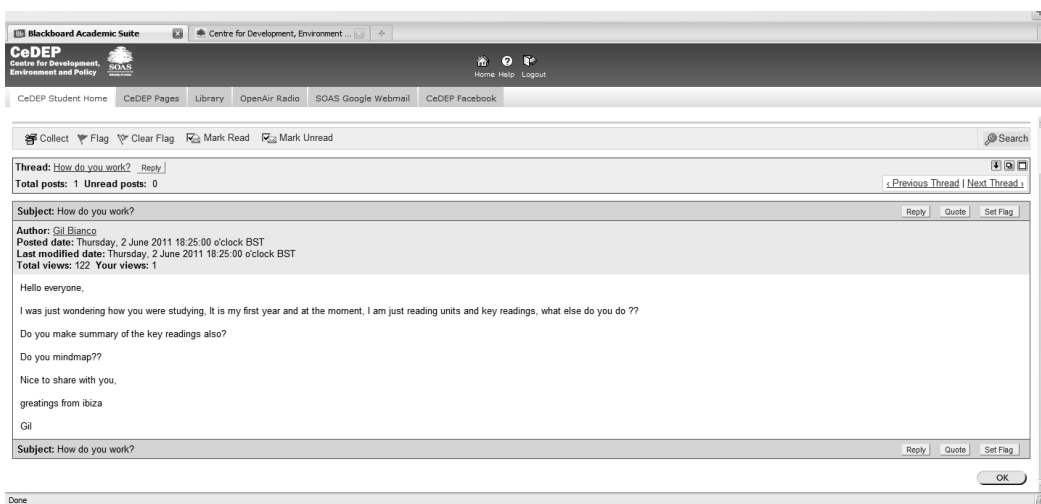
(From a secure website which requires a log in from
https://www.ble.ac.uk/webapps/portal/frameset.jsp?tab_id=_790_1, 2011)

Also, to help create a sense of community with the on campus students and institution as a whole, the students can access the student radio stations and have access to podcasts and online discussions.

(http://soasradio.org/, 2011)

Chapter 6 Recommendations and Prospects

Prospects in the United Kingdom

As discussed in previous chapters, it is a turbulent time in the UK for all aspects of education. It is hard to make review the prospects within the UK for e-learning and lifelong learning as funding is withdrawn and institutions trim expenses and investment. To try and predict the future here is very difficult and should be reviewed in two to three years time when the period of transition has hopefully ended and there is a period of consolidation of policy, funding and practise.

In the meantime, there are two main areas where development may come from outside the current nationalised policies:

  i) Private investors. As organizations such as Learn direct and University for Industry are cut from public spending, the opportunity to look for private investment to fund innovation and maintenance. This may have a high cost for the central integrity of the organisation. It can be reasonably expected that a private organisation would want to make profit and thus it would probably drive up the prices of the organisation. As this is an open method of learning and seeks to appeal to people that have not been educated through the traditional routes, this may compromise the appeal of the Learndirect or similar and price this option out of contention for the people who want / need it the most.

  ii) Necessity may create innovation. Those offering lifelong learning and education are looking to cut costs and improve services. Technology offers some of the solutions in terms of time saving as well as being an expectation by many. Those born in 'Generation Y' (born 1980 onwards) are now one of the prime groups looking at their learning and qualifications. In their 20's and 30's – those that did not manage the traditional system are looking at the opportunities around

them and they are used to technology. When discussing technology and learning, it is very important to bear in mind that technology is a methodology for delivery of learning and not learning itself. This can get lost in the scramble for development. The other issue with technology being introduced is that to do it well takes planning, investment and time. Too frequently, organisations and institutions take what seems to be an easy and cheap technological solution and find that it doesn't answer the need or the requirement that it was intended to.

Recommendations

To create a global community of policy sharers for e-learning in lifelong learning is a very ambitious idea. States such as the United Kingdom already have established organisations for provision at all levels so bringing about policy change and standardisation would be very hard to achieve. To create the cohesion that would help aid institutions and organisations within the UK and throughout the global community, simple steps would be the first place to start.

1. Create a table of comparisons for education for each nation from pre-school to basic adult learning to PhD and all the variations between.
   This will aid discussions about the level and qualifications between international colleagues about what is to be achieved in lifelong learning policy and e-ASEM. It would make discussions more translatable for an individual at a national level when decisions and strategies are deliberated and decided.

2. Discuss and agree a universal definition of 'lifelong learning'
   This definition should be in two stages. Firstly a simple, single sentence or sentences that encapsulates the essence of lifelong learning as implied globally. Secondly to create a single page breaking down lifelong learning into the categories it can cover on an international arena such as compulsory education, adult education. If there is divergence in the understanding of lifelong learning according to the educational area and nation, this can be included but a single decision will enhance the ability of the group

to inform and influence policy makers when moving forward. If one single definition for lifelong learning can be decided, individual nations can look to see how their own interpretation of the phrase could alter their own definitions to move to this centralised model. Discussions could take place within e-ASEM for those needing to move to a new definition and international suggestions and aid would be invaluable.

3. Discuss and agree a universal definition for e-learning

As in the second recommendation, this should be broken down into two parts. Firstly, e-ASEM should create a simple single phrase that can be used quickly and summarises the essence of the group's interpretation of e-learning. This would lead to a longer international interpretation that can then be used when approaching third parties. This could include approaches to policy makers or institution heads.

It could also include the information for what is wanted from e-learning for approaches to educational technologists at an institutional and national level. When agreeing this definition, it would be recommendable to consult some of the leading innovators in educational technology. A list of the individual national educational technology leaders for each of the member countries could be used.

It would also be advisable to seek U.S.A. information about their definition and market leaders for e-learning and educational innovation. The U.S.A. currently has the largest operating distance learning university in the world –the University of Phoenix. The group could seek an Educational Technologist from this establishment (or another appropriate source) to update and advise on the current U.S.A. approach and latest technologists as well as to define their understanding of both e-learning and lifelong learning.

4. Create a table of international benefits for e-learning for lifelong learning

When discussing lifelong learning and e-learning with other groups, it is essential that the group can demonstrate both the features and the benefits.

A simple document of what is advantage and achievements that can come from using e-learning to promote and enhance lifelong learning would be useful for approaching third parties. While the benefits of e-learning can seem apparent to e-ASEM, the government, institutions heads and numerous third parties may not gain the same conclusions as the group. To help with policy creation, a simple list of the benefits that are achieved could be the difference to the assumption that they are obvious.

5. Create a simplified list of the best national level providers for e-learning for lifelong learning

Each of the contributing nations to this paper may have a leading example of a provider using e-learning for lifelong learning. In the United Kingdom, Learn Direct and the University for Industry can be seen as a leading example. If an example can be chosen from each country and then compiled into a list, this list could be used as international examples when e-learning is discussed with policy makers. Once the group has also decided on the example they wish to learn about most from each country, the individual can look again at the history, their funding, their policy decisions and their future. They could also approach the provider to gauge interest in joining the group or meeting with international counterparts to discuss long term goals and ambitions.

6. Create a simplified list of the leading case studies from the countries contributing to this white paper. This should include different levels or qualification levels and throughout the learning process from initial enquiry through to alumni care

The contributors to this paper will have all included at least 6 case studies of e-learning in lifelong learning within their own country. The group should look at these and decide on one individual case study from each country. This could create a list that looks from the beginning of education through to the last opportunity and the different practises globally, creating a timeline of a student education. The individual could then go back to

these case studies and add to them, making them more thorough and look at the logic and policy behind them.

7. Decide on an area of specialisation for e-ASEM members to focus on. The group reviewing this white paper should decide on one or a couple of very specific areas to concentrate on. This could be adult learners going back to basics. Or it could be higher education and learning platforms. Once a specialisation or several specialisations have been decided, the group can return to their own national level and look into that specific area in much more detail. This can be then be used as a way of learning a great amount about a very specific area and possible start to influence policy at an institutional level or change current practices. A best practise list of recommendations could be devised by the group once a specialised area within each nation has been researched in great detail and the best practises have been decided.

8. Compile statistical analysis of the number of people in this specialised area or areas.
   This statistics should be both national and international. This will involve looking at the international educational comparisons and deciding on firm boundaries for the areas – which can be statistically analysed. The information from the statistics would then feed back into recommendation 7 and could be used as evidence to support low level change. Once low level change has happened, this would then inform on a national and international level and could be shown to be statistically successful.

9. Create an international pamphlet combining the information agreed on above in recommendations one to six.
   Using all the points in the recommendations above, e-ASEM should seek to create a user friendly international pamphlet that can be distributed to:

i.   Governments and national educational departments

ii. Regional education departments, providers or funding bodies

iii. National policy makers for lifelong education (this may be government or private funders)

iv. Leading educational institutions

v.   Open educational institutions

vi. Alternate working groups looking at e-learning and lifelong learning on a global scale

vii. Foremost technology companies

viii. Colleagues within ASEM

ix. Individual working arena

x.   Leading state employers within a nation

This could be used to further the awareness of the mission of e-ASEM as well as present a coherent international guide on the definition, benefits and advancement of e-learning for lifelong learning.

10. Agree on a country to champion the recommendations and outcomes of this paper.

The decisions and definitions of the group are being used as a method of influencing and aiding the overall policies of nations for the benefit of e-learning for lifelong learning. This paper aimed to unite several nations and to learn and benefit from the international experiences and current methodologies. Once the comparison has been drawn between the contributors, the following recommendations, in this chapter, are the theory of how to use this information to create something international. The next step is to try and use this theory and its concepts and see if it is possible for the information within this academic exercise can be used to change government methodologies, policies that govern how lifelong learning is managed and to justify these changes to any funding bodies. The group should select a single nation and see if the ideas that have emerged about the definition and the benefit of e-learning for lifelong learning can be understood at the highest level and used accordingly.

The United Kingdom has a very comprehensive lifelong learning policy and is currently in a state of change due to a change in government and a change of funding priorities so the UK is probably not the right country to try and influence and champion the outcomes of the overall white paper.

Sarah Jones
23rd August 2011

References

Anon., 2011. 'Business in the Community ; Consultations' Available from http://www.bitc.org.uk/wales/what_we_do/environment/policy_funding/consultations.html [Accessed May 2011]

Anon., 2011 'Analytics Quality Glossary'. Available from http://www.qualityresearchinternational.com/glossary/lifelonglearning.htm [Accessed April 2011]

Anon., 2011. 'Directgov: Public Services in One Place'. Available from http:// www.direct.gov.uk/en/EducationAndLearning/AdultLearning/LearningOutsideTheClassroom/DG_4016860 [Accessed June 2011]

Anon., 2011. 'Department for Business Innovation and Skills: Quarterly Statistics First Review' Available from http://www.thedataservice.org.uk/NR/rdonlyres/C8A2149A-3CB3-4F19-B661-67A4F8571E4C/0/SFR_Commentary_June11.pdf [Accessed June 2011]

Cullen, J., Batterbury, S., Foresti, M., Lyons, C., Stern, E. 2000 'Informal Learning and Widening Participation'. DFEE. Available from https://www.education.gov.uk/publications/standard/publicationDetail/Page1/RB191 [Accessed June 2011]

http://www.thedataservice.org.uk/NR/rdonlyres/C8A2149A-3CB3-4F19- B661-67A4F8571E4C/0/SFR_Commentary_June11.pdf

Black, J and Metzger, T. 2007. '*Innovative Educators: Increasing Enrolment and Retention via Technology*' [conference]

Brown, N., Fluck, A., Wilson, K., Fitzallen, N., 2007 '*Meeting the Challenge: Professional Learning for Integrating ICT into Science and Mathematics Classes*' Available fromhttp://www.dest.gov.au/Search.htm?query=lifelong%20 learning [Accessed June 2011]

Chantrill, C. 2011 'Time Series Chart of UK Public Spending'. Available http://www.ukpublicspending.co.uk/downchart_ukgs.php?chart=20-total&state=UK&local= [Accessed June 2011]

Creed, C., Allsop, T., Mills, R. and Morpeth, R. 2005. '*The art of the possible: issues of learner support in open and distance learning in low income countries*' Vancouver: Commonwealth of Learning.

Dey, S., Mills, R. and Schofield, A. 2006. '*Developing Distance Education in the context of work-based learning communities*' Learning to care, A UK Open University widening participation initiative.

Dunn, E., 2011. 'Life Through Learning; Learning through Life summary document'. Available from http://www.scotland.gov.uk/Publications/2003/02/16309/17778 [Accessed June 2011]

Jefferies, A., Hyde, R. '*Listening to the Learners' Voices in HE: how do Students Reflect on their use of Technology for Learning?*' Electronic Journal of e-learning. Available from http://www.ejel.org/Volume-7/v7-i2/Jefferies_and _Hyde.pdf [Accessed November 2010]

Lentell, H. and O'Rourke, J. 2004. '*Tutoring Large Numbers: An unmet challenge*' International Review of Research in Open and Distance Learning, 5:1.

Moore, M. 1989. '*Distant education: A learners system*' Lifelong Learning [conference].

Northedge, A., 2005. '*The Good Study Guide*' The Open University Press

O'Rourke, J., 1993. '*Roles and Competencies in Distance Education'* Vancouver: The Commonwealth of Learning.

Raza, R. and Allsop, T. 2006. '*Using Distance Education for Skills Developmen*t' London: Department for International Development.

Roberts, D. 2005. '*Learner Support in South African Distance Education: A Case for Action*' Pretoria: University of South Africa.

Roper, A. 2007. '*How Students Develop Online Learning Skills*' EDUCAUSE Quarterly. Available from http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSE QuarterlyMagazineVolum/HowStudentsDevelopOnlineLearni/157435 [Accessed November 2010]

Simpson, O. 2007. '*Retention in Distance Learning & Part-Time Learning Seminar 8*' [conference].

Simpson, O. and Johnston, V., 2005. '*'Retentioneering' Higher Education in the UK: Attitudinal Barriers to Addressing Student Retention in Universities*'. International Research Foundation for Open Learning.

Simpson, O. 2004. '*Student Retention and Course Choice Process: the UK Open University experience*' The Open University

Simpson, O. 2004. '*The impact on retention of interventions to support distance learning students*'. Open Learning, 19:1.

Simpson, O. 2003. '*Student Retention in Online, Open and Distance Learning*' Routledge Ltd.

Simpson, O. 2006. '*Predicting student success in open and distance learning*' Open Learning, 21:2

Uzuner, S. 2009 'Questions of Culture in Distance Learning: A Research Review' The International Review of Research in Open and Distance Learning, Vol 10, No 3 (2009). Available from http://www.irrodl.org/index.php/irrodl/rt/printer-Friendly/690/1273 [Accessed November 2010]

Appendix 1.

Email from Learn Direct Team 25th July 2011

Dear Sarah,

Thanks for your enquiry to learndirect learner services. I hope the following information will help.

E-learning simply means that the courses will be accessible on your computer if you have an internet connection. With our flexible online courses it's easy to fit learning into your life. You can access your courses at any time that is convenient for you and do as little or as much as you like.

