ERASMUS+
KA 2 - Cooperation for innivation
and exchanges of good practices
Capacity Building in Higher Education
Joint Project

Co-funded by the
Erasmus+ Programme
of the European Union

Master in SMArt transport and logistics for cities SMALOG

MODERN EUROPEAN METHODS OF STUDENTS' TRAINING

GENERAL GUIDE 2021

The Manual is designed in the framework of the Erasmus+ KA2: CBHE Project
585832-EPP-1-2017-1-IT-EPPKA2-CBHE-JP
"Master in SMArt transport and LOGistics for cities" (SMALOG) (2017-2021)

The Project SMALOG is co-funded by the Erasmus+ Programme of the European Union

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Co-funded by the
Erasmus+ Programme
of the European Union

National peculiarities of Ukrainian and Georgian higher educational systems, evaluation systems analysis and methodologies are described. The Bologna Process profile in EU countries is revealed. European ECTS system is examined, using advanced methods and approaches for students training.

International mobility and studying/traineeships outcome recognition, distance learning implementation features and innovative European teaching methods are described. Higher education development perspectives in Europe, Ukraine and Georgia are outlined.

For teachers, students and higher educational institutions staff.

Acknowledgement

The authors gratefully acknowledge colleagues from each institution participating in SmaLog with whom almost all topics covered in this report were discussed over the Project development.

The authors are thankful to the editors and the reviewers for their suggestions which were most useful in revising the report.

The activity leading to these results has received funding from the European Community's Erasmus+, under grant agreement 585832-EPP-1-2017-1-IT-EPPKA2-CBHE-JP.

CONTENT

THE SHORTENINGS LIST

ACWP	Academic Course Working Program
BFUG	Bologna Follow-Up Group
BL	Blended Learning
DS	Diploma Supplement
DL	Distance Learning
ECHE	Erasmus Charter for Higher Education
ECTS	European Credit Transfer System
EHEA	the European Higher Education Area
ESG	the Standards and Guidelines for Quality Assurance in the European Higher Education Area
EQF	European Qualifications Frameworks
HEI	Higher Educational Institution
HES	higher education system
HL	Hybrid Learning
LA	Learning Agreement
LLL	Lifelong Learning
LO	Learning Outcomes
MTM	Modern Teaching Methods
NARICs	The National Academic Recognition Information Centres
NQF	National Qualifications Framework
OL	Online Learning
QA	Quality Assurance
QF-EHEA	Qualifications Framework for the European Higher Education Area
SCL	Student-Centred Learning
TCL	Teacher-Centred Learning

INTRODUCTION

Since the Bologna Process initiation, Ukraine and Georgia have carefully studied the reasons for its introduction and development prospects. A number of national conferences concluded that the Bologna Process is a pan-European project aiming at improvement of the national educational systems efficiency, strengthening their relationship with the immediate needs of society and increasing the higher education contribution to economic and innovative development. Moreover, the Bologna Process creates a new environment in terms of its characteristics and capabilities for pan-European communication, provides new perspectives for dialogue and cooperation in the widest range. That is why the academic communities, the Ministry of Education and Science of Ukraine and the Ministry of Education, Science, Culture and Sport of Georgia decided to join the Bologna Process.

As the EU develops, the European society increasingly began to think about the need to establish closer ties between the EU Member States in order to strengthen their intellectual, cultural, social, scientific and technological potential. With the unified social and cultural space creation, the role of education and cooperation in this area also increases significantly.

The Bologna meeting participants have undertaken a commitment to form a common European space for higher education and increase the European higher education system (HES) prestige on the world stage in a relatively short period (until 2010). For this purpose, the following measures have been suggested:

1. To create systems of clear and comparable academic degrees by a European-style Diploma Supplement (DS) introduction. This step facilitates not only the growth in European citizens` employment, but also the international competitiveness of European higher education in general. The DS template is used in more than 40 countries and provides a complete description of the subject, level and content of the training received. The DS contains 8 sections providing information regarding: the holder of the qualification; the qualification type and its originating institution; the qualification level; the content of the course and results gained; function of the qualification; certification of the supplement; details of the national HES concerned (provided by the National Academic Recognition Information Centers (NARICs)); other relevant details.

2. To develop a multilevel training system: a Bachelor (BSc), Master (MSc), post-graduate and a postdoctoral student. Access to the next cycle assumes the successful completion of the previous one. The first cycle (BSc) duration is at least 3 years. Degrees awarded after the first cycle must meet the qualification requirements of the European labor market. Upon the second and the third cycle completion, MSc and doctoral degrees are respectively awarded.

3. To introduce a Credit System comparable with ECTS (the European Credit Transfer System), ensuring transparency, mastered course content comparability and the possibility of academic qualifications and competencies recognition. This will contribute to the continuous increase in student mobility. Students should be able to acquire knowledge and receive such credits in various higher education institutions in Europe, including organizations outside the higher educational institutions system (lifelong education in particular) subject to the recognition by the respective universities.

4. To ensure effective students` and teachers` mobility in the European space. Students must have all learning opportunities and have access to all relevant services. Teachers, researchers and administrative staff are ensured to participate in pan-European research and training without prejudice to their rights.

Due to the European cooperation, such areas as the development of work assessment criteria and methods, the programs creation and educational institutions cooperation, the development of mobility schemes and integrated training programs, training and research programs will be developed.

1. UNIVERSAL EDUCATIONAL SETTING

1.1. Bologna process and its implementation principles

In 1988, the rectors of universities from EU member states and associated countries signed the Magna Charta Universitatum in Bologna. As the document was signed by the academic community members only, it had no political dimension and differed in nature from documents in the later framework of the Bologna Process. Magna Charta Universitatum emphasized the role of the university as a guardian of values and stressed the importance of freedom to pursue academic research. As stated, "its research and teaching must be independent of all political authority and economic power". Characterized as autotelic and conducted along the principle of autonomy, research and teaching was to serve the public; issues related to building a knowledge-based economy were not included in the document. Also, what was recognized as one of the main concerns of the university was the responsibility for the preservation and development of the European humanist tradition.

In order to understand the changes taking place in European higher education, it is worth introducing and explaining the origins of the Bologna Declaration and the ensuing set of higher education reforms referred to as the Bologna Process. The basic principles of the Bologna process stem from the Joint Declaration on Harmonization of the Architecture of the European Higher Education, signed in May, 1998 at the Sorbonne in Paris by the education ministers of four countries: France, Germany, Italy and the United Kingdom. The Sorbonne Declaration focused on improving international transparency and comparability of studies, including the recognition of qualifications through the introduction of a common qualifications framework and consistent study levels. It also aimed to promote the mobility of students and teachers across Europe and their integration into the European labor market, and addressed the issue of creating a common system of titles and degrees for undergraduate and graduate cycles (respectively BSc degree and MSc and doctor's degree).

An important point of departure for considering changes taking place in higher education was the Bologna Declaration, signed by the ministers responsible for higher education from twenty-nine countries on 19 June 1999. The document provided the Bologna Process with the initial sense of direction. At that stage, the final form, in which the HEIs were to operate at the level of associated countries, was not specified. The idea was to be developed with each subsequent meeting at the ministerial level to include additional goals. The Bologna Declaration became the founding document used by the signatory states to establish the general framework for the European higher education modernization and reform.

In later documents, subsequent reforms in higher education came to be referred to as the Bologna Process. In the Bologna Declaration, the ministers committed their countries to introduce changes in their educational systems with a view to attaining the following objectives:

−easily readable and comparable degrees system adoption;

−adoption of a system essentially based on two main cycles (undergraduate and graduate);

−establishment of a European credits system based on the student workload required to achieve the course outcomes (ECTS) as a means of accumulation and transfer of credits;

− promotion of staff and student mobility;

−cooperation in QA;

−promotion of the European dimension in higher education.

The progress of the implementation of the Bologna Process recommendations is regularly monitored at conferences of ministers responsible for higher education meeting every two years concluding with a "communiqué" summarizing of the achievements and further action defining. Originally, the principal objective of the Bologna Process was to create the European Higher Education Area (EHEA) by 2010. Once this aim was accomplished, the agenda of the process has been

broadened to include such goals as the current development of National Qualifications Frameworks (NQF) compatible with the overarching Framework for Qualifications of the European Higher Education Area (FQ-EHEA) as a means to increase mobility.

The most important documents defining the area of the Bologna Process influence are declarations and "communiqués" signed by the ministers responsible for higher education. The number of countries is steadily increasing, from twenty-nine in 1999 to forty-six in 2013, and so is the number of tasks. In the Prague Communiqué (2001), the ministers added new elements: promotion of lifelong learning (LLL), cooperation with HEIs and students and promotion of the EHEA attractiveness in Europe and around the world. The Berlin Communiqué (2003) assessed the progress made so far and stressed the significance of a link between higher education and research. In this context, it was considered important that the two-cycle study system should be modified to include the doctoral level as the third cycle. The Bergen Conference (2005) set the priorities for the Bologna Process for the following years: the development of doctoral studies and linking higher education with research. It also stressed the social dimension of the Bologna Process involving access to studies for students from socially disadvantaged groups and removing obstacles to student and staff mobility.