If you need a quick course to fill a skills gap in your CV, or if you're a business looking for some cost effective training, then our eCourses could be right for you. You can buy one or more today and start learning right now - all the support you need is built into the course. Visit our eCourses catalogue for more information.

We offer a range of courses in English, maths, IT and business and management that lead to nationally recognised qualifications. Why not take a moment to see if you might be interested in one of these courses?

The Next Step website can also provide more information on how to improve your work skills and get ahead at work. You can also call them on 0800 100 900.

Should you need to contact us regarding this query, please quote reference number – CRN 1378727.

Contact us

Email: enquiries@learndirect.net
Freephone: 0800 101 901 (Helpline is open 7am –11pm, 7 days a week.)
Post: FREEPOST
                 learndirect
Kind regards,
Dean
The learndirect team

Our online Community: If you want to chat about courses, get support from other learners or you want to ask general questions about your learning then join our learndirect Community.

From: Jennie Hopkinson [mailto:jhopkinson@ufi.com]
Sent: 12 August 2011 13:15
To: 'Sarah Jones'
Subject: RE: Case Studies

Hi Sarah
Please find attached a couple of suggested case studies – however we have more if these aren't quite right for you.
Kind Regards
Jennie
Ufi Limited
Registered in England No. 3980770
Registered Office: Dearing House, 1 Young Street, Sheffield, S1 4UP
learndirect Solutions Ltd
Registered in England No. 5081669
Registered Office: Dearing House, 1 Young Street, Sheffield, S1 4UP
UFI Charitable Trust
Registered in England No. 3658378
Registered Charity No. 1081028
Registered Office: Dearing House, 1 Young Street, Sheffield, S1 4UP
This email has been scanned by the MessageLabs Email Security System.

Dawn Stoddard – North West
Dawn Stoddard, 46, from Adlington in Chorley, has fought through various difficult circumstances to get herself back into work after 12 years of unemployment. Having suffered from a range of health issues herself, Dawn then nursed her terminally ill father, who encouraged her to make sure that when he passed away she got the

qualifications she needed to help her get back into work. She went to learndirect and has not looked back since. She now works as a tutor/assessor for mental health sufferers and attributes her success to the qualifications she secured with learndirect.

Having left school, Dawn went on to study at college, but she then began to suffer a mixture of health problems which eventually resulted in her having a hysterectomy. Then, when her father was diagnosed with cancer, Dawn didn't hesitate to look after him in her home, which she shares with her husband, Ian, and 15-year-old son Christian.

When her father passed away, Dawn was determined to get back into work, but having not been in employment for 12 years, she knew it would be a struggle. She applied for a range of jobs but had no success. Her local Jobcentre Plus then suggested that taking some further qualifications could help, so she went to her local learndirect centre to see what was available.

Dawn said: "I went to learndirect as I was computer illiterate, which I felt was holding me back from getting a job. When I walked into the centre I immediately felt at ease. There was a great atmosphere and the tutors were very understanding of the other commitments I had outside of learning."

Her learndirect tutors suggested that Dawn focus on updating her maths, English and IT skills, so she began working towards her levels 1 and 2 maths and English qualifications, as well as her ECDL and ITQ.

"I found the learning challenging but with learndirect you do it step-by-step so that helped a lot. It's also a very flexible system which allows you to do your learning online at home, which I found much easier than when I'd been studying at college. I'd wait until Christian went to bed and then pick up my laptop and do my learning. The tutors were on hand whenever you had any questions, and I often emailed them with queries I had and they'd be happy to help. What's more, I didn't have to pay

for my qualifications because I wasn't working, which was a real weight off my mind."

Whilst doing her IT qualifications Dawn felt she had gained enough confidence to apply for a job as a community support worker for high-end mental health sufferers. She was successful in her application and returned to the workplace to embark on a new and rewarding career. She has since been promoted and now works as a tutor/assessor.

"My new IT skills have come in really handy at work as I write electronic reports as part of my role. I'm also now able to help my son with his homework and help my friends out too if they have any questions about their own computers!

"Without the help, support and confidence boost I have received from learndirect, I believe I would still be out of work. Thanks to them, I have, at last, been given the opportunity to put my new skills into practice."

"My family have been so supportive of my learning. It's been a struggle at times but everyone has been very encouraging – we've got through this as a family.

"From nervously walking through the doors, the experience with learndirect has been fantastic. Learning with learndirect has given me the chance to prove myself. It's given me real self-confidence and a future filled with hope. It's really changed my life and I'm even encouraging my clients to get involved too – I'd advise anyone to walk through those doors and get started!"

Amanda Cowan - London

Amanda Cowan's life has changed dramatically over the last few months. She has gone from being a single mum relying on benefits to securing a job as a learning centre assistant. The 43-year old mother of two teenagers, from Catford in South East London, is an inspiration to anyone who has been afraid to make any life changes because of a lack of confidence.

Up until last year, Amanda had been a stay-at-home mum. Before she had children, she did get qualifications as a massage and reflexology therapist but only had temporary jobs working in pubs and shops. After 16 years of being a mum and looking after her kids, she wanted to set an example to them and decided to get a job. She was referred to **learndirect** through Jobcentre Plus and she hasn't looked back since.

"I left school at 15 because I was bullied and I really didn't enjoy it," said Amanda. "I did go onto college but I never gained the skills I needed for a job that would support me and a family. I decide to stay at home because as a single parent I wanted to make sure my kids were ok. They are now teenagers though and they don't need me to be at home during the day. It was important to me that I decided to make a change and support myself and them but I didn't have any real job experience and was really scared of using computers – it was typewriters in my day!"

"I found taking my first steps into Animee **learndirect** centre was daunting. I was worried and apprehensive that I would not be able to do the learning. However, I soon found that learning with **learndirect** was very different to the negative experience I'd had at school. I was quickly put at ease by the staff. I was still nervous about even switching on a computer but they were supportive and understanding. All the learning is online so it's really flexible and I could work at my own pace. Whenever I got stuck or needed something explaining there was always a friendly face to help answer your questions."

"I dedicated three days a week to getting my ECDL qualification and actually started to really enjoy it," added Amanda. "The relaxed atmosphere is great and it just brings you out of your shell. I found working with databases and spreadsheets difficult but I persevered and the whole learning experience has really boosted my confidence."

In September 2009, Amanda also started an NVQ in Business and Web Design and began volunteering at the centre. When a permanent position arose as a learning care assistant, Amanda jumped at the chance and was successful in securing the position. Using her first-hand experience, Amanda is now able to help other learners who are in a similar situation to the one she was previously in: "I'm loving every second of my new job and I'm progressing all the time in my role.

"One of the great things about working at a **learndirect** centre is that I can continue to learn. I am studying now for my level 1 Diagnostics and will also be doing a maths qualification in the near future. Friends and family were surprised about me starting learning again in my 40s, but look at me now - I've got some qualifications under my belt, a new job and a life that I am proud of, I have always wanted to be a role model to my kids and show them that learning and hard work pays off. I feel that I am definitely on my way to doing that!"

Part Ⅱ

Cross – Analyses

Three Country Reports
(Latvia, Philippines, UK)

01

Asia Europe Case Study
University of JyväskyläGlobal Information Systems
Prof. Dr. Jan M. Pawlowski

University of Jyväskylä
Global Information Systems
P.O. Box 35, Agora
FI-40014 UNIVERSITY OF JYVÄSKYLÄ
Finland
Tel. ++358 14 260 2596
Fax. ++358 14 260 3011
Mail. jan.pawlowski@jyu.fi
Web. http://users.jyu.fi/~japawlow

Jan M. Pawlowski

Prof. Dr. Jan M. Pawlowski is Professor for Digital Media, in particular "Global Information Systems" at the University of Jyväskylä, Department of Computer Science and Information Systems. His main research interests concern the globalization and internationalization of information systems. His habilitation dealt with the use of reference models for quality management in education and knowledge management. He has continued this work to develop models for different application domains: globalization of knowledge management, process management and supportive technologies for global workgroups, and e-learning, in particular the internationalization of Open Educational Resources. The work includes the research coordination of several national and European projects focusing on different aspects of the globalization and support of information systems development and deployment, such as Reference Modelling, Process Management, Learning Technology Standardisation, Quality Management and Quality Assurance for Education, and Mobile / Ambient Learning. Jan Pawlowski is actively involved in research organisations (EFQUEL, AACE, GI, IEEE) and in standardisation organisations (CEN, ISO/ IEC JTC1 SC36). He is acting chair of the CEN/ISSS Workshop Learning Technologies and member of the board of the European Foundation for Quality in E-Learning (EFQUEL).

Introduction

E-Learning approaches and implementations provide new opportunities for learning, education and training in particular for Lifelong Learning. This paper discusses the current and future state of e-learning for Lifelong Learning (LLL) in Latvia, Philippines and United Kingdom. It discusses the current status and provides recommendations for potential collaborations and future projects as well as development recommendations.

This paper provides a brief summary of three white papers on e-learning for Lifelong Learning (LLL) in Latvia, Philippines and United Kingdom. This paper does not intend to provide a comprehensive analysis or even judgment of the systems and approaches described. Due to the excellent input from those white papers, I would like to recommend to look at those papers for an in-depth analysis in the target countries. This cross analysis tries to identify the key issues and aspects but it should just serve as a basis for discussion for the e-ASEM conference in May 2012 in Copenhagen.

The papers have been written by the following authors:

- Latvia: Rita Birziņa, Iveta Gudakovska, Irina Maslo, Vjačeslavs Šitikovs, Vladislavs Mazurs, JānisBičevskis, Ingrīda Muraškovska.
- Philippines: Juvy Lizette M. Gervacio
- United Kingdom: Sarah Jones

The summary is structured as the following − the first section describes the methodology. The second chapter summarizes the basis for this report: different educational systems and policies in the participating countries. The next chapter looks at the different programs, followed by an analysis of cases and examples. The main outcome is a list of common topics, followed by a discussion. The paper concludes with recommendations and personal remarks on potential follow up actions.

Chapter 1　Method and background

A cross country analysis is a complex task which highly depends on the perspective of analysis as well as the cultural context. As a first step, an analysis grid was developed based on the structure of the paper as well as on a model describing cultural and organizational contexts (Pawlowski & Bick, 2012).

The analysis can just compare aspects which are described in all three reports. Some aspects are described on a different level and can thus not be discussed in detail. In these cases, further discussions should be based on the detailed white papers and elaborated further in the discussions during the e-ASEM conference.

The analysis grid is structured as following:

Table 1 Analysis grid

Category	Description
Educational systems	What is the basis for educational developments in the target countries, which structures are relevant?
Culture, policies and strategies	What are cultural aspects affecting the use of e-learning in a society and in organizations? Policy and strategic aspects cover government and organizational policies and strategies regarding the inclusion and utilization of e-learning?
Sectors	How is e-learning utilized in different sectors and domains?
Good practices	Which cases have been proven successful and how can these experiences be utilized?

The comparison focuses mainly on two aspects which are derived from the goal of this report:

Which impact do the above mentioned influence factors have on **Lifelong Learning** and **E-Learning**? What can be learned from implemented policies, systems and cases? These simple questions reflect the main goal and research question for this report.

Chapter 2 — Educational systems, policies and strategies

In the following, I will briefly discuss the different systems showing the context for e-learning developments in those countries. A focus is the analysis of policies and strategies (e.g. regarding regulation, funding). Furthermore, cultural aspects should be incorporated, in particular in the discussion during the conference. The chapter concludes with a discussion on the consequences for LLL and e-learning developments.

2.1 Latvia

The Latvian system is strongly embedded in European developments towards the European qualification framework (EQF) as well as based on the International Standard Classification of Education (ISCED). With proposed changes in 2011, the following structure with according degrees and programs can be found:
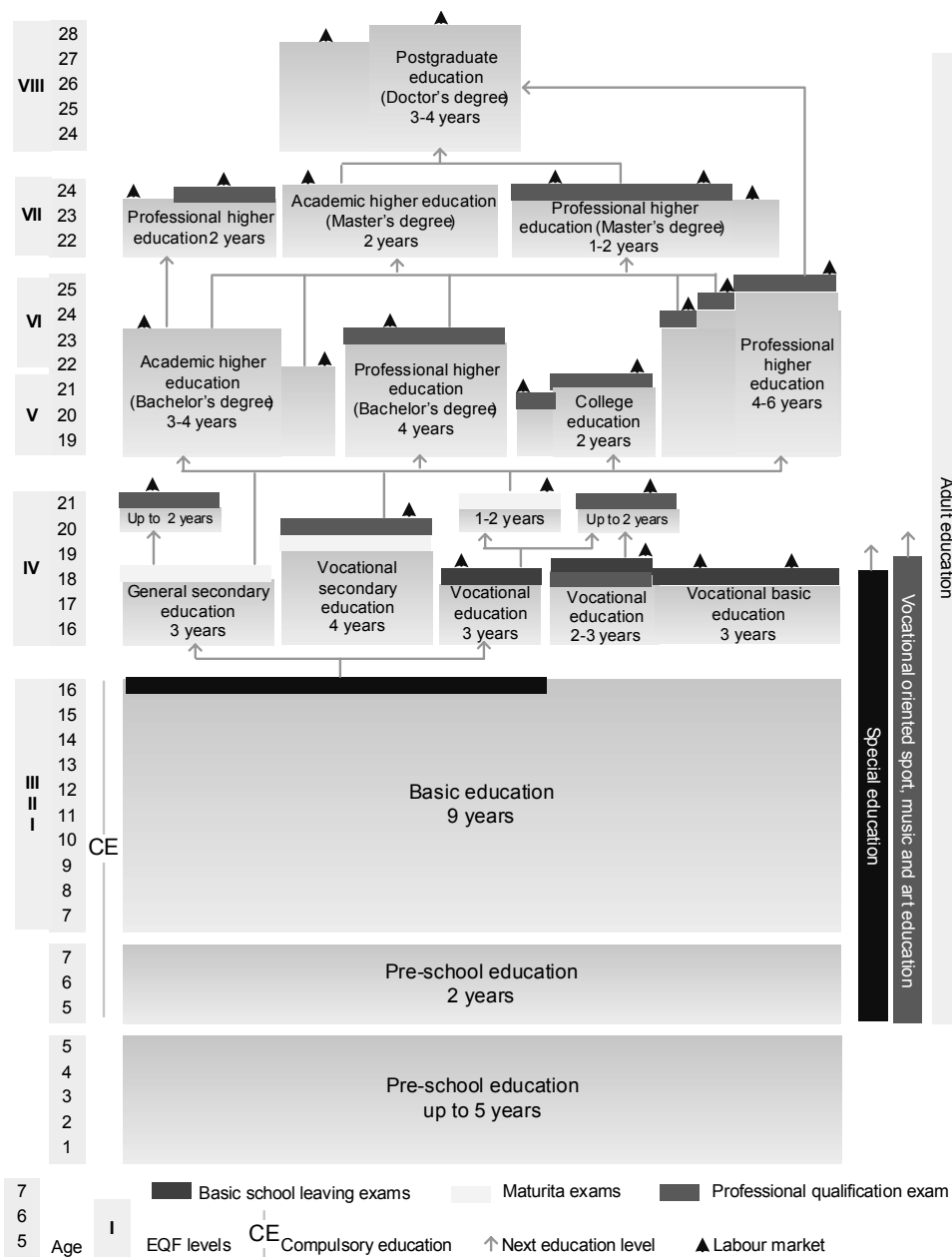
Figure 1 The Structure of Educational System of Latvia (Based on Referencing of the Latvian Education System to the European Qualifications Framework for Lifelong Learning and the Qualifications Framework for the European Higher Education Area, 2011)

Several specifics can be found in the system:

- Special needs education: A specific program aims at the inclusion of people with special needs
- Vocational education: This stage of the education process is undergoing a reform. The current structure contains vocational training as well as post-secondary, non-tertiary education aiming at acquiring professional skills.
- Higher Education, 37 public institutions of higher education and 21 higher education institutions established by legal bodies to offer the studies on Bachelor, Master and Doctoral level. This contains academic as well as professional Higher Education.
- Adult Education contains both formal and informal learning settings. This is especially relevant focusing on (1) availability; (2) quality; (3) cooperation and shared responsibility. A system for recognition of informal / non-formal learning is in place since 2011.
- Tuition for basic education is mainly government responsibility. For Higher Education, a certain percentage of students receive free education, for further students a tuition fee can be set by institutions.

On a policy level, a variety of initiatives has been started and implemented regarding Lifelong Learning and E-Learning.

In principle, Latvian policies follow European standards utilizing the EQF – rather new education laws are in place aiming at improvement of both formal and informal learning.

Specifically for LLL, the term of Adult Learning and Education (ALE) is used which has not yet been taken up into legislation. However, this movement can be seen as a strong initiative and network covering educational institutions, enterprises as well as various ministries. This indicates a strong position and impact as well as a clear priority for society.

Regarding e-Learning, Latvia has also taken up and influenced European movements towards a knowledge society: "As it is specified in the Latvian National Development

Plan for (NDP) 2007 –2013, the aim of Latvia is to build a knowledge-based economy and improve the quality of life, where everyone has the ability to use information and communication technologies (ICT) and opportunities of the content to achieve this aim. Implementing an information society, it is necessary to create equal opportunities to use ICT and e-services for everyone, reduce the digital gap (the difference) and improve opportunities and quality of life for those citizens who do not use modern technologies. (Birziņa et al., 2012)"

Several programs affect E-Learning (and general ICT skills) as well as LLL:

- Latvia's E-Government Concept
- Information Society Development Guidelines for 2006-2013
- Concept of a Principle of a Single Contact Point in Accordance with the Provisions of the Services Directive (2006/123/EC)
- The Concept on Electronic Identification Cards
- Electronic Government Development Plan for 2010-2013

These policies and programs also led to certain focus areas and concrete actions, such as:

- development of electronic study resources;
- development of education information system;
- raising the ICT competence of the teaching staff;
- upgrading and maintenance of the education system ICT infrastructure. (Birziņa et al., 2012)

As a conclusion, it can be stated that Latvian policies have taken up, initiated and implemented important aspects of E-Learning for LLL. In some cases, those are well integrated into other strategies (e.g., regarding building a knowledge society). In other cases, clear actions and focus areas are addressed (such as building electronic study resources). This means that the government influence has led to clear awareness and actions for E-Learning and / for LLL.

2.2 Philippines

The Philippine system also follows international standards. It was stated that "the basic education system in the Philippines is considered as one of the shortest in the Asia-Pacific region. It is made up of one to two years of pre-school education, six years of compulsory primary education, four years of secondary education and four to five years of higher education." (Gervacio, 2012) The following figure shows the basic structure of the system.
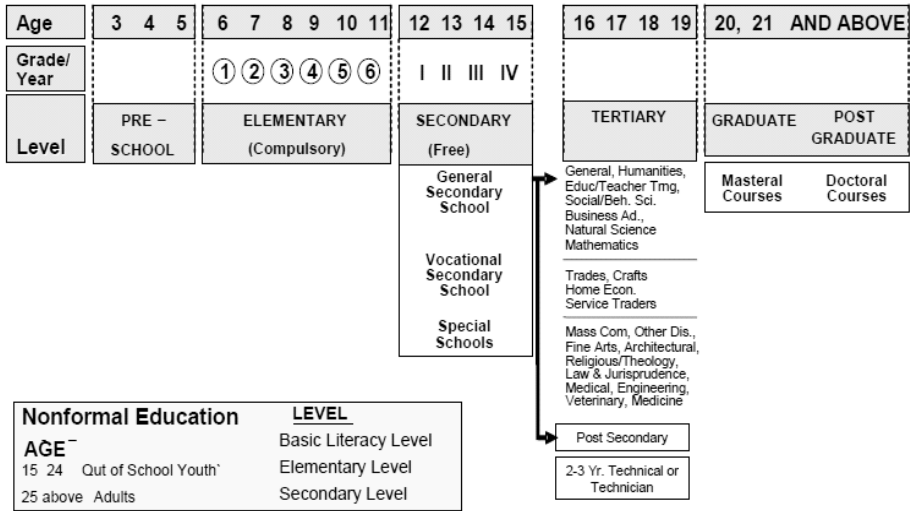
Figure 2 Structure of the Philippine Educational System (Lapus, 2008)

Basically, three levels can be found with the following specifics:

- Early Childhood and Basic Education: As a starting point, around 77 percent of five-year-old children are served by accredited public and private preschools and by day care centers. It was stated that budget constraints have led to underinvestment in basic education. Also, teacher qualifications remain to be an issue, especially at the secondary education level, both in terms of content and pedagogy (Gervacio, 2012).

- Technical Vocational Education and Training: Technical Vocational Education and Training (TVET) is carried out through both formal and non-formal means. The provision of TVET through formal means is dominated by the private sector. For the nonschool-based training, most of the providers are publicly-funded institutions. (Gervacio, 2012)
- Higher Education: The landscape of HE is rather diversified. There are 2,180 higher education institutions (HEIs) all over the country, of which 607 are public and 1,573 are private. It can be observed that rather high drop-out rates can be an issue regarding high level qualifications.

On a **policy level**, a focus on LLL can be observed: The medium-term Philippine Development Plan (MTPDP) 2004-2010 of the Philippine Government to put primacy "on quality and accessible lifelong learning, from early childhood development to primary, secondary and tertiary learning". The integration of LLL into the overall education system is therefore on the way.

However, it is stated that LLL is mainly provided in traditional forms, only a small fraction is utilizing e-learning opportunities. Although e-learning for LLL is not specifically addressed, several policies promote ICT in the educational system: The Basic Education Sector Reform Agenda (BESRA), the Basic Education Curriculum (BEC), Schools First Initiative (SFI) and the National Action Plan to Achieve Education for All (EFA) (DepEd, 2009).

On a regulatory level, different organizations are involved: "The Department of Education (DepEd) manages the basic and secondary education, the Technical Vocational and Skills Development Authority (TESDA) handles post-secondary skills and technical education, and the Commission on Higher Education (CHED) supervises the tertiary and post-graduate education. Although these three agencies are tasked to regulate the education sector, they have not really utilized their regulatory power on e-learning." (Gervacio, 2012)

As a conclusion, it can be stated that policies are in place to promote both, e-learning and LLL. However, an integrated policy and action plan seems to be missing.

Furthermore, the impact of the policies cannot be clearly assessed and analyzed.

2.3 United Kingdom

The UK system has been undergoing a variety of changes in the past years. The basic structure is shown below:

Age	Year Name	Curriculum Stage	School	
3	Nursery	Foundation	Nursery School	
4	Nursery		Infant School	
5	Year 1	Key Stage 1		
6	Year 2			
7	Year 3	Key Stage 2	Junior School	
8	Year 4			
9	Year 5			
10	Year 6			
11	Year 7	Key Stage 3	Secondary School	
12	Year 8			
13	Year 9			
14	Year 10	GCSE		Secondary school with sixth form
15	Year 11			
16	Year 12	Sixth Form/A&AS Levels, voctional studies	College/Sixth Form	
17	Year 13			
18		Bachelor Level degree	University	
19				
20				
21		Masters level degree	University	
22		PhD Degree	University	
23				
24				

Figure 3 UK educational stages

The following specifics can be observed:

- Basic education is compulsory between the age of five and 16. Different schools can be found (e.g., voluntary-aided schools)
- Further education is a specific form providing general, technical as well as professional qualifications.
- Special needs education is provided outside the standard system up to the age of 16.
- Higher Education: Different institutions exist, either recognized (awarding degrees) or listed (no degrees) depending on their accreditation by the Quality Assurance Agency (QAA)
- Adult and Continuing Education is provided through different institutions and channels. This contains also further professional qualifications.

On a policy level, significant changes are on the way due to new policies after the 2010 government change. Thus, some of the policies and initiatives might be subject to strong changes. Therefore, the results of this analysis might not be sustainable. However, a clear focus has been set on accreditation and centralized policies and initiatives (such as University and College Admission Service, Quality Assurance Agency).

In particular for LLL, also non-government / professional initiatives are relevant, supported by policies such as the "Learning and Skills Act".

LLL is furthermore "an important part of government policy. Informal learning is seen as one way to remove barriers and widen participation in learning" (https://www.education.gov.uk/publications/standard/publicationDetail/Page1/RB191)

Several initiatives have been supported as a political / strategic instrument, such as

- JISC: Joint Information Systems Committee
- Learn Direct
- Open University
- National Extension University

These relevant initiatives directly provide programs and systems to improve e-learning and / for LLL.

E-Learning and LLL are essential parts of the UK education system. It can be stated that a variety of central governmental initiatives have been established and successfully adopted.

2.4 Comparison

In the following, I will briefly summarize and discuss the reports on a policy / strategic level.

Culture and context

Three countries are analyzed in this report which differ significantly in terms of size, demographics, culture and educational system. It is important to understand the educational tradition: as an example, the Latvian system has been rather recently reformed whereas the UK system has developed continuously for many decades. Not all policy effects can thus be assessed in Latvia (which is also the case for the changes recently introduced in the UK).

However, it is essential to understand which aspects could be transferred from one country to another and which aspects are too much embedded in system and culture. Generally, the Latvian system can be seen as rather dynamic and many of the political changes as well as initiatives can serve as practices for countries in similar situations – it can be assumed that some of the recent changes in the Philippines can beneficially utilize experiences from Latvia, even given the fact of demographic and cultural differences.

Other transfers could be studied for specific aspects, such as special needs education. Some aspects are hard to compare as they are strongly embedded in historic and cultural background (e.g. inclusion of minorities or groups with less access to educa-

tion).

In general, the transferability should be studied and discussed case by case.

Centralization

All three countries have clear national / governmental initiatives for e-learning as well as LLL. However, due to demographic and political factors the impact differs strongly. The concept of a strong national initiative such as JISC or clear national policies seem to play an important role for success. However, this is only possible in countries where the national government is responsible for educational / training policies (in contrast to countries such as Germany with federal structures for education).

Participation, Outreach, Scope

Based on strong central / governmental initiatives, it is necessary to involve stake-holders across sectors (from pre-school to older citizens), in different institutions (e.g. all faculties in all universities). Latvia provides a good example of policies and programs for all sectors (see below). In the UK, the strongest developments are visible in Higher Education but also to a certain extent in adult education. In the Philippines, the policies are ready but programs and actions need to be im-plemented to reach a broad part of the population, especially people with less access to education or people in remote regions.

Alignment with international policies

Latvia seems to be most involved in international initiatives, in particular embedding their efforts to European standards like EQF. In the UK, many international policies seem to be strongly adapted to the country's educational and cultural traditions. It was not analyzed in the white paper, how the Philippine policies are embedded into further collaborative Asian initiatives.

However, this harmonization might play an important role in the future ¬aligning policies on an international level while maintaining the cultural / educational identity should be a major focus for future policy making.

Summary

Policies in the countries address e-learning and LLL
The most important factors can be summarized as following.

1. There is a clear policy addressing different issues of LLL
2. There is a clear policy of e-learning / ICT for education
3. Policies are embedded in overall policies (e.g. regarding knowledge society) and connected to international standards (such as European policies, EQF)
4. Align policies on an international level
5. Programs / agencies are implemented to achieve adoption
6. Stakeholders need to be involved in all sectors, levels and institutions
7. Transferability cannot be assessed in general but should be assessed and discussed by topic
8. A variety of experiences have been made –these should be disseminated to enable collaborations, avoiding mistakes and creating synergies.

The policy aspects of the reports provided a clear analysis of the situations in the countries addressed. This analysis can compare only a small fraction but intends to provide stimulation for later discussions and in-depth discourse.

Chapter 3 Key Topics and Cases for E-Learning for Lifelong Learning

In the following, I will discuss the main programs, initiatives, cases and – as the main outcome focus topics – addressed in the reports. It should be mentioned that the analysis can only pick specific aspects, for a comprehensive review the white

papers should be taken into account(in particular for highly useful, successful example cases!). I will show research and development trends as well as pointing out good practices which can serve as a starting point for future collaborations.

3.1 Latvia

Focus Areas and Topics

In Latvia, a broad level of programs and cases is available covering e-learning use and adoption on all levels and in all sectors. It can be structured in the follwoing four main areas (Birziņa et al., 2012):

Ⅰ. **Development of Electronic Educational Resources**(1) Database of study materials; (2) Development and promotion of the development of study materials; (3) Methodology of the development and application of study materials; (4) Development of distance learning courses; (5) Accessibility of academic study resources and library information.

Ⅱ. **Development of Education Information System**. (1) User e-profile; (2) Education registers; (3) E-cooperation environment; (4) Evaluation and visiting; (5) Study process support (6) Catalogue of study resources; (7) Branch portal; (8) Education information portal; (9) Education management information system; (10) Standard of document management systems of education institutions.

Ⅲ. **Raising the ICT Competence of the Teaching Staff**. (1) Basic skills of ICT use for teachers; (2) Teacher training for the subject of information science; (3) Specific computer skills for educators who work with children with special needs, (4) Use of specialized software; (5) Training for the development and application of electronic study materials; (6) Use of distance-learning systems.

Ⅳ. **Upgrading and Maintenance of the Education System ICT Infrastructure**. (1) Mobile computers for the teaching staff; (2) Multimedia equipment; (3) Computers (public access) in libraries and reading rooms; (4) Computers for

management and administrative needs; (5) Computers for the support functions of the study process; (6) Development of education institutions local area networking; (7) Internet connection; (8) Free-access resource centre (with Internet connection).