One of the postulates was to develop mechanisms, which would enable comparing the equivalence of skills acquired by students and their educational achievement, with European Qualifications Frameworks (EQFO and NQF as tools for this goal implementation. The London Communiqué (2007) assessed the level of achievement of the previously set objectives and stressed the need for implementation of the new approach to education focused on student needs and learning outcomes. The conference in Leuven and Louvain-la-Neuve (2009) re-emphasized the social dimension of higher education (providing equal opportunities for education and adequate conditions for the completion of studies), links among HEIs and the labor market, between education and research and innovation, and increasing students and staff mobility. Another issue addressed was the need to create databases in order to efficiently monitor progress made in the areas of mobility, social dimension and employability, as well as to provide the basis for stocktaking and benchmarking (including HEIs classification and ranking). 2010 saw the EHEA officially launched at the Budapest and Vienna Conference. In Bucharest (2012), providing quality higher education in order to enhance employability of graduates and strengthening mobility for better learning were identified as important elements of further action.

The Bologna Process: Major stages

Conference of ministers responsible for higher education	**Declaration/ communiqué date**	**Number of countries participating on the conference**	**Priority action**
Bologna	19 June 1999	29	- adoption of a system of easily readable and comparable degrees through the DS implementation - adoption of a HES based on two/three main cycles, -establishment of a European system of credits (ECTS) - promotion of student, teachers, researchers and administrative staff mobility - promotion of a European dimension in higher education, particularly with regard to curricular development, mobility schemes and integrated programmes of study, training and research
Prague	19 May 2001	33	New elements: - LLL promotion - stress on involvement of HEIs and students - promotion of the attractiveness of the EHEA in Europe and other parts of the world
Berlin	19 September 2003	40	New elements, including: - modification of the two-cycle study system to include the doctoral level as the third cycle - development of interdisciplinary education

Bergen	19-20 May 2005	45	Priorities: - intensification of links between education and research e.g. by improving cooperation between the higher education sector and other research sectors - increasing access to studies for students from all social groups, including those in difficult financial and economic situation - removing obstacles to student and staff mobility
London	18 May 2007	46	Further action focused on: - removing obstacles to student and staff mobility - securing equal access to studies - improving employability of graduates of the three-cycle degree system - promoting the principles of the Bologna Process in other regions of the world
Leuven and Louvain-la-Neuve	28-29 April 2009	47	Further aims and priorities: - providing equal opportunities for education and adequate conditions for the completion of studies - developing LLL, with a particular focus on the development of NQF - promoting employability of graduates and links between HEIs and labour market - empowering students in the educational process and in the process of curricular reform of higher education - internationalization of studies - guaranteeing funding
Budapest and Vienna	12 March 2010	47	Official launch of the EHEA and an assessment of the first decade of the Bologna Process
Bucharest	26-27 April 2012	47	Main priorities: - providing quality higher education for all - enhancing employability of graduates - strengthening mobility

So far, the strategic objectives adopted in the Bologna Declaration have been implemented in most EHEA countries. An assessment of the process prior to 2010 was provided in a report Higher Education in Europe 2009: Developments in the Bologna Process and the latest data are included in the EHEA in 2012: Bologna Process Implementation Report. Both of them were based on data from the Eurostat, Eurostudent project and Eurydice network and were supervised by the Bologna Follow-Up Group (BFUG). The 2012 report reveals that the European HES have transformed as set out in the Bologna Process principles. It has been observed that a high proportion of students continue their education having completed their first cycle with BSc degree (or its equivalent). In view of the fact that some countries still do not recognize the BSc degree as a professional qualification, it is suggested that further action should be taken to transform the traditional system towards a system based on LO. Although practically all countries have established external systems of quality assurance (QA), their agencies greatly differ in their purpose and approach: while the majority of them are primarily supervisory, some of them have only an advisory role. Furthermore, the systems of QA still require greater involvement on the part of students, academic staff and employers. It is worth noting that despite the development of the European Quality Assurance Register, many countries still do not allow their HEIs to be evaluated by foreign agencies.

Another point of evaluation of the Bologna Process considers the LLL implementation. Although most countries have recognized this idea as one of their priorities and modified their study offer accordingly, the level of implementation is considerably different, owing to such factors as the level of financing available for the purpose.

New aims and objectives defined after 2010 can prove to be more difficult to implement than the previous ones. They include such elements as the introduction of flexible learning pathways, learning in the work environment and recognition of non-formal education and informal learning, which are a part of the European Qualifications Framework for Lifelong Learning (EQF-LLL), mostly related to the field of vocational training. Another strategic task is to adjust the educational sector to the needs of the labor market. A significant number of countries have not yet taken all the steps to modernize their

system of vocational training in accordance with the new guidelines. As indicated in the materials made available so far, it can be assumed that HEIs will have a considerable level of autonomy in shaping their validation schemes (for example, the validation of qualifications by one HEI can be autonomously accepted or rejected by another institution actually admitting the student).

In their activity related to the Bologna Process, the ministers responsible for higher education are assisted by three official-level groups which supervise work, facilitate communication and assist in the decision-making process: the BFUG (established in 2003 and responsible for planning and implementation of activity stemming from ministerial decisions), the Bologna Process Board (supervising the activity of BFUG and responsible for action between BFUG meetings) and the Bologna Secretariat (supporting the work of BFUG and providing information about the Bologna Process).

Apart from states, the process also includes the European Commission as a full member, the Council of Europe and UNESCO-CEPES (European Centre for Higher Education) as consultative members, and a range of stakeholder organization also as consultative members. In this way, there is full and active partnership with HEIs, represented by the European University Association (EUA) and EURASHE, students, represented by the European Students' Union (ESU), academics represented by Education International (EI) and other stakeholder organizations such as the European Association for Quality Assurance in Higher Education (ENQA) and Business Europe representing employer organizations.

Since the Bologna Process is an inter-governmental process of higher education reform within the EHEA, the European Commission has become involved as a full member, increasingly important due to the level of its financial contribution. This is related to the development of the European Research Area (ERA) and to the fact that the Bologna Process is a tool in the implementation of the Lisbon Strategy. According to some specialists, the role of the European Commission has grown so considerably that the Bologna Process has become subordinated to the Lisbon Strategy, particularly to the measures adopted to ensure economic growth and increasing employment. It is also Europe 2020, a new European strategy to replace its Lisbon predecessor that emphasizes the so-called smart growth, based on investments in education, research and innovation, as the main source of economic growth as such. This comes as an indication of a further increase in expectations from the higher education sector.

1.2. Higher education in developed countries. Its specific features

The lack of necessary specialties, low education, consciences, the lake of sciences and technologies are the most important problems in developing countries. The high percentage of developing countries' population does not access to the education while the first step for the society's development is the specialty and skill. Hence, it is necessary for states to prepare the plans for education development, consciousness raising and technical professional skills development. States put into operation the skillful and creative humanistic forces to develop economic, social, cultural and political aspects of societies through education. Under the care of tolerance and relation among the cultures, universities, and thinkers; international cooperation is the effective element to promote the essential consciousness and to educate the living skills in national, regional and international levels in order to improve the quality of life in contemporary age. That guides all people to improve their quality of life and provide the deep realization from cultures and civilizations. These days, people face a number of difficulties. They have the national roots. In spite of their national roots, they are soluble internationally. On the other hand, these difficulties have been globalized and they have their own international effects. So, commitment, knowledge, international constructive approaches are necessary

to remove and decrease the difficulties such as international conflicts, poverty of developing countries, environmental risks, increase of population demanding the consciousness and constructive approach.

Therefore, it becomes possible due to knowledge and bilateral realization of cultures, civilizations, economic, political and social conditions of nations. Nowadays, people and nations future are interconnected. Institutions should attempt to create essential opportunities to empower individual abilities, living skills and native cultures. However, is necessary for a human to think for increasing of his/her abilities in all fields with the integrative approach. This factor is very important, because of political, economic, cultural and social reasons. Developing countries should pay attention to the role of Universities relying on two approaches. Present time, with the interdependent economy, financial systems and moving toward the more integration in political and geographical spheres of Universities; they function differently and their roles of guide them toward internationalization. In this condition, the Universities perform by making a progress in the aspect of intercultural knowledge, cultural values, research skills, scientific thinking and grouping action development of learning and teaching process beyond the borders.

The fulfilment of internationalization demands tolerance and cooperation of internationalization in activities, educational and scientific plans to generate science in the world and the more important – scientific spirit and tolerance affection. Informatics and communicative technologies accelerate these effects and increase their complexities. Present information world is represented by the removal of the excising difficulties in geographical spheres having positive international effects and, meanwhile, feeling the necessity of the bilateral realization among cultures. It awakes the cultural scientific tolerance and the increasing international understanding being the most important factors for popularizing the economic, scientific cooperation, multi and bilateral investments, cultures bilateral knowledge and cooperation. These factors are also effective in decreasing peaceful life difficulties and providing each other with experiences in informatics and communicative word. Based on these problems, paying attention to the understanding, knowledge, dialogue, nation's tolerance are the important activities. Specially, at the beginning of this process, deep knowledge, cultures bilateral realization, cooperation, political and economic exchanges and international bilateral and multilateral cooperation are effective for research, educational, scientific and cultural affairs. In spite of all the problems, it is worth developing necessary dialogue managing skills, rationality acceptance, creative thinking, potential participation, grouping action, tolerance of each other, critique acceptability, tolerance of each other theories and scientific approach to the affairs acceptability of natural, rational consequences of their own behaviours. Accordingly, higher education internationalization prerequisites in developing countries are the following:

1. to take heed that we are humans, in spite of culture, geography and regional policies;
2. to encourage to deepen knowledge, the rest of cultures realization and affirming bilateral respect;
3. to ensure achievement of the necessary skill for the constrictive tolerance, learning from others and the necessity of permanent learning the realization;
4. to ensure better recognition of world problems aligned with national and regional problems;
5. to show patience and tolerance accompanied with flexibility facing various cultural affairs;
6. to develop a constructive approach by developing countries toward the international problem;
7. to have responsibility in the regional and international projects and make an attempt to effectively execute them.

As far as nowadays, the informatics and communicative technologies outlive the past ironic borders; developing countries` University education should be based on the international cooperation progress. It ensures the possibility of bilateral knowledge and tolerance helping in learning the future, managing international cooperation and recognizing problems on national, regional and global levels. As a result, higher education of the bigger part of the world will start generating science.

In political and international texts, internationalization and globalizations are closely interconnected. Sometimes they are vaguely applied, because some believe that internationalization results in globalization when others are assured that the process of globalization becomes active and the internationalization of institutions and different higher educational institutions will be possible. Hence, these two notions are correlated. The process of internationalization, in particular, ensures higher educational institutions' active participation in educational programs, research activities and studies in the framework of educational reforms, challenges, opportunities and consequences of higher education international and national upheavals all over the world. Involvement into different educational and research programs is of prior importance for the internationalization of education focused on cooperation and tolerance, affirming cooperation but for unification. The recognition of such an important point of view is basic for planning and essential programs execution with the aim of HEIs internationalization development. Some of the most important plans, programs and the practical alternatives of internationalization of higher education in developing countries originated from the global experience are as follow:

A: the revision of textbook programs and representation of courses with the content based on global community knowledge and international problems;

B: the development of humanistic resources for the acceptance of social, economic and cultural consequences of Universities internationalization;

C: the provision of scientific and cultural cooperation programs by student unions and members of HEIs' scientific boards;

D: the use from the comparative studies methods for the existing studying programs' content presentation;

E: the planning of Universities studies affirming the inter-cultural skills combination ally;

F: the students' acquaintance with the abilities and the activity skills on the international arena;

G: the opportunities arrangement with the aim of achieving two studying degree from national, regional or other different international Universities;

H: the planning of special textbooks for foreign students;

I: the increasing of HEIs' importance resulting in effective and international scientific cooperation;

J: the enrichment of university environments for running educational and research activities with the acceptable standards;

K: educational programs updating in cooperation with different regional and foreign HEIs;

L: admission of a bigger number of researchers, scientific boards and foreign students during educational periods;

M: the support provided by researchers, scientific boards and young higher education coordinators;

N: the effective cooperation in the scopes of planning and the international projects implementation;

O: the facilities preparation in order to acquaint the scientific boards with the new technologies;

P: the exercise of international scientific cooperation on national and regional levels;

Q: the preparation of a common database and the development of effective relations among Universities, prevention from any time-wasting and the better use from the existing capitals in the field of higher education;

R: the required preparation on the managerial level with the aim of achieving positive outcomes toward higher education internationalization;

S: the necessary arrangements toward the internationalization of higher education;

T: the development of international and regional cooperation to qualify the educational programs.

The duties of developing countries in internationalization of higher educational process

As far as these days educational process at Universities and higher educational institutions is known for the following aspects: communication information, combinational approach, internationalization and inter-cultural dialogue. The globalization process renews the roles and responsibilities, so that the Universities of developing countries could revise their duties and challenges. Then, they should move the internationalization of international scientific cooperation to the different educational and research levels with the practical programs included. Otherwise, the globalization process will impose the inexperienced crisis on Universities by serving the communicative and informatics technologies. Developing countries should pay attention to the roles and HEIs' duties to prevent them from facing predictable crisis and foster them to find solutions to some existing difficulties in affecting the higher education like:

1) their presence in regional and international communities in order to internationalize the higher education;

2) higher education mobility to attract more volunteers;

3) the improvement of higher education quality through effective cooperation among HEI' in scopes of student, researcher, professor exchanges, information sharing, educational reform programs performance, cooperation in the joint research projects, database use, assessment models planning, improvement of capability measuring experiences, defining effectiveness of University education;

4) the higher educational institutions economization and HEIs' scientific cooperation;

5) using and doing the science and knowledge;

6) awareness of serious weaknesses of economic approaches in higher education and paying attention to humanistic values;

7) the approach change of the scientists towards the new technologies especially the internationalization of HEIs. The information and communication technologies have more impact on HEIs' performance, helping HEIs with textbooks programs, content, management and structure in order to coordinate the time upheavals. It promotes the information and communication technologies, student activity, improves the quality of higher education, increases self-awareness and stimulates researchers perform their activities.

The communication and information technologies ensure high researchers' performance. These days, due to communication and information technologies scientists don't need to know the modern program-writing languages, thus, they should follow the principles and the basis of the new learning approaches. In spite of a great number of volunteers to enter HEIs, information and communication technologies together with the new education tools affect greatly the learning continuation. It stimulates the effective use of the gained knowledge, skills and bolsters the adults' view improvement. It also decreases the cultural gap among social generations, preventing from digital gaps on international and national levels such as: the cultural social, economic. The information and communication technologies ensure effective studying opportunities and admission capability of HEIs.

The changing world provides new opportunities and challenges in the field of higher education sector in the 21st century. The higher education is facing challenges pointing at the importance of tracking new developments relating to international dimension as well. The challenges of higher education in developing countries originate from the states' vision of education. In fact, these difficulties refer to the economic, social and cultural problems. For example, the lack of financial facilities, a great number of applicants entering a HEI, admission limits set up by HEIs and student problems are challenges of higher education in Sudan. The absence of studying programs coordination at HEIs, the lack of higher education quality compliance, the lack of sufficient information technologies use in learning and teaching, the decrease in the volunteers number to enter HEIs − are the challenges of higher education in Japan. The comparison of two mentioned above countries shows that the challenges of higher education are directly connected with the economic problems and the

countries development rate. Bangladesh is one of these countries involved in these challenges. In its turn, a great numbers of volunteers to enter HEIs, the number of students exceeding the quantity of facilities, financial difficulties and the resources conservation are the most difficult challenges of higher education in Bangladesh. Insufficient higher education structure coordination according to international standards, the lack of convergence in the textbook content programs and the daily needs of society, the lack of financial resources, − these are the most topical challenges of Bulgaria. The insufficient use of communication and information technologies at HEIs and the Brain Drain phenomenon are the biggest challenges in China. The absence of adoptability to the global standards, structural inflexibility and the lack of ability to adopt communication and information needs are crucial challenges of South Korea in the field of higher education. Moreover, inadaptability of higher education to the culture of contemporary society, technological achievements decrease and the lack of professional manpower are the biggest challenges of higher education in Lebanon.

Taking into consideration all the above mentioned challenges, it is possible to conclude that the most complicated challenges of higher education in developing countries are as follow:

1) a lack of financial facilities;
2) a great number of applicants entering HEIs;
3) admission number decrease at HEIs;
4) student employment issues;
5) a lack of convergence in the textbook content programs and the daily needs of society;
6) a limited use of information technologies in learning and teaching;
7) financial problems;
8) resource conservation;
9) weak higher education coordination according to international standards;
10) professional manpower migration from the native country;
11) structural inflexibility of higher education;
12) a lack of specialized manpower.