These topics already show the priorities in nation-wide initiatives as well as in local institutions. However, further specific topics and priorities have been addressed in the following areas:

- Development of the Subject of Informatics at Schools in Latvia
- Offer of E-resources in Specific Subjects
- Development of Separate MOODLE Courses
- Development of Separate Distance-learning Courses
- Internet in Various Educational Projects Locally and Internationally
- Communication Portals
- Teacher In-service Education
- Vocational education establishment network
- Support for promoting attractiveness of vocational
- Improvement of vocational education quality
- Implementation of Distance Education in Distance Education Centres
- Blended Learning as a Typical Case in Higher Education
- Common Access to Electronic Content and Services
- e-Accessibility for People with Disabilities
- Actions towards Stimulating Digital Literacy and Competence
- E-inclusion and Cultural Diversity
- Inclusive eGovernment
- Acquisition of E-skills
- E-resource Use in LLL
- Resources Used in Formal and Non-formal Education
- Free Materials Designed for Specific Target Groups
- Free Sites for Specific Target Groups

- Charge Storage Resources to Be Used in Formal Education
- Various Free Internet Resources and Storage Formats
- Virtual Learning
- Informal Learning Resources
- Social Networks

This range of topics shows the intensity but also the variety of topics and cases developed in Latvia. These topics can serve as a starting point for further international collaborations.

Recommendations

Based on the experiences, the following recommendations were given (Birziņa et al., 2012):

The concept of Latvian LLL can be used as a combination of the humanistic and economic approach in the perception of the life-long learning. [···]

E-learning is a tool to create an effective learning community. [···] E-learning is a means to promote the changes in academic studies providing an opportunity to integrate non-formal and informal learning elements into formal education. Exactly the individualization, equity in time and e-environment can facilitate the development of students'competence.

The development of infrastructure. Thanks to the modernized public libraries with computers and broadband Internet connection during the previous 5 years in Latvia, every Latvian resident can actually use information technologies in his/her business and education, including e-learning and lifelong learning opportunities. The topical issue for the following years would be the modernization of the infrastructure of schools, universities and science.

Access to information. By the rapid growth of information processing opportunities and willingness of society to use it, the topical issue is to provide the balance between the information available in quantity, quality and diversity and society's expectations.

In this area, Latvia has started the retrospective digitization of libraries, museums, cultural heritage and other stocks. [⋯] Further progress in the digitization process is a priority for years ahead.

An educated user. According to the statistics, a large part of Latvian society is the users of Internet and information technologies. IT skills are acquired already at school where students are offered compulsory computer course to acquire ECDL corresponding knowledge.

Availability of learning content. 10 years ago in terms of LEIS project, secondary school teaching and learning materials, about 20% of all subjects' content were developed electronically within the state budget. The materials were published in Latvian on the Internet and were available to all free of charge. The published materials unlike the commercial offers received wide application.

Regulatory environment of building Information Society. Already in 1998 a strategic document – National program "Informatics" for the period 1998 – 2005 was developed and approved by the Latvian government. Unfortunately instead of one common strategy, at this moment in Latvia there are a number of long-term or short-term sectoral development strategies and plans that are mutually insufficiently coordinated and often contradictory. The move to concrete action according to a specific operational program and plan is a topicality for building information society in the next few years. There should be noted a lack of unified management.

3.2 Philippines

Focus Areas and Topics

A variety of topics and initiatives was identified in the white paper (Gervacio, 2012). The following table provides a summary of successful initatives and addresses key issues and topics for the different levels and sectors.

Table 2 Summary of the institutions that offer e-learning programs and courses (Gervacio, 2012)

Institution	Background andCourseOfferings	Website
DepED		
eSkwela	The eSkwela project is a collaboration between the CICT and the DepEd −BALS. eSkwela is a form of Alternative Learning System where ICT is being utilized in the provision of education. It uses an array of electronic modules, a learning management system, and the internet in the delivery of ALS. (http://alsesk-wela. ning.com/page/eskwela-faqs-for-learner). The following are the five major learning strands followed by ALS eSkwela based on the Basic Education Curriculum (BEC) 2002: 1. Communication Skills 2. Critical Thinking and Problem Solving 3. Sustainable Use of Resources/Productivity 4. Development of Self and a Sense of Community 5. Expanding One's World Vision	http://alseskwela.ning.com/
Technical/Vocational		
e-TESDA Portal	e-TESDA is the online delivery arm of TESDA. The e-TESDA Portal allows anybody who wishes to improve their technical and vocational skills to learn anywhere with an internet connection. The Portal contains features that allow students to post blogs, upload photos, create user profiles and participate in forums. These features make interaction possible between and among virtual teachers, instructors and co-trainees. e-TESDA has a total of nine course offerings, namely: automotive trade, electrical trade, electronics trade, civil trade, mechanical trade, refrigeration and air conditioning trade, agri-mechanical trade, instrumentation and process control, and general vocational technology (http://www.eskills.net.ph/moodle/course/category.php?id=53).	http://www.e-tesda.gov.ph/index.asp# http://www.eskills.net.ph/moodle/course/category.php?id=53

IBM Virtual Campus	The IBM Virtual Campus is an online educational institution that offers e-learning courses based on the experience of the company's IT Education Services in IT Technical Training. Some of the courses offered are IT Certification Training and Business and Professional Skills Training as well as Integrated Career Training Programs that focus on specific job roles (https://www-304.ibm.com/jct03001c/services/learning/ites.wss/ph/en?pageType=page&contentID=a0000820).	https://www-304.ibm.com/jct03001c/services/learning/ites.wss/ph/en?pageType=page&contentID=a0000820
HEIs (CHED)		
UP Open University	The UPOU is the fifth constituent university of the UP System. It was established on the 23rd of February 1995 and has since been working on its mission to "provide education opportunities to individuals aspiring for higher education and improved qualifications but who are unable to take advantage of traditional modes of education" (http://www2.upou.edu.ph/about-us/upou-vision-and-mission). With its vision to be at the "forefront of the knowledge society as a leading institution of open learning and distance education", UPOU has already been recognized by the CHED as the Center of Excellence in Open and Distance Education (http://www2.upou.edu.ph/about-us/upou-vision-and-mission). UPOU embarks on both formal and non-formal education. Its degree-granting courses can be found among three faculties, namely, Faculty of Education, Faculty of Information and Communication Studies, and Faculty of Management and Development Studies.	http://www.upou.org/academic/programs/program.htm http://www2.upou.edu.ph/about-us/upou-vision-and-mission
PUP Open University	The PUP OUS has been working on its commitment to "provide quality education through the open and distance learning system, which is responsive to the needs and challenges of a technologically advanced and globally linked society" (http://www.pup.edu.ph/OUS/vmgo.aspx). The PUP OUS has two schools. The first one is the School	http://www.pup.edu.ph/OUS/

	of Distance Education where the learner can choose to either study independently while a teacher or tutor monitors, comments and grades his/her work and progress, or study via an online classroom where the learners can communicate with each other and with the teacher virtually. The second one is the School of Professional Studies, which is further clustered into two: Non-Traditional Study Program (NTSP) and Expanded Tertiary Education Equivalency and Accreditation Program (ETEEAP).	
Pamantasan ng Lungsod ng Maynila	Since 1997, providing distance education for professionals and adults alike were already carried out by the Pamantasan ng Lungsod ng Maynila through its partner institutions. By 2002, it has formally launched its Open University. The Open University was created to provide individuals with opportunities to improve their qualifications albeit their inability to attend traditional schooling due to personal and professional commitments (http://www.bookrags.com/wiki/ Pamantasan_ng_Lungsod_ng_Maynila,_Open_University). The PLM Open University offers undergraduate programs in the fields of Public Administration, Midwifery,and Community Health Service. For its post-graduate programs, it offers Master of Arts in Business Administration, Master in Community Health Service, Master of Arts in Government Management and, Master of Arts in Nursing (http://www.bookrags.com/wiki/Pamantasan_ng_Lung sod_ng_Maynila,_Open_University).	http://www.bookrags.c om/wiki/Pamantasan_n g_Lungsod_ng_Maynil a,_Open_University
Development Academy of the Philippines	The Development Academy of the Philippines is mandated to provide development education, and pursues this mandate through the Graduate School of Public and Development Management (GSPDM). It offers flexible learning opportunities through alternative strategies and tools that may be used in addressing issues of development and reform. The sole course of the GSPDM offered through an e-Program is the Master in Public Management (http://www.dap.edu.ph/?page_id=34).	http://www.dap.edu.ph/ ?page_id=34

De La Salle University (DLSU)–Manila	The De La Salle University-Manila is using the Integrated Virtual Learning Environment (IVLE) as a supplementary tool for their classes.This use of ICT enables them to make their courses and course materials available online. Among the other features of IVLE is the creation of course calendars, forums, lecture plans, chat rooms, and can even serve as assignment repositories. It can also do as much as conduct online examinations and correct them as well. The IVLE was developed in collaboration with the National University of Singapore and was initially shared with the UP Open University (http://www.dlsu.edu.ph/academics/continuing/online_courses/default.asp).	http://www.dlsu.edu.ph /academics/continuing/ online_courses/default. asp
Asian Institute of Management (AIM)– World Bank Global Distance Learning Center	Asian Institute of Management (AIM) -World Bank Global Distance Learning Center is a member of the Global Development Learning Network (GDLN). It has facilities that enable "on-time and cost-effective information exchange, knowledge sharing, coordination, consultation, training,and dialogues to organizations, groups, teams and individuals that work to contribute to sustainable development and the reduction of poverty in the developing world".	http://www.worldbank. org.ph/WBSITE/EXTE RNAL/COUNTRIES/ EASTASIAPACIFICE XT/PHILIPPINESEXT N/0,,contentMDK:202 36598~menuPK:48890 5~pagePK:1497618~pi PK:217854~theSitePK: 332982,00.html
Department of Agriculture e-Extension Program	A major component of the DA e-Extension Program is the e-Learning for agriculture and fisheries. Agricultural Training Institute collaborates with other government agencies, universities and NGOs to provide e-Learning programs. The e-Extension Program offers five course categories. First, crop which is all about the production and management of crops. Second, livestock where pig is considered as an enterprise. Third, marine and fisheries which zeroes in on the production of the Tilapia fingerlings as well seaweeds. Fourth, social technology which instructs the learner in the areas of training management, human communication, as well as agricultural marketing. Finally, the e-Extension program offers digital technology and information kits (http://www.e-extension.gov.ph/elearning/course/index.php).	http://www.e-extension .gov.ph/elearning/cours e/index.php

These initiatives – even though rather distributed – show starting points for potential collaborations and development opportunities.

Recommendations

Gervacio (2012) has identified the following aspects as focus areas for future development and collaboration:

1) Integration of the concepts of e-Learning and Lifelong Learning as a public policy. There is a need to integrate these two concepts together and highlight the potentials and opportunities on the use of e-learning in lifelong learning. Although there are already policy pronouncements regarding these concepts, an e-learning policy for the Philippines will be relevant to lifelong learning. The policy should recognize that e-learning plays an important role in addressing the problems of the education system in the country. The policy should also allot a budget for the development of e-learning programs and for capacity building of regulators and implementers.

2) Regulation of e-learning for lifelong learning. The three regulatory agencies related to education are already in place. However, their role in regulating e-learning as a tool for lifelong learning should also be highlighted. The DepEd and TESDA not only regulate but also develop and implement e-learning programs, whereas the CHED is more focused on regulating the elearning programs delivered by higher education and institutions.

3) Capacity building for implementers. There is a need to orient the concerned agencies regarding the concepts of e-learning and lifelong learning. As regulators, they have to be continuously be updated with the recent developments in the field. A framework for capacity building on e-learning for lifelong learning should be put into place.

4) Quality Assurance. One of the major tasks of the regulatory agencies is to ensure quality in the e-learning courses being developed and implemented. Hence, it is important that a framework for quality assurance should be developed and implemented by the different regulatory agencies.

5) Use of Open Educational Resources. One of the prospects for e-learning for lifelong learning is the development and utilization of open educational resources. Again, the government should create a facility for the review and creation of open educational resources that can be used and shared by the learning community.

4.3 United Kingdom

Focus Areas and Topics

To understand research and development trends, it is quite useful to focus first of all on national collaborations. These identify priority topics and aim at providing benefits for the whole community across institutions in the UK. The national initiative JICS has focused on the following priority areas:

1) Course management: Specification, validation & description strand
2) Cross-Institutional Use of e-Learning to Support Lifelong Learners
3) Vision statement
4) e-Learning Frameworks and Tools programme: e-learning and pedagogy, technical frameworks and tools for e-learning, innovation, Distributed e-learning
5) e-Learning / Pedagogy programme: Designing for Learning and Understanding my Learning
6) HE in FE projects
7) Lifelong learning and workforce development
8) Strategic Content Alliance

Furthermore, nationwide initiatives provide a good idea on national priorities and instruments:

- Learn Direct aiming at educating adults without literacy and numeracy skills (around 2 million users)

- Open University aiming at providing course offers which range from short courses for those studying for the first time, through to postgraduate qualifications.

- National Extension College (NEC) providing offers to around 20,000 learners a year on over 100 home study courses

- Thus, a strong focus has been on national initiatives reaching all key target groups in education, in particular for adult learning using e-learning. However, with the current changes in the government and educational system with budget cuts, negative impact can be expected regarding inclusion and access to education.

Recommendations

Based on the experiences, the following recommendations were given (Jones, 2012):

1.	Create a table of comparisons for education for each nation from pre-school to basic adult learning to PhD and all the variations between.
2.	Discuss and agree a universal definition of 'lifelong learning'
3.	Discuss and agree a universal definition for e-learning
4.	Create a table of international benefits for e-learning for life long learning
5.	Create a simplified list of the best national level providers for e-learning for lifelong learning
6.	Create a simplified list of the leading case studies from the countries contributing to this white paper. This should include different levels or qualification levels and throughout the learning process from initial enquiry through to alumni and career support
7.	Decide on an area of specialisation for e-ASEM members to concentrate their attention on.
8.	Compile statistical analysis in this specialised area or areas that can be used as aninternational starting point.
9.	Create an international pamphlet combining the information agreed on above specialised area with recommendations on standardising the area.
10.	Agree on a country to champion the decisions of the group and to try and use official paper from recommendation 9.

These recommendations can be used as a starting point for further discussions at the e-ASEM conference.

4.4 Discussion

The key topics in the three countries and respective reports show similarities as well as different specializations. As already addressed in chapter 3, the level of centralization and participation as well as coverage / scope differs. In the UK, strong national initiatives have been built to focus efforts and address certain topics. In Latvia, also due to the size of the country, initiatives have been rather focused and reached a broad adoption rate. In the Philippines, many strong initiatives have been built, however, the rate of adoption and diffusion seems to have room for improvement.

As a conclusion, the topics differ according to a country's development status and to the specific needs of the education system. However, certain topics seem to be addressed in all countries. It might be useful to further discuss these topics as starting points for cross-country collaborations:

- **Cross-organizational networks**: This topic seems to be important as cost- and funding aspects become more and more important. It should be discussed which concepts of collaboration vs. competition can be implemented in each country
- **Open Educational Resources / Open Content** seems to play an important role for the same reason as above but also as a strong instrument for collaboration and creativity.
- **Standards and Frameworks** play an important role to ensure interoperability and enable networks and OER re-use.
- **Quality**: Even though very different approaches can be observed in the participating countries (e.g. central accreditation vs local quality management), quality is still an important, not fully solved concept.