Conclusion and Recommendations:

The above-raised issues point HEIs in developing countries out the importance of adjustment to the time upheavals and the society daily needs and their development. Meanwhile, these conditions cause the change in structure managers and HEIs' staff especially the members of scientific boards. As a result, it increases the quality of permanent education, students' performance and ensures a rapid promotion of higher education. Despite this, it guides students toward self-learning, the development of learning skills and absorption of information. The internationalization of higher education emphasizes the acceptability of foreign researchers and students, execution of international research projects, acceptability of scientific board members, dispatch of the scientific board members for the short-term periods, execution of common educational periods with the rest of HEIs, use of international standards to assess the educational process of a HEI. Highlighting comparative studies, using from other experiences, participation in knowledge production are the most important alternatives to qualify higher education in developing countries. In order to determine higher education policies and practical programs of HEIs in developing countries, the recommendations worth taking into consideration are as follows:

1) to pay attention to the strategic programs to manage higher education especially the challenges of higher education;

2) to revise textbooks and proportion of educational periods according to the society's needs;

3) to ensure HEIs' staff and scientific board members change in their attitude to the new technologies;

4) to launch digitalization of libraries and references and elaboration of information databases;

5) to pay attention to the English language usage:

6) to get rid of monopoly in periods possession, textbooks and educational programs;

7) to use information technologies for information delivery;

8) to prevent scientific stagnations;

9) to standardize the educational programs to produce knowledge;

10) to study the field of higher education worldwide in order to create conditions and ensure suitable environment for accepting foreign students, execution of common projects and exchange of experiences, educational and scientific innovations;

11) to make efforts toward higher education reconstruction with the aim of using new technologies cheaply and fast;

12) to use tools and educational models, especially distance learning to make progress in providing educational services and shortening educational periods;

12) to proceed with programs and educational workshops in order to change the attitude of scientific board numbers at HEIs toward using new tools with educational purposes;

13) to use communication and information tools to define the necessity alternatives;

14) to emphasize the tolerance skills, dialogue cooperation and internationally relaations;

15) to compete with the higher education performance worldwide attracting students addressing to distance learning.

1.3. Partner countries and specific features of higher education systems (Ukraine, Georgia)

The structure of higher education in Ukraine is presented in the table below (according to the Law of Ukraine of 01.07.2014 №1556-VII "On Higher Education") [1].

In Ukraine, the list of specialties includes 103 BSc and 81 MSc degree programs [2]. It is constantly being improved in order to ensure the connection of the modern HES with the economic needs and graduates` employment.

The Law of Ukraine "On Higher Education" guarantees Ukrainians the right for free higher education in all state HEIs, irrespective of gender, race, nationality, social and property status, type of occupation, worldview, political affiliation, religious beliefs, medical status, habitation and other circumstances.

The National Doctrine of Education Development in Ukraine in order to ensure equal access to quality higher education provides the following:

−introduction of an effective public informing system on the higher education obtaining possibilities;

−creating conditions for obtaining free higher education on a competitive basis;

−improving the legal framework for education at the expense of all-forms owned entities` and individuals` budgets;

−creating conditions for higher education for orphans, children deprived of parental care and children with disabilities;

−expanding opportunities for higher education through individual credit granting;

−ensuring high quality of higher education and graduates professional mobility in the labor market through the integration of HEIs, research institutions and enterprises, the introduction of flexible educational programs and information technology training;

−observance of the democracy and transparency principles in the student body formation through objective testing, creating conditions to ensure learning in accordance with the individual and the labor market needs.

Specialist training at Ukrainian HEIs can be carried out in the following forms:

1. Intramural form of study is a day release training, being primarily focused on classroom learning in terms of direct students` contact with teachers and with each other. The advantages of such training are the highest educational interaction of all educational process participants, potential for all instructional devices use, the widespread use of collaborative learning methods and forms, the ability to provide the maximum amount of educational material.

2. Work-based learning (evening-time education, extramural form of study) involves self-directed learning domination. Direct contacts between students and teachers are narrowed. Terminal and final examinations are applied. For some types of education (eg, medical) work-based learning cannot be introduced.

The structure of higher education in Ukraine

Higher education levels	Higher education degree, academic certificates (scientific degree)	Access qualification	Regulatory period (years) and volume (ECTS credits) of training	Academic rights	NQF	EHEA cycles
Scientific level (2nd scientific degree)	Doctor of Science, Doctor of Science Diploma	PhD Diploma			9th level	
Educational and scientific (the third) level, 1st scientific degree	PhD, PhD Diploma	Master`s Diploma	4 years, educational component – 30–60 credits	Access to the 2nd scientific degree	8th level	III cycle
Master's (the second) level	Master, Master`s Diploma	Bachelor`s Diploma	educational and professional program – 90–120 credits	Access to the 1st scientific degree	7th level	II cycle
			educational and scientific program – 120 credits (research component - min 30 %)			
	Master of medical, pharmaceutical or veterinary specialization	Certificate of complete general secondary education	300–360 credits (on the basis of complete general secondary education)			I-II cycles
Bachelor's (the first) level	Bachelor, Bachelor`s Diploma	Certificate of complete general secondary education	180–240 credits	Access to Master's degree programs	6th level	I cycle
		Junior Bachelor's Diploma	the volume can be reduced by the HEI decision			
Initial level (short cycle)	Junior Bachelor, Junior Bachelor's Diploma	Certificate of complete general secondary education	90–120 credits	Access to Bachelor`s degree programs	5th level	Short cycle of the I cycle

Adapting of work-based learning to the Bologna Process goals is relevant in the context of integration into the European educational space. Work-based learning system transformation provides the measures necessary to change the educational process organization concept like:

– gradation to an individual form of education, which is a hybrid, i.e. should include elements of both the work-based learning, distance learning and externship;

– transition from the semester to the accumulative system of student performance accounting. The introduction of an accumulative accounting system liberalizes clear deadlines for students;

– introduction of the modular-accumulative system of extramural students` independent work control during the semester.

3. Intra-extramural form of study (evening-time education) is a form of part-time education for highly qualified specialists. Higher education is obtained in evening HEIs or in evening departments, existing in most HEIs.

4. External degree program is generally intended to train individuals having appropriate educational and qualification levels. Students independently take all academic disciplines and pass a final control provided by the curriculum.

5. Distance learning lies in communication between teachers and students via the Internet and modern digital tools. The Concept of Distance Learning Development has been elaborated and approved in Ukraine. During 2020–2021 subsequent to the pandemic, the distance learning system was improved and implemented for all levels and forms of study.

Admission to HEIs is carried out on a competitive basis in accordance with entrant abilities and regardless of the HEI ownership form and sources of tuition fees. The system of external assessment of secondary school graduates` academic achievements, introduced in 2006, is designed to promote equal access to higher education. The results of secondary school graduates` testing in special Educational and Examination Centers serve as a basis for admission to HEIs. Testing results are credited as the State Final Certification. These Centers have the following main tasks:

–organizational and technical training implementation, ensuring external evaluation and monitoring the quality education performance;

–providing technological support in the statistical data collection, socio-psychological research and conducting staff attestation;

–fostering information technologies in teaching schoolgoers on the Educational and Examination Centers computer base.

The Ministry of Education and Science of Ukraine has published new conditions for entrants' admission to HEIs since 2010 in order to prevent the same concession recipient enrollment to several universities. The persons entitled to non-competitive admission will submit the original documents to the selection committee now.

All applicants need Certificates of Independent Assessment in three subjects. A Certificate in Mathematics or History of Ukraine is mandatory. The testing is conducted only in Ukrainian. Persons belonging to national minorities can use a dictionary. Master course enrollment presupposes a foreign language exam.

The prospect of Ukraine's HES joining the European Higher Education Area envisages its construction taking into account the principles based on the University Charter adopted in Bologna in 1988. The main principles of this system include:

1. the principle of combining autonomy with responsibility. According to this principle, HEIs should have the right to mold their strategy, choose their teaching and research priorities, spend their resources, profile their programs and set their own criteria for professors and students admission. European HEIs need the necessary organizational freedom, clear and favorable regulatory conditions and sufficient funding;

2. the principle of educational responsibility to society. The European Higher Education Area is based on European traditions of educational responsibility to society, on wide and open access to both pre-tertiary and post-graduate education; on education for personal development and LLL; on citizenship of both short-term and long-term social expediencies;

3. the principle of higher education based on scientific research. It ensures the ERA establishment.

4. the principle of diversification. European higher education is characterized by a variety of languages, national systems, types of institutions, orientation of training profiles and curricula. At the same time, its effectiveness depends on the ability to organize this diversity obtaining positive results. HEIs strive for convergence so to have dealing with diversity as an asset rather than a reason for non-recognition or exclusion.

The national system of higher education in Ukraine is arranged in accordance with these principles in the independent State development process making the HES transformational and bringing it closer to European standards [3].

2. EUROPEAN CREDIT TRANSFER SYSTEM – ECTS

2.1. ECTS and history of its development

The history of ECTS, 1989–2019 celebrated the 30th anniversary of the European credit system for higher education. The development of ECTS had to start from scratch because worldwide there was no experience in setting up and running a national and/or international student workload-based transfer system that applied credit points. A Pilot Scheme (1989-1995) was set up to define ECTS. It involved five subject areas, and 145 HEIs in total, and set out to develop a sustainable, robust and reliable tool to facilitate international student mobility.

Based on the notions of trust and confidence and the concept of 'relative' student workload, it was unique. It opted for 60 credit points to represent one academic year [4].

At the initial stage, ECTS performed the functions of the transfer system. Its main task was to serve as a bridge for the connection of various educational systems and structures in Europe. At the same time, ECTS provided all three main aspects of the transfer: transfer of educational content; transfer of educational activities volume; transfer of evaluation results.

In the framework of the Erasmus program, student mobility was implemented on the basis of Bilateral Agreements between universities and departments, which were usually based on pre-established scientific and educational contacts. This meant that when a student was sent to study at another university abroad, his home institution had enough complete information about the content of academic disciplines that the student studied abroad, learning technologies, assessment culture, etc.

It can be assumed that at that time ECTS (often called ECTS 1) was mainly a tool for organizing international mobility, formalization of relevant procedures, provided certain guarantees for both the student and for both universities. Significant advantages of ECTS were its simplicity and versatility at both national and international levels [5].

Around 2000 it was concluded that ECTS in its present form was no longer sustainable and that action was required. There were concerns about a lack of flexibility and the level of recognition. It was thought necessary to transform the European Credit Transfer System into a European Credit Transfer and Accumulation System (ECTS 2) in the framework of the Tuning Project. This implied an adjustment of the ECTS principles: not only student workload but also the outcomes of the learning process should be decisive for awarding credit points.

This linked ECTS to the paradigm change that was embraced in 2009 by the Bologna Process: from the expertise-driven approach to the so-called student-centered approach - that is to make what students need to operate successfully in society after graduation the focal point of educational programs.

Today, the use of ECTS credit points in higher education in Europe is routinely perceived as a day-to-day reality. Its underpinning concept – workload – has also been picked-up in other world regions. ECTS is:

−a system of both transfer and accumulation of credits;

−the basis for educational programs development and implementation;

−a tool for comparing academic achievements in different countries and in different aspects of formal and non-formal learning, etc. [5].

Time history of ECTS transformations are indicated in the table "ECTS Key Features over time".

At present, nearly all of the 48 signatory of the Bologna Declaration are convinced that ECTS is a key instrument for student-centered reform of higher education programs [4].

ECTS Key Features over time

ECTS definition	
1990	ECTS, the European Community Course Credit Transfer System, is based on the principle of mutual trust and confidence between participating HEIs. The few rules of ECTS, concerning Information (on courses available), Agreement (between the home and the host institutions) and the Use of Credit Points (to indicate student workload) are set to reinforce mutual trust and confidence. Each department describes the courses it offers not only in terms of content but also adding the indication of credits to each course
1995/1998	ECTS provides an instrument to create transparency, to build bridges between institutions and to widen the choices available to students. The system makes it easier for institutions to recognize the learning achievements of students through the use of commonly understood measures – credits and grades – and it also provides a means to interpret national systems of higher education. The ECTS system is based on three core elements: information (on curriculum programs and students' achievement), mutual agreement (between the partner institutions and the student), use of ECTS credits (to indicate student workload)
2004	The ECTS is a student-centered system based on the student workload required to achieve the objectives of a program, objectives preferably specified in terms of the learning outcomes (LO) and competences to be acquired
2009	ECTS is a learner-centered system for credit accumulation and transfer based on the transparency of LO and learning processes. It aims to facilitate planning, delivery, evaluation, recognition and validation of qualifications and units of learning as well as student mobility. ECTS is widely used in formal higher education and can be applied to other LLL activities
2015	ECTS is a learner-centered system for credit accumulation and transfer, based on the principle of transparency of the learning, teaching and assessment processes. Its objective is to facilitate the planning, delivery and evaluation of study programs and student mobility by recognizing learning achievements and qualifications and periods of learning
ECTS credits	
1990	The workload – 60 credits per year of study; 30 credits/semester and 20 credits/term. It is important that no special courses be set up for ECTS purposes, but all ECTS courses be mainstream courses of the participating institutions, as followed by home students under normal regulations
1995/1998	The workload – 60 credits per academic year; 30 credits/semester and 20 credits/term
2004	ECTS is based on the principle that 60 credits measure the workload of a fulltime student during one academic year. The student workload of a fulltime study program in Europe – around 1500–1800 hours/year; one credit – 25-30 working hours
2009	60 ECTS credits are attached to the workload of a full-time year of formal learning (academic year) and the associated LO. The student workload –1500–1800 hours/academic year; one credit corresponds to 25-30 working hours
2015	ECTS credits express the volume of learning based on the defined LO and their associated workload. 60 ECTS credits are allocated to the LO and associated workload of a full-time academic year or its equivalent, which normally comprises a number of educational components to which credits are allocated. ECTS credits are generally expressed in whole numbers
Learning outcomes (LO)	
2004	Credits can only be obtained after successful completion of the work required and appropriate assessment of the LO achieved. LO are sets of competences, expressing what the student will know, understand or be able to do after completion of a process of learning, long or short
2009	ECTS credits are based on the workload students need in order to achieve expected LO. LO describe what a learner is expected to know, understand and be able to do after successful study completion. They relate to level descriptors in NQF and EQF
2015	LO are statements of what the individual knows, understands and is able to do on a learning process completion. The achievement of LO has to be assessed through procedures based on clear and transparent criteria. LO are attributed to individual educational components and to programs at a whole. They are also used in EQF and NQF to describe the level of the individual qualification
Workload	
1990	ECTS credits are a value allocated to course units to describe the students' workload required to complete them. They reflect the quantity of work each course requires in relation to the total quantity of work required to complete a full academic year at the institution: that is, lectures, practical work, seminars, individual work, examinations and other assessment activities. ECTS credits express a relative value, with respect to one year's total workload
1995/1998	ECTS credits are a relative rather than an absolute measure of student workload. They only specify how much of a year's workload a course unit represents at the institution or department allocating the credits

2004	Student workload consists of the time required to complete all planned learning activities (attending lectures, seminars, independent and individual study, preparation of projects, examinations, etc.)
2009	Workload indicates the time students typically need to complete all learning activities (lectures, seminars, projects, practical work, self-study, examinations) required to achieve the expected LO
2015	Workload is an estimation of the time the individual typically needs to complete all learning activities required to achieve the defined LO in formal learning environments. The correspondence of the academic year full-time workload to 60 credits is often formalized by national legal provisions. It should be recognized that the typical workload and that for individual students the actual time to achieve the LO will vary
Allocation of credits	
1990	It is up to the participating institutions to subdivide the credits for the different courses. Practical placements and optional courses, which form an integral part of the study courses also receive academic credit. Non-credit courses may, however, be mentioned in the Transcript of Records
1995/1998	ECTS credits are a numerical value (between 1 and 60) allocated to course units to describe the student workload required to complete them. They reflect the quantity of work necessary to complete a full year of academic study at the institution (lectures, practical work, seminars, tutorials, fieldwork, private study, examinations or other assessment activities). ECTS is thus based on a full student workload and not limited to contact hours only
2004	Credits are allocated to all educational components of a study program (such as modules, courses, placements, dissertation work, etc.) and reflect the quantity of work each component requires to achieve its specific objectives or LO in relation to the total quantity of work necessary to complete a full year of study successfully
2009	Credits are allocated to entire qualifications or study programs as well as to their educational components (modules, course units, dissertation work, work placements and laboratory work). The number of credits ascribed to each component is based on its weight in terms of the workload students need in order to achieve the LO in a formal context
2015	Allocation of credits is the process of assigning a number of credits to qualifications, degree programs or single educational components. Credits are allocated to entire qualifications or programs according to national legislation or practice, where appropriate, and with reference to NQF and/or EQF. They are allocated to educational components (course units, dissertations, work-based learning and work placements), taking as a basis the allocation of 60 credits per full-time academic year, according to the estimated workload required to achieve the defined LO for each component
Awarding of credits	
1990	Credits are awarded only when the courses have been completed and all the required examinations have been successfully taken
1995/1998	ECTS credits are allocated to course units but are only awarded to students who successfully complete the course by satisfying the assessment requirements. In other words students do not get credits simply for attending classes or spending time abroad – they must satisfy the assessment regulations specified at the host institution to demonstrate that they fulfilled the stated learning objectives for the course unit. The assessment procedure may take various forms: written or oral examinations, coursework, a combination of the two or other means such as presentations at seminars, information on which should be included in the information package
2004	(See Learning outcomes)
2009	Credits are awarded to individual students (full-time or part-time) after completion of the learning activities required by a formal program of study or by a single educational component and the successful assessment of the achieved LO
2015	Awarding credits in ECTS is the act of formally granting students and other learners the credits that are assigned to the qualification and/or its components if they achieve the defined LO. National authorities should indicate which institutions have the right to award ECTS credits. Credits are awarded to individual students after they have completed the required learning activities and achieved the defined LO, as evidenced by appropriate assessment. If students and other learners have achieved LO in other formal, non-formal, or informal learning contexts or timeframes, credits may be awarded through assessment and recognition of these LO
Transfer of credits	
1990	The students participating in ECTS will receive full credit for all academic work successfully carried out at any of the ECTS partner institutions and they will be able to transfer these academic credits from one participating institution to another on the basis of prior agreement on the content of study programs abroad between students and the institutions involved. When the student has successfully completed the study program previously agreed between the home and the host institutions, and returns to the home institution, credit transfer will then take place, and the student will continue the study course of his/her home institution without any loss of time or credit. If, on the other hand, the student decides to stay at the host institution and to take the degree there, he/she may have to adapt his/her study course due to the legal, institutional and departmental rules in the host country, institution and department