- **Inclusion and accessibility**: social inclusion of people with different / special needs is a major challenge to increase societies' participation in the educational system. Providing accessible solutions is a clear pre-requisite in particular for target groups with special needs.
- **Providing educators' education / training**: To enable wide adoption and participation, it is highly necessary to provide solutions for educators, teachers, and educational professionals with adequate solutions.
- **Integrating e-learning in all forms of LLL**: Many efforts have been put on this aspect for specific areas, levels, and sectors. It is still essential to study the usefulness of different e-learning concepts (including blended learning, virtual classrooms, social software, and many many more) for different target groups and settings. This area includes pedagogical as well as technological aspects.

These areas should serve as a starting point for further discussions on potential collaborations.

Gaps and Open Issues

The current reports provide an in-depth insight into the educational systems and practices in the participating countries. They show clearly how policies, programs and systems work and provide clear recommendations for future actions.

However, one aspect seems to be missing in the analysis which is the aspect of **internationalization and collaboration across countries**. Especially European actors have a long tradition on cooperations / collaborations across Europe. In research as well as development initiatives and projects, relations have been developed, trust has been created, innovations have found their way into society. These previous collaboration experiences should be clearly analyzed as well as they show how solutions can be created in a common environment and how they can be transferred. Examples for this are to a certain extent shown in the Latvian report. However, also for example JISC is strongly involved in European projects and initiatives, so these experiences should and need to be shared.

Secondly, the reports address mainly success stories in their countries, of course, with a clear scientific skepticism. However, for future development and collaboration, we might consider also not-so-good practices: learning from experiences and failures might help us to avoid future failures and create better understanding of approaches, concepts and solutions.

As a last aspect, the reports address the current state of the art and status regarding e-learning and LLL. As a next step, it might be useful to discuss also high-risk, leading edge, **future topics**. The main question would be which topics and innovations will be emerging in the next decade and how can we arrange collaborations in these areas. Examples from a technology perspective would be coming innovations such as augmented reality learning scenarios, tele-presence or educational cloud-computing. It should be discussed which topics will emerge and will create educational innovation for the next generations. Here, strong collaboration opportunities will emerge as well.

Chapter 4 — Summary and Recommendations

This cross analysis has been done to summarize and compare the white papers on E-Learning for Lifelong Learning in Latvia, Philippines and United Kingdom. It can be stated that all three papers provide a comprehensive, in-depth analysis on the topic from the addressed countries. It is a challenging task to address and select the most relevant aspects. However, this comparison is just a starting point for comparing practices, exchanging knowledge and creating future opportunities and collaborations. The main findings were made in the two areas on policies and practices. As a starting point for future discussions, I would like to propose the following ten recommendations:

Policy Level

1. Create clear policies addressing different issues of LLL for all sectors / levels

2. Create clear policies for e-learning / ICT for education

3. Align and embed policies to overall policies (e.g. regarding knowledge society) and connect to international standards (such as European policies, EQF)

4. Align policies on an international level

Implementation level

5. National programs / agencies need to be implemented to achieve broad adoption

6. Stakeholders need to be involved in all sectors, levels and institutions

7. Cross-border collaborations in the e-ASEM countries should be established to identify core collaboration topics and assess / enable transferability

8. A variety of experiences have been made - good and bad practices should be disseminated to enable collaborations, avoiding mistakes and creating synergies.

Topic level

9. Create collaborations in the common topics areas: Cross-organizational networks, Open Educational Resources / Open Content, Standards and Frameworks, Quality, Inclusion and accessibility, Educators'education / training, Integrating e-learning in all forms of LLL

10. Identify current and future trends to create leading edge research and development projects in international collaborations

References

Birziņa, R., Gudakovska, I.,Maslo, I., Šitikovs, V., Mazurs, V., Bičevskis, J., Muraškovska, I. (2012): E-Learning for Lifelong Learning in Latvia, White Paper, 2012.

Department of Education (2009). Five-Year Information and Communication Technology for Education Strategic Plan (Draft DepED ICT4E Strategic Plan). Retrieved 23 August 2011 from http://www.deped.gov.ph/updates/ updates links.asp?id=567

Lapus, Jesli (2008). The Education System Facing the Challenges of the 21st Century, Country: Philippines, Department of Education. Presented on 25-28 November 2008 at Geneva, Switzerland.Retrieved 23 August 2011 from http://www.ibe.unesco.org/National_Reports/ICE_2008/philippines_NR08.pdf.

Gervacio, J.L.M. (2012): E-Learning for Lifelong Learning in the Philippines, White Paper, 2012.

Jones, S. (2012): E-Learning for Lifelong Learning in the UK, White Paper, 2012.

National Economic and Development Authority (2004). Medium Term Philippine Development Plan 2004-2010.

Pawlowski, J.M., Bick, M. (2012): The Global Knowledge Management Framework: Towards a Theory for Knowledge Management in Globally Distributed Settings, Electronic Journal of Knowledge Management, 2012.

Nine Country Reports
(Denmark, Latvia, Japan, Malaysia, Slovakia, South Korea, Philippines, Thailand, UK)

02

By:
OPEN UNIVERSITY MALAYSIA
Kuala Lumpur, Malaysia

Authors:
Dr. David Lim
Mr. Ng Man San
Ms. Tengku Amina Munira

Moderators:
Prof. Dr. Mansor Fadzil (mansor@oum.edu.my)
Prof. Dr. Latifah Abdol Latif (latifah@oum.edu.my)

Mansor Fadzil

Senior Vice President at Open University Malaysia

Professor Dr Mansor bin Fadzil, aged 55 years old, was born on 1 October 1957. He studied at College Sultan Abdul Hamid, Alor Star for his secondary education and in 1976, was offered a scholarship to study 'A'levels at Worthing College of Technology, United Kingdom. In 1978, he was offered a place to study Mechanical Engineering at the University of Birmingham, United Kingdom. He graduated with a Second Upper Bachelor of Science (Hons) degree in Mechanical Engineering in 1981.

Immediately after finishing his undergraduate studies, he enrolled for postgraduate studies under the scholarship provided by University of Malaya. He obtained his Masters in Control Systems Engineering and Ph.D. in Control System Engineering from University of Sheffield in 1982 and 1985 respectively.

In 1985, he returned to Malaysia to serve as a full-time lecturer at the Faculty of Engineering, University of Malaya. While at University of Malaya, he has held various administrative posts which include Head of CAD/CAM Unit, Director of Distance Learning Centre, Special Assistance to the Vice Chancellor and Director of Multimedia Development Centre. Dr Mansor was responsible for introducing online learning to the lecturers at University of Malaya in 1998.

In 1999, he was seconded to METEOR Distance Learning Sdn. Bhd. (MDLSB) as its Vice President. METEOR is a consortium of eleven (11) Malaysian public universities.

During his initial tenure at METEOR, Dr Mansor was responsible for negotiating the release of distance learning programs from UTM, UM and UUM to be managed by MDLSB. Subsequently, Professor Dr Mansor and his team were requested by the Chairman of METEOR, the late Tan Sri Dato Dr Hj Abdullah Sanusi Ahmad, to prepare the concept paper for the establishment of the nation's first and only open and distance learning university. In June 1999, the concept paper was submitted to the Ministry of Education. METEOR was invited to set up the Open University Malaysia (OUM) in August 1999.

OUM was officially established in August 2000 and registered in May 2001. Its first intake of about 750 students was in August 2000. Professor Dr Mansor opted for optional retirement from University of Malaya in September 2001 so as to join OUM on a full-time basis. He currently serves as the Senior Vice President at OUM.

Latifah Abdol Latif

Associate Professor of Open University Malaysia

Prof Dr. Latifah Abdol Latif is currently serving as the Dean, Faculty of Science and Technology, Open University Malaysia (OUM), after serving as the Director, Center for Student Management between 2003-2009. She joined OUM in 2002 after taking a break from her 22 years of service in the University of Malayaas an Assoc. Professor in the field of Organometallic Chemistry. She has written over 90 papers in various journals and conference proceedings during her tenure as a lecturer as well as the Director of Center for Student Management, OUM. Most of the publications are related to the professional field of Chemistry and student retention. As the Dean of Faculty of Science and Technology, her main focus is on developing relevant programmes for the working adults, and at the same time contributing to the nations continuous efforts in human capital development, particularly in the Science and Technology related areas.

Introduction

This cross analysis reports the current status of nine participating countries in planning, implementing and promoting e-learning for lifelong learning, as described in each country's respective e-ASEM Whitepaper. The nine countries are Denmark, Japan, Latvia, Malaysia, the Philippines, Slovakia, South Korea, Thailand and the United Kingdom (UK). This analysis also describes policies, legal, conceptual and practical issues that affect e-learning and lifelong learning in these nine countries. The main purpose of this cross analysis is to highlight the similarities and differences of the salient features that have been captured in each of the Whitepapers.

In the following sections, the broad education system of the nine countries is first compared to serve as a background to the analysis. This is followed by a comparative description of policies and concepts relating to e-learning for lifelong learning. Finally, the analysis highlights the status of e-learning for lifelong learning, some of the typical examples provided in each report as well as a summary of the recommendations made to further e-learning for lifelong learning. This comparison is illustrated with examples of relevant practices in these nine countries.

The nine countries of the e-ASEM Whitepapers represent an interesting portrait of Asia (Japan, Malaysia, the Philippines, South Korea and Thailand) and Europe (Denmark, Latvia, Slovakia and the UK). Of the Asian countries, three represent Southeast Asia and two are from East Asia. Each of the European samples represents a different region, i.e. the Baltic States, Britain, Central Europe and Scandinavia. In order to simplify this analysis and make sense of the comparisons, some of the following sections will group the nine countries according to their respective regions.

1   Education Systems

In all nine countries, two parallel conceptualisations of education exist. The first generally involves the formal education system which stretches from primary to tertiary education. The second is the lifelong learning system which provides educational opportunities to those who may not have completed formal education, especially beyond the secondary and tertiary levels; and for those who want to upgrade their academic qualifications or professional competencies and skills for the ultimate aim of improving their quality of life. Generally speaking, the lifelong learning systems of all nine sample countries involve three categories of education, i.e. formal, informal and non-formal education. All the participating countries also have separate mechanisms for early childhood education, special education, technical and vocational education and training (TVET), continuing and adult education. In some ways, they are a part of the lifelong learning system for these countries as well.

These two complementary systems are discussed in more detail in the following sections.

1.1   Formal Education System

The Southeast Asian sample countries, i.e. Malaysia, the Philippines and Thailand, share many similarities due to their geographical proximity, including climates, demographics, cultures, ethnic groups, religions, as well as socioeconomic statuses. Correspondingly, they share many educational similarities as well. As developing nations, the main educational objective revolves around improving literacy, eradicating poverty and enhancing employability of the people. Basic and/or compulsory education follows general international standards; whereby every individual is ex-

pected to complete up to 12 years of studying from kindergarten to secondary/high school.

Japan and South Korea, the a`dvanced countries of East Asia, have educational goals that can be considered to be more sophisticated – equal opportunity (Japan) and humanitarianism or *Hongik* (South Korea) are cited as the basis of educational philosophy. Both the Japanese and South Korean systems employ a 6-3-3-4 structure, and up to nine years are offered as tuition-free schooling. For all these countries, there are separate mechanisms for special education, TVET and higher education. This is a norm for the European countries as well.

Denmark's education system very clearly separates mainline education from adult education and continuing training. Like all European countries, its education system is based on the International Standard Classification of Education (ISCED) although some unique features exist, e.g. college education is free; an extensive system for youth education. Latvia, by reasons of history and culture alone, presents a fascinating case. As a country that has only recently re-declared its de facto independence from the Soviet Union (in 1991), Latvia has achieved remarkable progress to become one of the most developed Baltic States. Its education system is considerably highly developed as well, and is strongly embedded in European developments towards the European Qualifications Framework (EQF) as well as the ISCED.

Slovakia, also a highly developed nation, has a well-established education system based on its German and Dutch roots. The Slovak government has made long-term plans to transform its traditional schools into a modern school system. Like Japan and South Korea, Slovakia's educational goals have also progressed beyond literacy alone as the country has already achieved a 99% literacy rate. The UK perhaps represents one of the most traditional education systems that have been adopted by many of its colonial states (including Malaysia). That said, the UK system is experiencing developments due to the country's changing political environment. Education is free for those between the ages of five and 16 and the entire system is made up of compat-

ible and advancing levels. The UK education system is also highly structured and regulated by region-wide examination boards as well as qualifications and curriculum authorities.

As a summary, all nine participating countries demonstrate at least two similarities in their formal education systems. First, all nine countries have similar structures. The structures can be generally broken down into six years of primary education, three years of lower secondary education; two years of upper secondary/high school education; one to two years of post-secondary education; and three to four years of tertiary education. Another common feature is that this structure constitutes nine to 12 years of compulsory education. These two common features contribute to the larger goal of achieving universal literacy amongst the school-going age population and to prepare them with the necessary academic knowledge and skills to enter the labour market upon completing their studies. The more advanced countries have expressed more sophisticated educational goals that relate to the idea of the importance of lifelong learning.

1.2 Lifelong Learning System

Despite the fact that formal education can be considered universal in its reach, there are still many individuals who do not complete basic/compulsory education and need to acquire additional qualifications and skills after leaving the formal system. In addition, there is also a need for continuous professional improvement for working individuals already equipped with basic formal education. Others may be interested to acquire additional languages, ICT and other soft skills, in order for them to achieve better quality of life. For some countries like Japan, it is particularly important to provide learning opportunities for an elderly population in an ageing society as well. Japan is also concerned with the concept of equal opportunity; South Korea focuses on humanitarianism; while Denmark places importance on enlightenment and liberal

values. These are the rationales behind lifelong learning as an alternative or comple-mentary education system. While each country may have different national goals, all nine sample countries have put in place, to varying degrees, a lifelong learning system to complement the existing formal education system discussed above.

Depending on each respective cultural, social and economic backgrounds and require-ments, the level and emphasis of lifelong learning vary for each of the nine countries. In Denmark, a member of the European Union (EU), the lifelong learning system is well-organised and formalised. This is evident in that its national education system is characterised by two parallel formal systems – the mainstream formal education system discussed earlier, and the complementary adult education and/or continuing training system. The latter, which provides formal lifelong learning and training to adults, can be divided into vocationally oriented and general education, and liberal adult education (propagated through folk high schools, private evening schools, adult education associations, and other non-formal providers). While Denmark does not have a designated open university to encourage e-learning for lifelong learning (as in the case of Japan, Malaysia, the Philippines, South Korea, Thailand and the UK), e-learning in general and distance learning in particular are available in all Danish traditional universities to cater to working adults and others to pursue lifelong learning.