1995/1998	Home and host institutions prepare and exchange transcripts of records for each student participating in ECTS before and after the period of study abroad. A copy of these transcripts is given to the student for his/her personal file. The home institution recognizes the amount of credits received by their students form partner institutions abroad in respect of specific course units such that the credits for the course unit passed replace the credits which would otherwise have been obtained from the home institution. Thus full academic recognition is given
2009	Credits awarded in one program may be transferred into another program, offered by the same or another institution. This transfer can only take place if the degree-awarding institution recognizes the credits and the associated LO. Partner institutions should agree in advance on the recognition of periods of study abroad
2015	Transfer of credits is the process of having credits awarded in one context (program, institution) recognized in another formal context for the purpose of obtaining a qualification. Credits awarded to students in one program may be transferred from an institution to be accumulated in another program offered by the same or another institution. Credit transfer is the key to successful study mobility. Institutions, faculties, departments may make agreements which guarantee automatic recognition and transfer of credits.
Accumulation of credits	
2009	Credits may be accumulated with a view to obtaining qualifications, as decided by the degree-awarding institution. If students have achieved LO in other learning contexts or timeframes (formal, non-formal or informal), the associated credits may be awarded after successful assessment, validation or recognition of these LO
2015	Accumulation of credits in ECTS is the process of collecting credits awarded for achieving the LO of educational components in formal contexts and for other learning activities carried out in informal and non-formal contexts. A student can accumulate credits in order to: − obtain qualifications, as required by the degree-awarding institution; − document personal achievements for LLL purposes
ECTS documentation	
2015	The use of ECTS credits is facilitated and quality enhanced by the supporting documents (Course Catalogue, Learning Agreement, Transcript of Records, and Work Placement Certificate). ECTS also contributes to transparency in other documents such as the DS

2.2. The ECTS Course Catalogue content and assignment

Three key ECTS elements (Information, Agreement and the Use of Credit Points) are implemented by addressing to the following main documents:

− Course Catalogue is a document containing the HEI curriculum descriptions in two languages, national and English (or only in English for programs taught in this language), posted on the Internet and/or published in hard copy;

− Learning Agreement (LA) contains a list of disciplines to be studied by the student, agreed with the responsible HEI department. If there is any need in credits transfer, the LA should be agreed with both old and new institutions before the student transfer to another HEI and must be updated as changes occur;

− Transcript of Records reflects the student's success in the disciplines studied, credits, local grades (according to national tradition or regulations of the HEI) and ECTS grades received. When the need of credits transfer arises, the Transcript of Records is issued by the home institution before the outgoing student leave, and by the host institution at the end of his/her period of study.

The ECTS Course Catalogue is one of the supporting documents of the European Credit Transfer (and Accumulation) System (ECTS). According to the ECTS Users' Guide, the ECTS Course Catalogue should include "detailed, user-friendly and up-to-date information on the institution's learning environment that should be available to students before entering and throughout their studies to enable them to make the right choices and use their time most efficiently" [6].

The ECTS Course Catalogue has always played an important role in the Erasmus program. However, the importance of the ECTS Course Catalogue is not limited to international mobility in the framework of Erasmus+. Providing insight into an institution's educational programs and teaching and learning environment is also important for (international) recruitment in general and for collaboration with other HEIs and with stakeholders in the world of work.

To emphasize the importance of the ECTS Course Catalogue, the ECTS label was introduced in 2009. Institutions that could demonstrate that they had an ECTS Course Catalogue that complied with

the guidelines in the ECTS Users' Guide could apply for and be awarded the ECTS label. When the Erasmus+ program was launched in 2014, the ECTS Course Catalogue received a prominent place in the Erasmus Charter for Higher Education (ECHE). By signing the ECHE, HEIs agree to comply with the requirements regarding the ECTS Course Catalogue.

Some general instructions from the ECTS Users' Guide:

− the Course Catalogue should be published on the institution's website. It is advisable to make sure that the ECTS Course Catalogue is accessible for all visitors of the institution's website and is not 'hidden' on the institution's intranet and only accessible for those with a password;

− the Course Catalogue should be published sufficiently in advance for prospective students to make their choices;

− the general information about an institution and the information about study programs and individual educational components should be available in a widely-spoken language (e.g. English) and the language of instruction as an ECTS Course Catalogue is not only aimed at (prospective) students, but at a much wider audience, including employers, colleagues in other institutions and partner institutions, and other stakeholders;

− the institution is free to decide the format of the Catalogue, as well as the sequencing of the information. However, a common structure introduced in the ECTS Users' Guide [6] makes Course Catalogues more easily comparable and improves transparency. In any case, the Course Catalogue should include the general information on the institution, its resources and services, as well as academic information on its programs and individual educational components.

1. General information

The general information on the institution will, in most cases, be published on the institution's website with the listed information placed, depending on the structure of the institution's website [7].

General information	
Name and address	Name in the national language. If the HEI has a name in English, this name should also be given. List of campuses and addresses at which the HEI is established
Description of the institution (including type and status)	Any general description of the institution should clearly mention the type of HEI, especially in the case of a binary system
Academic authorities	Provide information on the HEI governance structure, including the names and positions of the Executive Board members
Academic calendar	Start and end of the academic year (specify per year, if these dates vary over the years) and main holidays
List of programs offered	Provide a comprehensive survey of the faculties/departments and the degree programs (BSc, MSc, PhD) that are offered. The names of the degree programs should be available in English and in the language of instruction
Admission requirements, including language policy, and registration procedures	This information may be given at an institutional level and/or at the level of individual programs. Make sure that it is clear whether the information applies to fee-paying students (national and/or international) or to exchange student
Arrangements for the recognition of credit mobility and prior learning (formal, informal and non-formal)	Describe the procedure for the credits recognition that students have earned during a mobility period abroad (for study or traineeship). Also describe the institution's policy on the prior learning recognition
ECTS credit allocation policy (institutional credit framework)	Describe how ECTS credits have been allocated to the programs. If there is an institutional or national policy with regard to the number of hours workload that represent 1 ECTS credit, provide this information
Arrangements for academic guidance	Describe what types of academic guidance are available
Resources and services	
Student affairs office	The information on these topics is relevant for both national and international students and for both fee-paying and exchange students. Depending
Accommodation/housing	
Meals	
Cost of living	
Financial support for students	
Medical facilities	
Insurance	

Facilities for students with disabilities and special needs	on the target group, the nature of the information may differ. Make sure that it is unambiguous to whom the information applies
Learning facilities	
International mobility possibilities	
Practical information for incoming mobile students	
Language courses	
Work placement possibilities	
Sports and leisure facilities	
Student associations	

2. Information on programs

A complete ECTS Course Catalogue provides information on all degree programs that are offered by the HEI, so not only programs that are open to international students (fee-paying and/or exchange). The information should be available in English and the language of instruction.

Make sure the information detailed below tallies with the information on the Diploma Supplement that is issued to students who complete the program [7].

Qualification awarded, length of program, number of credits	Be specific about the type of qualification, e.g. Bachelor of Arts, or Bachelor of Nursing. Give the length of the program in years or in months. Give the total number of ECTS credits for the program
Level of qualification according to the NQF and the EQF	E.g. BSc degree; EQF for LLL: level 6; NQF: level 6
Field(s) of study	The International Standard Classification of Education (ISCED) was developed by UNESCO to facilitate comparisons of education statistics and indicators across countries on the basis of uniform and internationally agreed definitions
Specific admission requirements (if applicable)	This information may be given at an institutional level and/or at the level of individual programs. Make sure that it is clear whether the information applies to fee-paying students (national and/or international) or to exchange students
Specific arrangements for recognition of prior learning (formal, non-formal and informal) (if applicable)	
Qualification requirements and regulations, including graduation requirements (if applicable)	Normally, students will receive a diploma when they have completed the (official) study program and have obtained the required number of credits. If there are any other specific requirements that students need to have fulfilled, mention them here
Profile of the program	It could be argued that the collective information in this section is a program profile. However, it is important that the ECTS Course Catalogue includes a brief description of the main focus of the program
Program learning outcomes	List the LO at program level. It is advisable to limit the number of LO to approximately 20. It is also advisable to make sure that the program LO in the course catalogue correspond with those on the Diploma Supplement
Program structure diagram with credits (60 ECTS credits per full time equivalent academic year)	Provide an overview of the structure of the entire program. This can be done with a diagram, but other forms of presentation are also possible. It should be made clear whether a program is based on e.g. semesters or trimesters. In some HEIs, a semester is divided into two periods of around 10 weeks
Mode of study	Indicate whether the program is e.g. full-time, part-time, dual, e-learning
Examination regulations and grading scale	The examination regulations should be accessible, although most HEIs will not choose to give this type of information a very prominent place on the website, since the information tends to be very detailed. Provide information on the grading system used at national and/or institutional level. If the institution/program does not use the ECTS grading table, provide information on how the transfer of grades awarded by partner HEIs is done
Obligatory or optional mobility windows (if applicable)	Provide information on whether students have the option or are obliged to do part of their study program outside of the institution. The term mobility window generally refers to a study period or work placement abroad
Work placement(s) (if applicable)	Provide information on whether the program provide information on whether students have the option/are obliged to do part of their study program outside of the HEI. The term mobility window generally refers to a study period or work placement abroad contains work a placement(s) (internships; traineeships) and whether these are obligatory or optional parts of the program. Include the number of credits for (each of) the work placement(s)
Work-based learning (if applicable)	If the program contains a form of work-based learning other than a (traditional) work placement, give a brief description
Program director or equivalent	It may be an institution's policy not to provide names and contact details of individual members of staff on the institution's website. In that case, general

	contact details should be provided
Occupational profiles of graduates	Give a brief description of the types of jobs for which the program prepares students and/or that graduates generally fulfil
Access to further studies	Describe what types of further study (e.g. Master or PhD programs) are accessible for graduates

3. For joint programs (additional information)

Information on the form of the diploma and DS (joint/double/multiple)	A joint program may lead to different types of degrees. Joint degrees can only be awarded by a consortium of two or more HEIs. Joint program more often lead to a double or multiple degree; in this case, each of the participating HEIs awards their own degree
Members of consortium and their role	List the HEIs which form the consortium that is responsible for offering the program and, in the case of a joint degree, are responsible for issuing the diploma
Mobility structure of the program	Joint programs generally involve a mandatory mobility period at (one of) the partner HEIs that offer the joint program. Provide information on which parts of the program the student has to do abroad, including the number of ECTS credits

4. Information on individual educational components

The information on the individual educational components that make up a study program is what is often understood to be the 'real' course catalogue. It is important to provide a clear link between the information about a program and the information about the individual educational components that are part of a program.

As with the information at program level: the information should be available in English and the language of instruction [7].

Code	Code that is assigned to the component in the institution's student administration system
Title	Make sure that the English translation of the individual educational component name tallies with the names listed on the Transcript of Records (which is part of the DS)
Type (compulsory/optional) and cycle (short/first/second/third)	Cycle refers to B/M/Doctorate. It may not be necessary to provide this information for every individual educational component, as long as it is clear which program the component is part of
Year of study when the component is delivered (if applicable)	Indicate in which year students normally complete this component
Semester/trimester when the component is delivered	Indicate whether the component if (only) offered in the first or second semester of the academic year, or in both
Number of ECTS credits allocated	Give the number of ECTS credits that has been allocated to this component
Learning outcomes	Provide a list of the LO for this component
Name of lecturers	Provide information on the lecturers that are responsible for teaching this component. It may be an institution's policy not to provide names and contact details of individual members of staff on the institution's website. In that case, general contact details should be provided
Mode of delivery	Provide information on the mode of the component delivery, e.g. via e-learning, face-to-face, etc.
Prerequisites and co-requisites (if applicable)	Provide information on whether a student must have successfully completed certain courses before s/he can take this course
Course content	Provide a brief description of the course content. This information bears a close link to the LO of the component, but has a different function
Recommended or required reading and other learning resources/tools	Provide a list of the (most important) literature that students are required/recommended to read, but also include other learning resources. The information is not only relevant for students, but also for partners, in that it indicates the main focus and the approach that is used
Planned learning activities and teaching methods	List the most important modes of delivery for this component, e.g. lectures, group work, seminars, tutorials, etc.
Assessment methods and criteria	Provide information on how this component will be assessed, e.g. by means of a written or oral exam, a report, a presentation, a project, group work assessment

Language of instruction	Indicate in which language(s) the component is taught. If the component is taught in the domestic language, but may include guest lectures given by international guest lecturers or group work with international groups of students, it is relevant to mention that the language of instruction can also be English.

2.3. The estimation procedure and evaluation system analysis

Student assessment is the most important component of the higher education process. Student activities in mastering LO planned in ACWP.

Learning outcomes are what a student knows, understands and is able to perform after completing the learning process. The level of student LO achievement is assessed during estimation activities.

Considering the current regulatory framework for students` scholarships, clear and detailed certification of their academic achievements becomes paramount. It should be carried out through transparent procedures based on objective criteria.

Assessment criteria is a description of what a student should do to demonstrate the LO achievement. The criteria content should be based on the competency characteristics defined for each higher education level by the NQF [8].

Grading scales

Due to the new European approach to grades conversion [9] and the official absence of a national grading scale, HEIs have been given the right to introduce institutional grading scales.

The most common scales for student learning outcomes assessment in most universities in Ukraine

Rating	Conversions
90–100	Excellent
75–89	Good
60–74	Satisfactory
0–59	Fail

Purpose of evaluation

Student LO assessment is carried out on a 100-point scale. Grades above 60 points are considered positive and are used for:

1. *Transfer of credits* for each component (credit module) of the educational process plan in accordance with the summative assessment results.

2. *Determining the rating score of the quality of training* in order to analyze the graduates LO for compliance with the conditions of degree with honours awarding.

The degree with honours is issued if at least 75 % of all credit modules (disciplines, practices, course projects, etc.) have grades of at least 90 (excellent), and the rest - at least 75 points (good), as well as if the student has defended a Qualifying Paper/passed Certification Exams with a grade of not less than 90 (excellent).

3. *Determining the student's rating score* when considering the academic scholarship granting.

4. *Grades conversion* based on evaluation tables of two reference groups with different national evaluation systems.

5. *Professional qualification awarding*. Criteria for awarding: all credit modules have grades of at least 75 points (good), Practical Training results estimation and Qualifying Paper defence - at least 75 points (good).

Diagnostic tools

Course modules		1. Generalized diagnostic tools. According to HEIs Standards, academic course working program for each credit module should contain generalized diagnostic tools developed on the basis of program LO according to higher education standards. 2. Specified diagnostic tools are directly applicable to control measures. They are formed on the basis of generalized diagnostic tools by specifying the initial data and the way of LO demonstrating. Comprehensive Module Test (CMT) should contain specific tasks that cover key LO. The number of specified tasks of the CMT should be adapted to the allotted completion time. The number of CMT options should provide the task individualization. The number of papers for the oral exam must exceed the number of students in the academic group by at least five
Term papers		Term paper is an individual task, the implementation of which in accordance with the educational program refers to the design-construction competencies of the specialist. This type of training may include elements of the technical task, sketch and technical projects, working, operational, repair documentation development, design justification of technical solutions, etc. Term papers execution is regulated by the relevant standards. Term papers are performed in order to consolidate, deepen and generalize the knowledge acquired by students during their studies, their application for a comprehensive solution of a specific professional task. This form of educational work is used at the final stage of curriculum learning. The project topic should be clear in terms of the final product to be obtained. Term papers subject is developed by the corresponding department, tasks for students - by the teacher-supervisor. Student also have the right to propose the term paper topic/ source data/decision-making methods according their own areas of expertise in order to avoid making stereotypical decisions and to promote analytical skills development. The implementation of comprehensive interdisciplinary projects is welcome. Requirements for drawings, software, structure and content of paper are described in the Term paper guidelines. The term paper is performed by the student independently under the teacher`s supervision.
Practical Trainings		Report on the Practical Training and the individual task implementation is the object of the Practical Training results evaluation. The report consists of two parts. The general part covers the following issues: – information about the enterprise (Practical Training base) nature of business; – structure of the Practical Training base; – generalized characteristics of the production process (algorithm and technological operations description, organization and management system components); – professional responsibilities of specialists with higher education, aimed at the technological process organization, implementation and management. The second part of the report should reflect the results of the individual practical task. It should contain a description and evaluation of the practical solution. This approach activates students, expands their worldview and creates conditions for initiatives` implementation. The report is reviewed and approved by the Head of the enterprise and checked by the supervisor from the HEI.
Qualification Examination	Qualifying Paper	Qualifying Paper (degree project, degree work) is performed by the student at the final stage of professional training. It assesses the level student professional competencies formation. Degree Project devoted to solving production tasks, the vast majority of which are referred to design-constructing in the higher education standards in accordance with professional functions. Execution of the technical task, sketch and technical projects, working, operational, repair documentation, etc. is provided. The Degree Project includes a set of sketches (graphical part) and explanatory note. Degree Work is devoted to solving production problems in the technological process organization (technical training, maintenance, control) and management (planning, accounting, analysis, regulation). Degree Work includes demonstration material (reflecting original practical results) for the report to the examination board and an explanatory note.
	Certification Exam	The Certification Exam is carried out according to the Complex Qualifying Tasks (CQT). The content of the CQT submitted for the Certification Exam is focused on: – for BSc – on the diagnosis of the level of theoretical knowledge and practical skills sufficient for the successful performance of professional duties according to the specialty (specialization); – for MSc - on the diagnosis of the level of theoretical knowledge, skills, abilities in the chosen specialty (or specialization), general principles of scientific and/or professional activity techniques, other competencies sufficient for effective innovative tasks implementation in professional activity.