In Latvia, at the tertiary level, academic and professional higher education are sepa-rated, but this is not strictly institutionalised, i.e. higher education institutions can run both types of programmes, although only academic programmes can award aca-demic degrees. Like Denmark, adult education in Latvia is given separate focus and it is this that constitutes the major understanding of lifelong learning in the country. Adult education is monitored by the Latvian Adult Education Association and covers all formal, non-formal and informal education. Similarly in Slovakia, also a member of the EU, adult education is included as another level in its formal education system, and is considered a form of lifelong learning. Lifelong learning is acknowledged as crucial for developing a knowledge-based society. The government, therefore,

adopts a mission to promote lifelong learning by providing easier access to education, recognition of new qualifications and promoting employment throughout the entire lives of citizens. Apart from improving the nation's labour productivity and competitiveness, another influencing factor for promoting lifelong learning in Slovakia is to equip its citizens with the appropriate qualifications, competencies and skills required for labour mobility within the EU in search of jobs and education. However, Slovakia does not yet have a national strategy for e-learning, particularly as a specific feature in lifelong learning. Like Denmark, both Latvia and Slovakia do not have a designated open university. However, e-learning and distance learning are available in their traditional universities as well.

The understanding of lifelong learning in the UK is different according to each local region, although collectively, the Learning and Skills Act (enacted in 2000 and enforced throughout the UK) is tasked with providing academic and vocational training to 16 to 19 year-olds as well as vocational training, professional education, workplace training, second-chance general education and informal education to adults older than 19. In general, adult and continuing education are both state-run (by the Learning and Skills Council) and complemented by a voluntary body (the Workers' Educational Association). There are many ways in which non-traditional students can seek non-formal and informal learning opportunities, e.g. through adult and community learning, learndirect, adult education institutions and professional institutions. The UK's Open University is potentially the most well-known of the world's open and distance learning (ODL) institutions; having been established in 1969 and enrolled more than 1.6 million students so far.

In South Korea, lifelong learning is provided by Air and Correspondence High Schools. These are affiliated with public high schools around the country to provide learning opportunities via broadcast and communication distance classes, offline classes and personal feedback from tutors. The vision of these Air and Correspondence High Schools is to develop a cyber lifelong learning system that can offer e-learning to anyone, anywhere and at any time. Lifelong learning lessons

are also provided by South Korea's only distance learning university, Korea National Open University (KNOU) through television and multimedia lectures, web-based lectures and interactive distance video lectures and there are also private cyber universities that conduct courses via the internet. Finally, South Korea also has a Credit Bank System (CBS) that allows conferment of Bachelor's degrees to those who have high school diplomas or who are recognised to have the same academic capacity as high school graduates. Lifelong learning is considered important for continuous improvement of productivity of the nation's labour force. To individuals, lifelong learning is seen as a means to improve employability and income.

In Japan, the education system differs slightly from other countries, whereby Japan has specialised training colleges and miscellaneous schools to cater to the lifelong learning society; in particular, the ageing society. These institutions offer practical education and training in various fields that are considered useful for performing a wide range of social, cultural, sports, recreational and volunteer work, and cultivating interests in hobbies and other related activities. Another unique aspect is the notion of libraries and museums as lifelong learning facilities where Japanese people can enhance their knowledge. As such, Japan has incorporated library and museum policies to encourage lifelong learning activities in an ageing society. Japan, like South Korea, has set up its own ODL institution, i.e. Open University of Japan (OUJ) as an avenue for working adults to enhance their qualifications for better employability and income.

Malaysia too has a lifelong learning system that runs parallel to the national formal education system, albeit it is still at a stage that requires further enhancement and integration. Community colleges are considered important as lifelong learning hubs for the country, and 43 have been set up since 2000 as an alternative avenue for secondary school leavers to further their education. Private distance learning institutions and public universities have also been established to provide higher education to working adults and many others who have missed their chance to pursue higher education. One of the most prominent institutions to have stated its mission

as such is Open University Malaysia (OUM) – the country's first ODL institution. Informal activities organised by non-governmental organisations (NGOs) have also contributed to improving the people's quality of life. Despite all these initiatives and activities, lifelong learning has not been fully integrated and formalised in Malaysia.

Thailand's lifelong learning development is very similar to Malaysia. However, unlike Malaysia, Thailand has established a Cyber University which uses ICT for delivering courses to their students. In addition to the Cyber University, Thailand has also established two open universities that are open to both high school graduates and working individuals. At present, the lifelong learning environment in the Philippines is still nascent, and has only recently been introduced as part of the alternative education system. Much of the current lifelong learning approaches are still being delivered in a traditional manner, as the country is still very focused on the importance of formal education to alleviate poverty amongst its people. The Philippine Education for All 2015 Plan intends to separate the formal and alternative education systems; both of which are considered as lifelong learning. However, the Philippines has already established institutions that offer ODL and e-learning, the most prominent of which is the University of the Philippines Open University.

1.3 e-Learning for Lifelong Learning

e-Learning is generally seen as the use of ICT and the internet for learning. Most of the sample countries indicate that e-learning is a tool for education. Whether or not it is used for lifelong learning has not been discussed in great detail. As part of the formal education system, reports by Japan, Malaysia, South Korea, the Philippines, Thailand and the UK all made references to their local open universities and ODL institutions as e-learning practitioners; unlike Denmark, Latvia or Slovakia. In the case of the former, e-learning is seen in a broad sense as any type of teaching

and learning that involves ICT, whilst e-learning is still a new phenomenon for the latter. The South Korean report is the only one that comments on the relationship between e-learning and lifelong learning in its country; whereby the concurrent development of both has been central to what it has been able to achieve at a national level. Whatever the case may be, each of the sample countries appears to have some form of e-learning that is readily available for lifelong learning.

2. Concepts of e-Learning for Lifelong Learning

The participating countries report a lack of national or official definition for e-learning for lifelong learning. Instead, the two concepts are described separately.

2.1 Concept of Lifelong Learning

Of the nine participating countries, only Japan, Latvia, the Philippines, South Korea and the UK provide definitions for lifelong learning. South Korea defines lifelong education (learning) as "*the omnipresent system supporting the learning activities of anyone serving his/her interests anytime, anywhere*". In addition, South Korea's revised Lifelong Education Act (2008) defines lifelong education as "*organized educational activities taking place outside school*". This means that legally speaking, lifelong education (learning) does not occur within school premises. The South Korean concept of lifelong learning also calls for recognition of prior learning (RPL) and gives credit for learning experiences that are considered equivalent to the level of higher education. In this context, lifelong learning in South Korea has included

the CBS which allows conferment of Bachelor's degrees to those who have such equivalent knowledge.

In Japan, the Ministry of Education, Culture, Sports, Science and Technology (or MEXT) defines lifelong learning as "*any kind of learning which citizens involve in throughout their lifetime in order to pursue their realization of lifelong learning society*". The term "lifelong learning society" is used to refer to a society where people can freely choose learning opportunities and learn at any time throughout their lives, and receive proper recognition for their learning achievements. Hence, the concept of lifelong learning as applied in Japan covers a wide range of activities which includes school, home or social education, cultural, sports, recreational and volunteer activities, corporate training, hobbies and learning opportunities in other areas.

The Philippine understanding of lifelong learning is broad, i.e. "*lifelong learning is a learning progression beginning at birth and ending only with death which encompasses both the formal and alternative learning systems*". The Philippines' lifelong learning focus revolves around the idea of complementing the formal education system with learning opportunities that can lead the Philippine people towards employment, social participation and integration as well as self-actualisation.

Of the two European countries with national definitions for lifelong learning, the UK provides greater variation, as each region has its own understanding of the concept. Some of the main points raised are "*skills, knowledge, attitudes and behaviours that people acquire in their day-to-day experiences*" (Scotland); and "*the achievement of social justice, ensuring economic productivity and meeting the challenges of new technology*" (Wales). The UK Department of Education defines lifelong learning as "*an important part of government policy. Informal learning is seen as one way to remove barriers and widen participation in learning*".

Latvia's Lifelong Learning Policy for 2007 - 2013 defines lifelong learning as "*an*

education process during the whole life of an individual, that is based on changing needs to acquire education, skills, experience in order to increase or change their qualification in accordance with the demands of the labour market and own interests and needs. Lifelong learning comprises non-formal learning and formal education, develops inborn abilities together with new competences." As iterated earlier, lifelong learning in Latvia is strongly tied to adult education, which is defined by the Law of Education as "*a multi-dimensional educational process of persons, which, ensures the development of the individual and his or her ability to compete in the employment market, during the course of a lifetime of a person*". Latvians are expected to engage in lifelong learning as a means to achieve humanistic and economical benefits, as well as to contribute to national sustainable development.

The other four countries namely, Denmark, Malaysia, Slovakia and Thailand have no clear definition of lifelong learning. A good idea of lifelong learning in these four countries, however, can be inferred from each respective description of practices and activities, as well as from documents released by their governments and non-governmental agencies. In Malaysia, there are several Government documents that make references to the concept and practices of lifelong learning. One of these documents is the National Higher Education Strategic Plan (NHESP), which describes lifelong learning as *"… a process for the democratization of education through the acquisition of knowledge, skills and competencies via formal, informal or non-formal means based on workplace, experiences or training*". The NHESP also notes that lifelong learning is integral to support Malaysia's human capital development and the nation's knowledge and innovation-based economy. In addition, various other lifelong learning activities are carried out by NGOs in the country. Based on these references and examples, lifelong learning in Malaysia is understood to be characterised as comprising formal, informal and non-formal learning in support of the following objectives: development of human capital, a knowledge and innovation-based economy, improvement of individuals' employability and personal development and quality of life. Finally, the concept of RPL, similar to the South Korean model, and the Accreditation of Prior Experiential Learning (APEL) are considered vital elements that make up

a successful system of formal lifelong learning in Malaysia. At the moment, Malaysia has six operational ODL institutions that are approved to implement the RPL system. The Malaysian Qualifications Agency (MQA) is awaiting endorsement of the APEL by the Ministry of Higher Education so as to allow for full implementation.

Like Malaysia, Thailand does not include a definition of lifelong learning. However, it reports that lifelong learning was introduced in the National Education Act of 1999 as a guiding principle for Thai education to ensure economic competitiveness and sustainable development. It also reports that the Government considers lifelong learning as the foundation for a knowledge-based society which will lead to sustainable development in the country. From these official reports, lifelong learning in Thailand can be interpreted as a vehicle to achieve the objectives of developing human capital and a knowledge-based economy. Unlike Malaysia, there is no mention of improving individuals' quality of life and employability.

The European Commission defines lifelong learning as "*all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competence, within a personal, civic, social and employment perspective*". It can be assumed that Denmark and Slovakia, both members of the EU, are agreeable to this definition. Lifelong learning in Denmark covers "*all phases and forms of learning from pre-school to post-retirement, in the support of the objectives of personal fulfilment, active citizenship, social inclusion and employability, improving knowledge, skills and competence*". Hence, the idea of lifelong learning in Denmark appears very similar to that of Malaysia. However, the striking difference is that the Danish concept also stresses on the role of active citizenship which is conspicuously absent in the lifelong learning concepts of Malaysia and Thailand.

In Slovakia, the development of lifelong learning is influenced among others, by the "*establishment of conditions for equal and constant access of citizens to acquire new and renewed skills which are necessary for participation in a knowledge-based society*". More importantly, the development of lifelong learning is influenced by

the country's policy to encourage and assist mobility of its citizens within the EU in search of jobs and education.

2.2 Concept of e-Learning

Among the nine nations, South Korea stands unique in its effort to formulate the concept of e-learning. Thus, e-learning in South Korea is mainly discussed in the context of educational technology instead of learning per se. Therefore, its concern is technology-oriented; for example, it is concerned with "*how to design e-learning contents effectively or virtual learning interface efficiently*". South Korea defines e-learning as "*a purposeful learning process through the internet in which the latest innovations in education are utilized*".

For the remaining eight countries, e-learning is generally understood as learning through the use of ICT and the internet; or all forms of teaching and learning where ICT is involved. For example, e-learning in Malaysia is clearly considered as one of the means of using ICT to foster lifelong learning. In addition, e-learning is believed to be an effective alternative approach to traditional classroom teaching in schools and institutions of higher learning. Based on this concept, e-learning initiatives have taken the form of projects such as MySchoolNet, Smart Schools, Computing Tablet, Computerisation programmes and EduWebTV at the school-level, and learning management systems, mainly in open universities and ODL institutions.

In Thailand, e-learning is defined as online learning via the internet. It is self-paced learning in which learners can study within their own capacities and interests. Learning content consists of text messages, pictures, audio, video and other media delivered via web browsers. Teachers and students can communicate via electronic tools such as e-mails, web-boards and chat rooms.

In Japan, e-learning refers to "*electronic learning which utilises computers and net-works*". e-Learning was introduced as a substitute for all or part of classroom education. Within the formal system, using ICT in blended teaching and learning approaches is considered as e-learning. Asynchronous forms of online learning and computer-assisted training programmes in informal education are also considered e-learning. Japan sees both types of usage as a comprehensive concept of e-learning.

In Denmark, e-learning is used as a general term covering all forms of teaching and learning where ICT is involved. e-Learning covers teaching at a distance through the internet, and all kinds of ICT-supported educational activities such as those for self-study, face-to-face teaching, on-the-job training or net-based interaction in an online course.

Like Denmark, e-learning in Latvia, Slovakia and the UK refers to teaching and learning through the use of ICT and the internet. A broad description provided by the UK's government website, Directgov, also a common understanding in Latvia and Slovakia, is that "*e-learning makes use of ICT to provide innovative ways to learn*". However, for Slovakia, there is no national strategy for e-learning and the range of e-learning activities is generally not well developed. It should be noted that when speaking of e-learning, both Latvia and the UK also directly referred to distance education and/or e-education. Although it does not have a uniform system to monitor and coordinate e-learning, Latvia considers distance learning, blended learning, online/virtual and web-based learning to encompass the total concept of e-learning. Its Lifelong Learning Policy for 2007-2013 states e-education as "*a specially organised study course in which the following information and communication technologies are used in a methodically grounded way – telecommunication and computer networks, multimedia CD-ROM, as well as radio and TV broadcasting, audio/video records, interactive TV and other technologies*".

3 Policies, Regulation and Funding of e-Learning in Lifelong Learning

Because each country looks at lifelong learning and e-learning differently, policies, guidelines and strategies are likely to follow different paths and given separate emphasis as well. For developing countries, e-Learning policies are likely to focus on improving ICT infrastructure, widening technological access and improving the people's technological literacy. On the other hand, more advanced countries are likely to have larger goals, such as developing pedagogical approaches to leverage on ICT. The same goes for lifelong learning; where a country's current environment and circumstances are an integral factor to developing the relevant policies and procedures.

3.1 Policies

It is evident that none of the nine sample countries have developed individual policies on e-learning *for* lifelong learning. Rather, it is common for policies that mention e-learning and lifelong learning separately to be established under the broader themes of education, ICT and/or social advancement. The introduction of lifelong learning in policy documents is a recent development for most of these countries, occurring around 1999 to 2002. For the Philippines, lifelong learning was only introduced into policy documents as recently as 2009 (The Philippine Education for All 2015 Plan). The availability of policies also varies – some of the sample countries, like Malaysia, the Philippines, Slovakia and Thailand, do not appear to have detailed policies yet; however, South Korea has laid extensive foundations since 2002 and is already carrying out its second promotional plan for lifelong learning in that country.

The different levels of implementation of the available policies are attributable to each respective country's national agenda/concepts, as well as its economic status. For example, Malaysia, the Philippines and Thailand are predominantly concerned with lifelong learning as a means for increasing national productivity and employability; hence, their policies have a tendency to address lifelong learning as a means to encourage human capital development and create a knowledge-based workforce. Nothing concrete has yet to be developed by the Philippines, although its TVET policy does propose a lifelong learning "ladderised" interface to link TVET with tertiary education – similar to the system for linking learning pathways in the Malaysian Qualifications Framework. Latvia focuses its attention to creating an information society – reflected in its National Development Plan (2007-2013) and particularly in the Informatics Programme, through which extensive ICT-based projects are currently being carried out. Latvia's concerns concur with Malaysia's as well, perhaps indicating the universal circumstance of countries where e-learning and lifelong learning are still very nascent. On the other hand, the policies of Denmark and Japan reflect their individual interest in the holistic social development of their citizens. Japan includes library and museum policies in its lifelong learning initiative; as these represent important social education facilities in that country; while Danish strategies encompass every level of learning, from preschool to adult and continuing education as well as liberal (non-formal) education.

In the context of e-learning policies, each country appears to focus on ICT development, its use in education and its role in fostering e-learning. In general, these policies focus on the provision of ICT infrastructure and promoting the use of ICT in each country. South Korea approaches e-learning as a section under higher education and vocational training and has established comprehensive strategies to address various aspects of e-learning, e.g. establishing a development plan, promotion system, standardisation and cultivation of a professional workforce through e-learning. At the end of its report, South Korea extends some recommendations for further policies to make e-learning more effective in lifelong learning programmes, e.g. in the promotion of greater interactivity and multi-way communication, better electronic networks and

co-operation within government agencies and with other countries. The policies of Japan, Malaysia, Thailand and the UK refer to a general e-learning/ICT utilisation in education as a tool for lifelong learning, or just learning in general. Again, the Philippines has yet to come up with specific policies on e-learning, although its medium-term development plan indicates that the integration of lifelong learning into the education system is currently in progress.

As stated earlier, the idea of lifelong learning and e-learning in Latvia is strongly connected to the building of an information society. As such, Latvia has extensive policies that address this specific aim, as well as several others for the development of electronic study resources, education information system, raising the ICT competence of teaching staff and upgrading and maintenance of ICT infrastructure in education. Slovakia has only recently given focus to e-learning, although its interpretation appears similar to the other sample countries. Denmark provides the only distinctive notion of ICT usage – albeit it is considered important to boost the ICT capacity of its people; it is not expressly included in the Danish strategy for lifelong learning.

3.2 Legislation

Without definitive policies, most of the sample countries have not implemented any exclusive legislation on e-learning for lifelong learning. Japan and South Korea are the only countries to have successfully legislated lifelong learning (i.e. the Lifelong Learning Promotion Law and Lifelong Education Act, respectively) alongside various other acts that *affect* e-learning and lifelong learning, i.e. those involving higher education, vocational training and financial sources for lifelong learning. In 2009, Slovakia approved its act and law on lifelong learning; this law replaces the legislation for further education.

Because there are no exclusive laws for e-learning or lifelong learning in Denmark, Latvia, Malaysia, the Philippines, Thailand or the UK, they are indirectly governed by legislation in education, higher education, social education and other related themes, e.g. legislation that controls the establishment of higher education institutions and the offering of their programmes (including those of lifelong learning nature) in Malaysia; and those that control activities in adult and non-formal education in Denmark. In the Philippines, different aspects or levels of the education system are handled by different government agencies, but again, no specific legislation exists as yet. Like the UK, Denmark, Latvia and Slovakia are bound by European policies and standards, particularly, the ISCED and the EQF – perhaps representing a more regulated and systematic regional approach to education in general. Frequently, legislation also outlines the roles of relevant ministries and government agencies. Several unique acts are also present, e.g. Japan's library and museum laws and Slovakia's Trade Act that allows its citizens to obtain trade licences for craftwork (that can be used as professional qualifications).

3.3 Regulation

The information on regulation, particularly for e-learning, is quite scarce. Again, only South Korea appears to have made progress in this particular regard. Its e-Learning Industry Development Act provides legal support for various aspects of e-learning, even in areas such as standardisation and certification. In Malaysia, the single regulatory body that deals with quality assurance (QA) and accreditation for higher educational institutions is also responsible for systematically linking different qualifications and properly accrediting prior experiential learning; thus indirectly involved in the regulation of formal lifelong learning activities. Japan's lifelong learning regulation is implied in its Support for Learning policy. This policy describes a credit certification system for adult education programmes, a 'job card' system for individuals who need to leverage on their vocational skills and evaluation guidelines for various

proficiency tests. Under its Law of School Education (2007), short programmes offered by universities and colleges are also given certification.

The UK stands unique in its clear focus on centralised accreditation. Non-governmental and professional agencies are involved in lifelong learning through the region-wide Learning and Skills Act. The UK's success in enforcing accreditation standards throughout the British countries is partly why its education system is so well-respected in international circles. Although not extensively discussed in the Whitepapers, both the ISCED and the EQF play critical roles in regulating and quality assuring education in the EU. The European Commission released its guide on the EQF's role in lifelong learning in 2008. As the overarching framework for all national frameworks in Europe, the EQF promotes a European framework to link qualifications in order to encourage geographical and labour market mobility as well as lifelong learning. In fact, the EQF has served as the basis for Latvia's qualifications framework, which was recently introduced in 2011.

For the other countries, there is indication that specific regulation for lifelong learning will be considered in the future. For instance, the Thailand Cyber University has included accreditation and regulation as the third phase in its 12-year operational plan. Currently, Thailand has already implemented a broad credit transfer system even between different types of education. Otherwise, it is clear that most have yet to implement any explicit regulation for lifelong learning. Any accreditation or QA procedure is also still under the control of education, higher education and/or training sectors.

3.4 Funding

The sample countries report multiple sources for financing lifelong learning and e-learning programmes. Many also discuss financing that is derived through national

education and training budgets, as well as through payroll taxes and employer contribution (especially for professional, on-the-job training). Countries that anchor lifelong learning to national productivity also allocate funds for vocational training and corporate e-learning, e.g. Malaysia, the Philippines and South Korea. South Korea has also enacted legislation for obtaining finances for its Employment Insurance Fund, which is the major contributor for all lifelong learning programmes in the country. Slovakia reports that it receives assistance from one of the EU's structural funds, i.e. the European Social Fund (ESF). As members of the EU, this is highly likely for Denmark, Latvia and the UK as well, although it is not stated if there is any such regional fund for the five Asian countries. Additionally, since 2001 the Danish Ministry of Education has launched various funding programmes under "ICT and Media in the Public School" to support the move from "*learning to use ICT*" to "*using ICT to learn*". With state-of-the-art ICT facilities and large funds for various areas of e-learning, it is unsurprising that Denmark is considered to have the best capacity to leverage on ICT for social and economic development.

In the UK specifically, individuals as well as institutes can apply for funding to support educational projects from the Joint Information Systems Committee (JISC), which itself was established by higher education funding bodies in all British countries. Several other organisations, e.g. learndirect, are also given government funding. Thus, learndirect (which offers many of its courses online) is able to conduct many of its courses for free.

Informal lifelong learning is generally funded through foundations, donations and other such personal means that are not derived from government allocation. An advanced country like Denmark has also provided funds for producing digital resources for teaching and learning in schools and for developing digital educational materials for use in museums and art galleries. Slovakia is particularly concerned with consolidating its funds and incorporating this system into its lifelong learning legislation.

Funding for e-learning generally refers to provision for ICT infrastructure develop-

ment in schools or other educational settings, e.g. supplying hardware and internet/broadband connection. This is a common thread across all nine countries; the only difference being the level of ICT development in each country.

4 Status and Characteristics of e-Learning for Lifelong Learning

One of the key observations from analysing the nine Whitepapers is the varying states and levels of e-learning readiness and penetration. e-Learning in the developed countries of South Korea, Japan, the UK and Denmark has progressed several stages ahead of the developing countries of Malaysia, the Philippines and Thailand. In a sense, this is not surprising, considering that the former countries are, by virtue of their economic strength; better able to afford the high costs of setting up and maintaining the necessary infra- and info-structures that enable e-learning to take place. However, the country reports also indicate that the status of a country's economic development does not necessarily determine the pace of its e-learning development. e-Learning in contemporary Slovakia, for instance, has had limited development and impact on lifelong learning, despite the country's high-income advanced economy. Latvia presents an interesting case – with its recently restored independence, Latvian telecommunications have been liberalised, and this in turn has impacted the country's digital development and its perspective on the importance of ICT in education. Remarkable development has been attained in the last 20 years alone with its wide-reaching Informatics programme and advanced ICT infrastructure that is well on its way to achieve European averages.

Collectively, the country reports indicate that, while funding for the development

of e-learning is crucial, what is just as important, if not more so, are such factors as the absence/presence of clear and growth-fostering government policies on e-learning and lifelong-learning, the level of national support, coordination and funding provided by state agencies or governing bodies, the strength of cooperation between private and public sectors, the breadth and depth to which the culture of lifelong learning has become ingrained in society, and the proportion of popular mindshare that e-learning has managed to stake a claim.

Of the nine countries, South Korea, which has one of the highest internet penetration rates in the world, is by far the most successful in mobilising e-learning for lifelong learning. Through national-level support, e-learning has enjoyed significant growth since 2000 with the introduction of a comprehensive series of legislation, policies and plans to promote e-learning and lifelong learning as a means of enhancing the country's competitive strength as a knowledge-based society.

Japan, too, has promulgated various legislation and national plans, as well as produced policy reports on the subject, albeit, as it would appear, without the same degree of comprehensiveness and popular acceptance as South Korea. Japan's country report notes that, largely as a result of the government's push, e-learning has been adopted and widely used by universities. It notes also that there is clear recognition in the country of the potential benefits of e-learning, as attested by the various government initiated measures that have been taken to expand the use of ICT in education. Japan has been described as being in "a large-scale transition period", where e-learning is gradually overcoming various spatial and temporal obstacles that have traditionally prevented the masses from partaking in various educational opportunities.

While e-learning in Japan is expected to grow and diversify beyond the mere use of ICT in learning to involve organisational, technical and pedagogical dimensions, South Korea has already actively applied e-learning for the most part, if not on full scale, on all levels, including elementary, middle and high schools, traditional and cyber universities, and continuing education (including vocational training, teacher

training and public service training).

Against the foregoing background, Denmark, with its well developed digital infrastructure, makes an interesting case for comparison. Denmark does not have a separate open university that runs programmes in e-learning or blended mode, like the rest of the sample countries, since e-learning is "*a responsibility of all [Danish] universities to develop as part of their general educational offers*." Notwithstanding, Denmark already has in place a national strategy for e-learning which aims to increase the usage and quality of e-learning in the country. In terms of e-readiness, it is has been ranked as the country with the highest score in potentially transforming digital opportunities into social and economic development. Use of the internet for continuing education by adult learners is on the increase, as is e-learning for staff training by enterprises. The same upward trend is evident also in the Danish schooling system, although, as the country report highlights, the knowledge sharing ICT systems are used primarily for administrative use and to supplement conventional teaching-learning, rather than for active sharing of knowledge among teachers and between teachers, learner and parents. Another interesting aspect of e-learning highlighted in the Danish country report is that, in the area of non-formal adult education, particularly in personal development and general democratic education, distance learning or fully online learning are of no immediate interest to many schools and associations. This is due mainly to the mode in which such types of courses are typically run; that is, they require learners to physically attend meetings and to live with other learners for a certain period. As well, legal restrictions apply to some school types which prohibit some courses from running across municipalities.

Despite the relatively advanced penetration of e-learning in lifelong learning in South Korea, Japan and Denmark, there remain formidable challenges to be addressed. Some of these challenges appear unique to some countries, while others are shared in varying degrees across all sample countries. Duplication of efforts by the government and the private sector in providing e-learning to elementary, middle and high school students represent an area identified as requiring optimisation in South Korea. Another

area requiring redress concerns the proliferation of South Korean cyber (or private distance) universities at a time when there is reportedly decreasing national demand for tertiary-level education. The worry is that this phenomenon may cause an over-supply of higher education and threaten the very survival of existing universities in South Korea. Concerns have also been voiced about the quality of learning and other ethical issues related to the provision of e-learning by cyber universities in general.

Aside from these, two other issues have been identified in the South Korean country report. The first relates to the yet to be realised objective of developing an international e-learning network to leverage on the global applicability of the internet. At present, e-learning in South Korea, although already well developed, remains constrained within national boundaries, in part due to language barrier. The second concerns the persistence of the "old tradition" of teaching and learning, namely rote learning, which is widely considered to be incompatible with e-learning. (Within the dominant constructivist paradigm, e-learning requires learners to go beyond passive memorisation to active co-construction of knowledge through two-way interaction with peers and/or instructors.) This too is an area of concern highlighted in the Danish country report, which notes that teachers' expectations from young learners may be "rather traditional" and insufficiently flexible to capitalise on collaborative learning. The Danish report also highlights the need for Denmark to step up efforts to utilise e-learning not simply as an ICT project but more importantly as a pedagogic and didactic experience.

Some of the aforementioned challenges confronting developed economies such as South Korea and Denmark are also shared by the other sample countries. Malaysia, for instance, too faces the problem of some duplication of efforts in part due to the lack of immediately tangible incentives to collaborate and the lack of comprehensive national-level coordination of e-learning development. While Malaysia has adopted some initial policies to support the growth of e-learning in the country, state agencies and the few parties that have actively promoted e-learning in the context

of lifelong learning have yet to successfully coordinate their efforts in any significant degree to avoid duplication of each other's work and to maximise the limited resources at their disposal. Malaysia's report underscores that the country is currently in the 'embedding' stage and has a long way to go to ensure a holistic enculturation of e-learning in lifelong learning. Its utilisation of e-learning is limited to the formal level; as well, there is a clear need for more funding and strategies to encourage more players and practitioners to enter the field and to make e-learning more cost effective. It has also yet to establish something akin to South Korea's CBS which allows learners to accumulate credits for the knowledge, skills and competencies gained previously through non-formal means.

Nonetheless, despite these gaps, Malaysia has progressed a considerable distance in making available more e-learning opportunities for Malaysians to continually upgrade their knowledge and skills. Implementation of e-learning has been more active at the higher education level, as compared to the school level, although, in the latter case, a series of initiatives have been launched to deepen and widen the utilisation of ICT in education. The Malaysian country report also highlights for-profit e-learning in the corporate training sector which, although still a relatively new phenomenon, has the potential to help accelerate employee development.

Likewise, e-learning in Thailand, while yet to reach its full potential or to approximate the gains already made in South Korea, is nonetheless recognised as a means of expanding educational opportunities for the people. The Thai country report states that Thailand already has in place "clear policy supporting the expansion" of lifelong learning supported by e-learning. It places the country at what might be discerned as the embedding stage, where focus is placed primarily on establishing the networks and partnerships necessary for the provision of e-learning that leverages on the sharing of learning resources and avoids wasteful duplication of efforts. Available literature outside the country report reveals also that an array of international partnerships has been forged to advance e-learning penetration in Thailand. Among these partnerships are with Microsoft (Partners in Learning), Intel, Japan International Cooperation

Agency, UNESCO, and UNICEF.

The Philippines perhaps has the most catching up to do, particularly in implementing e-learning specifically for lifelong learning. At present, institutions offering programmes and courses via e-learning can be said to encompass traditional/formal education only; and most of the government-based initiatives tend to focus on developing basic ICT skills. Despite the presence of several institutions that have created considerable impact through ODL (like Malaysia), the extent to which e-learning has benefited lifelong learning (beyond formal education) requires further investigation. Much still needs to be done for lifelong learning to be successfully cultivated as an alternative learning path in the Philippine Education for All 2015 Plan.

Of the other three European countries involved in these Whitepapers, i.e. Latvia, Slovakia and the UK, the latter provides the more traditional and conventional approach towards e-learning. British politics and the Browne report (delivered in 2010) are two factors that have greatly influenced the current education environment in the UK, specifically, in terms of reduction of funding and subsidies. The Open University has played an important role in the UK education dynamics, as it has become a popular alternative for higher education. The e-learning component in this case is clear, as the Open University delivers its programmes via ODL. Other forms of education that have benefited from e-learning include both non-formal and informal examples, e.g. basic skills (learndirect). Latvia makes for a more contemporary example and provides extensive evidence of the initiatives made towards greater use of ICT in education for the purpose of improving digital literacy. Various instances where e-learning has been assimilated into traditional education are given, e.g. upgrading of in-service teachers, development of study materials, education information systems and hardware in schools, e-learning in vocational schools and the TVET context as well as distance education centres. Integrating e-learning into higher education is in progress, but a blended pedagogy (leveraging on ICT) is already commonly practised. e-Learning in non-formal and informal forms is also applied, particularly for training job seekers and the unemployed (a programme under the ESF).

Of the nine country reports, Slovakia's is arguably the most candidly revealing of the situation on the ground. First, though, it needs to be qualified that the many challenges facing Slovakia with respect to education in general, and lifelong learning and e-learning in particular, are not all entirely unique to the country. Concerns over the quality and adequacy of national education to meet the demands of the labour market in a globalised world, for instance, are shared by many more countries than the nine sampled here. What is unique about the Slovakian country report is the sobering admittance that the Slovakia's education system has in the last decades been insufficiently responsive to the changing world. As well, it would appear that Slovakia has the biggest gap to bridge in terms of e-learning readiness and penetration. At present, according to the report, not only is there an absence of a national strategy for the development of e-learning in the context of lifelong learning in Slovakia, there is also still no official recommendation by the Ministry of Education to include e-learning as a standard tool in the education system. Among other things, this has had a discouraging effect on school directors and teachers who, perhaps due to the lack of incentive, are reluctant to include e-learning in the teaching process. e-Learning in Slovakia is increasingly becoming accepted in specific subjects offered in some universities. Even then, its utilisation at the university level is patchy at best. It is limited mainly in urban areas where broadband internet is available and where most universities are situated. e-Learning in the corporate sector is employed primarily by big companies with foreign capital or major domestic IT companies. The majority of small and medium enterprises do not use e-learning, while in the public sector, the situation differs between central and local state administrations. The Slovakian country report highlights several areas requiring urgent redress – areas which the other five sample countries too have identified, if not already addressed. Legislation and national coordination of e-learning development are required, as are support, funding, and a policy advisory committee.

Typical cases of e-Learning for lifelong learning

How each country utilises e-learning in lifelong learning contexts is as unique as its understanding of the concepts. As has been reported in the earlier sections of this analysis, the most evolved forms of e-learning for lifelong learning appears to be Japan and South Korea, followed by Denmark and the UK. Latvia, Malaysia, the Philippines, Slovakia and Thailand are similar in terms of their focus on creating greater ICT awareness, improving ICT infrastructure in schools and finding alternative pathways to higher education — all are basic and fundamental building blocks if they are to expand both e-learning and lifelong learning in the sphere of national education.

In particular, Japan and South Korea have been able to establish various initiatives in lifelong learning that quite clearly utilise e-learning. Both countries have designated open universities (i.e. the OUJ and KNOU, respectively) that deliver programmes through distance learning. To this day, OUJ employs a blended mode that incorporates television and radio programmes to supplement print materials and face-to-face interaction. While many other open universities have moved on to web-based content and delivery, OUJ continues to produce broadcast material, which is now in high definition digital formats. Two fascinating explanations behind this is that many OUJ students are in the older age bracket; and that there is a persistent perception that broadcasted instruction has an authentic and credible air. Japan has also initiated a Japan Opencourseware Consortium (JOCW) and NPO CCC-TIES consortium to share learning resources over the internet. Any distribution and exchange of content among universities and corporations is strictly facilitated by the Accreditation Council for Practical Abilities (ACPA), a member of the International Network for Quality Assurance Agencies in Higher Education (INQAAHE). The MEXT has played a major role in driving e-learning implementation across various sections of Japanese

society.

South Korea shares many similar milestones with Japan. Its open university, KNOU, also started by using broadcasted instruction but this has now been mostly replaced by web-based delivery. The uses of e-learning for lifelong learning in South Korea are diverse and widespread, no doubt a consequence of the country's well-established policies and legislative environment on lifelong learning. South Korea has been able to incorporate e-learning at all levels of study, from non-degree to degree levels and from preschool, K12, undergraduate degree and finally, to graduate education as well. Like Japan, e-learning has been applied in various contexts, including training for civil servants, military personnel and the 'socially alienated'. Additionally, South Korea's CBS is one of the most outstanding examples of an organised approach towards systematic lifelong learning – no other sample country has established any-thing similar. The exhaustive scope of the South Korean system is certainly one to be lauded.

The European sample countries of Denmark, Latvia, Slovakia and the UK exhibit different approaches towards e-learning for lifelong learning; perhaps a reflection of the various factors that have been discussed in these Whitepapers (e.g. concept, educational philosophy, ICT infrastructure, availability of policies, regulation, legis-lation and funding). As discussed in the previous sections, Denmark's highly ad-vanced ICT environment has proven that it is not the only crucial factor needed to boost e-learning for lifelong learning. Awareness, acceptance and acculturation of the concept of lifelong learning play an important role too. The Danish report provides two cases where e-learning has been used in formal education and in in-formal situations. The former is similar to many other academic programmes delivered via ODL as it employs a blended pedagogy that uses online workspaces, video confer-encing and other online communication tools. However, it appears that e-learning has been best utilised in informal settings. Like Japan, the role of museums and science centres in encouraging learning is considered important; and much has been done to include some form of digital/electronic component to their collections as

well as to how these are disseminated to the public.

Despite lacking a national strategy for e-learning for lifelong learning, Slovakia has managed to implement e-learning in various ways. Most commonly, companies and training institutions have used e-learning to train employees. However, the opportunity for unemployed and physically disadvantaged people is still not forthcoming as digital literacy remains a problem. That said, there are numerous examples where e-learning has been successfully integrated, from the conventional use in schools, universities, administrative processes to a school unique to voluntary rescue services. The DIVES programme (from 2005 to 2007) is similar to the UK's learndirect, where people of all backgrounds can enrol into free courses to upgrade their knowledge and look for jobs. Like several of the other sample countries, Latvia has implemented some e-learning-based programmes at formal and informal levels. The University of Latvia has experimented with offering a joint Master's programme with several other European universities utilising a blended pedagogy. Similar to the Malaysian MyGfL project, the Latvian government launched Uzdevumi.lv – a web portal with various study resources targeted at school-going children. In the UK, there are numerous learning opportunities for continuing education outside its extensive formal education system. Examples of the use of technology (e-learning) in the latter include basic skills (learndirect), post-compulsory education (the Open University) and post-graduate education (University of London).

For the developing countries of Malaysia, the Philippines and Thailand, e-learning for lifelong learning mainly encompass rather basic initiatives outside the formal academic programmes offered by open universities and ODL institutions. ICT awareness 'campaigns' and basic skills courses like the eBario Project of Sarawak (Malaysia) and the eSkwela Project (the Philippines) are to be expected in an environment where neither e-learning nor lifelong learning has been fully acculturated. Thailand's concern with using technology to enhance the efficiency and effectiveness of teaching and learning is reflected in the Thailand Cyber University (TCU) project, which aims to spearhead educational reforms in Thailand as well as to bring together all of the

nation's universities and higher education institutions in a collaborative, knowl-edge-sharing network.

Chapter 6 Recommendations and prospects

There is no doubt that all the nine countries recognise the importance of lifelong learning in complementing existing formal education systems for greater national productivity, employability and improved quality of life. All nine sample countries, too, recognise the importance of using ICT more broadly in education as well as for improving access to educational opportunities and for better utilisation of e-learn-ing in lifelong learning endeavours. Some, like Slovakia and the UK, are wise to heed that ICT is not an end, but the means towards creating opportunities for develop-ment and for better prospects in lifelong learning. As such, it is worthwhile to note that the development of e-learning for lifelong learning varies between the sample countries; with South Korea, Denmark and Japan ahead of Latvia, Malaysia, the Philippines, Slovakia, Thailand and the UK in terms of conceptualisation, im-plementation and progress.

While it is universal for lifelong learning objectives to include meeting national goals like productivity, employability as well as social needs for improved quality of life, there are clear contrasts in its emphasis as reflected in the given policies, funding and implementation. For example, Japan emphasises on meeting social needs for an ageing society; South Korea and Latvia give marked consideration to the human dimension; and Denmark is concerned not only with filling in gaps in the labour force, but also with the broader social context of lifelong learning for self-fulfilment. The other sample countries have more basic goals, such as productivity, employability and competitiveness, before they can move on to more sophisticated aims. These

differences mark individual concerns and cultural features that are unique to each country, and they of course have had great bearing on educational priorities that directly address lifelong learning and e-learning or at the very least, influence them on a national scale.

While the reports have highlighted the current stage of e-learning for lifelong learning in the respective countries, they also point to many weak areas and missing gaps that need to be strengthened and closed. It is these areas that provide the basis for future direction of developing better systems and features that can be more specific to e-learning for lifelong learning. Each country faces a different set of challenges to overcome that are openly acknowledged or at least, intimated in these reports. The comprehensive list of recommendations that have closed each report can certainly serve as input for developing the roadmap to improve e-learning for lifelong learning in the respective countries. The reports collectively are also a snapshot of e-learning and lifelong learning practices in each sample country; and can certainly serve as an introductory study to the avid reader.

The following table is a summarised guide to the recommendations and key points as described in the Whitepapers by each of the sample countries. This matrix may be helpful in identifying how each sample country uniquely looks at its own experience in exploring and implementing e-learning and/for lifelong learning. The recommendations thus relate to the country's experience, current status, concept, philosophy and environment. Any exclusion does not point to a lacking in the part of any country or its government, rather, the list merely sketches the key concerns that each country considers important in furthering e-learning for lifelong learning in the present day. For instance, the Latvia report does not indicate a need to define e-learning or lifelong learning as it appears to be already at ease with its current concept of economic and humanistic importance. The only necessary point to note is that recommendations from the UK report relate to the international context, i.e. in the effort towards creating a global community of policy sharers for e-learning in lifelong learning. In addition to the recommendations provided in the table, the UK report provides other

suggestions, including identifying the best national provider, creating an international pamphlet under e-ASEM and nominating one country to champion the cause of e-learning for lifelong learning.

Table 1-1 A Summarised Matrix of Recommendations from Each Sample Country

	Denmark	Japan	Latvia	Malaysia	The Philippines	Slovakia	South Korea	Thailand	The Uk
Establish definitions for e-learning and lifelong learning	–	–	–	✓	✓	–	–	–	✓*
Establish the relevant policies	–	–	–	✓	✓	✓	–	–	✓*
Establish the relevant legislation	–	–	–	✓	✓	✓	–	–	–
Establish the relevant regulatory & quality assurance mechanisms	–	–	✓	✓	✓	–	–	–	–
Establish sources & systems for funds	–	–	–	✓	✓	–	–	–	–
Establish standards & frameworks for various aspects of e-learning and/for lifelong learning	–	–	–	✓	✓	–	–	–	–
Build/improve ICT infrastructure	–	✓	✓	✓	–	✓	–	–	–
Improve access & inclusion (especially disadvantaged groups)	–	✓	✓	✓	–	✓	–	–	–
Establish national agency/committee to oversee e-learning and/for lifelong learning	–	–	–	✓	–	✓	–	–	–
Improve/strengthen local coordination	–	–	–	✓	–	✓	–	✓	–
Promote/improve awareness for e-learning and lifelong learning	–	–	–	✓	–	✓	–	–	–
Conduct more research on e-learning for lifelong learning	–	✓	–	✓	–	–	–	–	–
Build capacity of implementers (teachers, course developers, experts)	✓	–	–	✓	✓	✓	–	–	–

	Denmark	Japan	Latvia	Malaysia	The Philippines	Slovakia	South Korea	Thailand	The Uk
Take a learner-centred approach	✓	✓	–	–	–	–	✓	–	–
Design new pedagogical and didactical approaches	✓	–	–	–	–	✓	–	–	–
Customise teaching & learning processes; acknowledge various learning styles & characteristics	–	✓	–	–	–	–	✓	–	–
Encourage collaborative learning, content development & knowledge sharing between stakeholders & between learners	✓	✓	–	–	–	–	✓	–	–
Personalise learning content	–	–	–	–	–	–	✓	–	–
Include/develop Open Educational Resources	–	–	–	–	✓	–	–	–	–
Provide greater focus to TVET	–	✓	–	–	–	–	✓	–	–
Address security issues (authentication & content)	–	–	–	–	–	✓	–	–	–
Benchmark against other countries	–	–	–	–	–	–	✓	–	✓∗
Create national/international content database/repository	–	–	✓	✓	–	✓	–	–	–
Rejuvenate national educational philosophy	–	–	–	–	–	–	✓	–	–
Create international network & global community	–	–	–	–	–	–	✓	–	✓∗

NB: * indicates recommendations at an international level

References

Nine Whitepapers on e-Learning for Lifelong Learning, prepared by Denmark, Japan, Malaysia, Slovakia, South Korea and Thailand (2010); and Latvia, the Philippines and the United Kingdom (2011).

European Society of Association Education (2005). *What is Lifelong Learning? The View from the European Commission.* Accessed November 10, 2010, from http://www.esae.org/articles/2007_08_005.pdf

Han, S. (2001). Creating Systems for Lifelong Learning in Asia. *Asia Pacific Education Review, 2*(2), pp. 85-95.

Tao, W., Cheng, J., Dong, W., & Wang, J. (2009). East Asia Lifelong Learning Community 2020: Objective, Organization and Operation. *Transition Studies Review, 16*, pp. 252-268.