Evaluation criteria

The student's LO, reflecting the achieved level of competencies relative to the expected ones, are identified and measured during the estimation activities through certain criteria application.

Complex and time-consuming tasks (tests, CMT, Term/ Qualifying Papers, Practical Trainings, Certification Exams etc.) are assessed expertly using criteria characterizing the ratio of requirements to the level of competencies and assessment indicators on a rating scale.

Requirements to LO (knowledge, skills, communication, autonomy and responsibility) to ensure a cross-cutting approach must be correlated with the descriptors (competencies description) of the NQF [8].

Estimation procedure

According to ECTS [6], assessment includes the full range of written, oral, practical control procedures depending on the competence characteristics (knowledge, skills, communication, autonomy and responsibility) of LO, the achievement of which is monitored.

Measurement of the LO achievement level is carried out by the mastering coefficient or expertly according to the criteria correlating with the NQF descriptors.

Course modules	Formative assessment should be carried out during all types of classroom training. Its purpose is to determine the disciplinary LO achievement level on a particular course unit, practical classes (tests, individual tasks checking and defense), laboratory works (checking and defense), seminars (reports presentation, participation in discussions). The summative assessment (grading test, exam) purpose is a comprehensive assessment of the LO formation level in the curricula for the quarter, semester, academic year. Grading tests are carried out on the formative assessment results basis. The summative assessment results for the semester are used as a criterion of curriculum mastering by the student. The summative assessment form is indicated in the ACWP. The content and structure of exam papers and evaluation criteria are determined by the Department decision. An individual schedule of the summative assessment can be set for individual students if there are documented clear reasons.
Term papers	The final quality assessment of term papers is carried out before the examination session according to the department consultations schedule. Term papers assessment is carried out in accordance with the general criteria set out in the NQF descriptors
Practical Trainings	The final assessment of the Practical Training results is carried out before the examination session according to the department consultations schedule. The Practical Training results evaluation is carried out expertly. The grade for the Practical Training is calculated as the average score based on the results of the report`s general part, the individual task and taking into account the reference of the head of the Practical Training base.
Qualification Examination	Attestation of persons who obtain the degree of junior bachelor, BSc or MSc is carried out by the examination board in accordance with the regulations on the examination board approved by the Academic Council. Qualifying Paper must be checked for plagiarism and published on the official website of the university or its department, or in the repository. MSc' certification may be carried out in the form of a Certification Exam in the specialties and in the manner prescribed by the Cabinet of Ministers of Ukraine [1]. The HEI awards the person, who has successfully completed the educational program, the appropriate higher education degree and assigns the appropriate qualification on the basis of the examination board decision.

Liquidation of unfulfilled program requirements

Course modules	Re-completion of the course summative assessment, when the student received a grade "fail" (below 60 points), is allowed no more than twice. Student attempts to correct the grade and prevent unfulfilled program requirements are limited to one month after the examination session end. The first re-examination is administered by the relevant course teacher, the second – by the commission consisting of three persons: the course teacher; the head of the department; a representative of the dean's office or the relevant department teacher. The decision of the commission is final. If the commission confirms the grade "fail" or if the student does not appear at the commission meeting without a clear reason, the commission notifies the dean of the faculty. Thereafter, an enrolment termination order for student`s academic failures is issued or the conditions for the course re-study are determined by the HEI rector.
Term papers	Liquidation of unfulfilled program requirements on term papers is carried out similarly to the procedure of unfulfilled program requirements liquidation on course modules.

Practical Trainings	A student who did not complete the practical training program without clear reasons and received a negative reference from the enterprise or a grade "fail" is expelled from the HEI.
Qualification Examination	The Qualifying Paper re-defense or the Certification Exam re-passing in order to increase the grade is not allowed. If the student failed in the Certification Exam passing/Qualifying Paper defense, he/she is expelled from the HEI and an academic certificate of a standard form is issued. In this case, the examination board determines whether the student can submit the same Qualifying Paper to the defense (with the modifications, which is determined by the commission) or must develop a new topic (which is assigned by the relevant department). A student who has not defended the Qualifying Paper is allowed to re-defend it within three years after graduation from the HEI. If a student was admitted to the Qualification Examination, but for a clear documented reason could not pass it in time, the First vice-rector determines the date of an additional examination board meeting during it`s working period. For students not admitted to the Examination having clear documented reasons not to be prepared for it, the Rector at the request of the Dean of the Faculty extends the Learning Agreement term until the next examination session, but not more than one year.

Evaluation system analysis

National Evaluation Systems vary from country to country. Almost all of them are based on indicators, that is, students are assessed by comparing their achievements with certain criteria and standards of LO that do not depend on the composition or volume of the assessed student body. Some HEIs and Public Authorities provide detailed and accurate samples indicating the knowledge level, which a student needs to obtain a particular grade.

There are a few exceptions to the general Rule of Indicator Assessment. For example, Spanish HEIs now use a normalizing system for the highest degree awarding, and according to the "Matricula de Honor" law, no more than 5 % of students can receive it. The normalizing principles, underlying the ICTS, do not comport well with the fact that the Indicator Assessment Systems are most often used in European HEIs [10].

Universities in all EU countries except Sweden use numerical evaluation systems in combination with grade descriptions. Often the Systems used in one country differ significantly from each other. For example, Finish HEIs use two evaluation scales – from 5 to 3 (the highest grade) to 1+ (the lowest grade); Danish HEIs – from 13 (the highest) to 6 (the lowest), while there is no grade of 12; Italian – from 30+ to 18 points. Most evaluation scales are bottom-up (the higher the point, the higher the final grade). There are also exceptions – Austria, Germany, Czech Republic, Ireland, Malta and Great Britain (although at the latter three countries Evaluation System based on rising percentages is used). In general, there is no definite dominant System in the European Union [11].

Most scales are asymmetric with respect to a passing grade. For example, there are only 2 or 3 passing grades in Sweden and the Czech Republic, while in Germany – up to 11. However, there is a separate category assigned to outstanding academic results in all Evaluation Systems. So, in the Flemish part of Belgium, students with a maximum (20) points acquired receive the degree "With Honours/the highest outstanding scores and congratulations from the Examination Board" [Met de grootste onderscheiding met felicitaties van de Examencommissie]. However, this degree is awarded differently. In Latvia, the evaluation scale includes points from 1 to 10, but the maximum grades are 8 – "very good" [Ļoti Labi], 9 – "excellent" [Teicami] and 10 – "with honors" [Izcili]. The highest grade is received only by the very best students, whose knowledge significantly exceeds the expected level from this course (for instance, if a student demonstrates familiarity with additional scientific literature or participates in additional research activities). Similarly, in Italy the maximum score is 30 points [con lode/cum laude] and in exceptional cases – [con lode e pubblicazione] – with thesis publication.

Most countries (except Greece and Sweden) have a minimum required passing grade – "fair" or "sufficient". In all countries' Systems, there are intermediate grades between the minimum and maximum grades – "good" and "very good". However, the grades awarded to most students are understood and used differently in some countries. In some (e.g. Germany, Latvia, Lithuania, the

Netherlands and Poland) more than one passing grade is used, in others “good” and “very good” grades are split into smaller gradations.

The problem of calculating the percentage equivalent of various grades also exists. Converting to percentages allows estimate the range of these individual categories. As expected, in many cases (with rare exceptions) it is found that the higher the grade, the smaller its range. With minor discrepancies, passing grades hover around 50 %, i.e. from 48 to 51 %. Such estimations are used in more than half of the EU countries. In most countries, there is only one failing grade (“fail”, “insufficient”, “failure”, “failing”, “poor”) [11].

Not all universities provided information on the number of re-examinations allowed and how much of the re-examination grade is taken into account. However, the existing evidence suggests a variety of practices. In Italy, students can decide whether to accept the grade or to retake an exam, even if they have been assigned passing grades. The re-examination can be completed once, sometimes more times. In Denmark, students are given 3 attempts (in exceptional cases – 4; a special permission of the Ministry may be issued in case of the 5^{th} attempt). At the same time, unsuccessful attempts are recorded in the student record book but are not taken into account when calculating the final grade. Finland, Germany and Latvia do not have uniform state rules governing the re-examination; HEIs develop their own procedures. As a rule, students are allowed to retake.

Almost in all systems, the grade obtained during the re-examination is fully credited without reducing the overall grade.

Thus, the creation of a new common European Evaluation System would benefit the European integration in the field of higher education. Ideally, it should be based on indicators that will be compared with a certain level of academic achievement; it should contain five or more passing grades, one of which will only be awarded to the very best students; provide various well-defined categories for average and good students (currently being the majority). A passing grade must be 5 out of 10 or 10 out of 20; there must be another “sufficient” grade above the passing grade. Students must also be eligible for at least two re-examination attempts without reducing the overall grade [11].

3. INTERNATIONAL MOBILITY AND STUDYING/TRAINEESHIPS OUTCOME RECOGNITION

3.1. Step mobility

Special Mobility Strand (SMS): what is it?

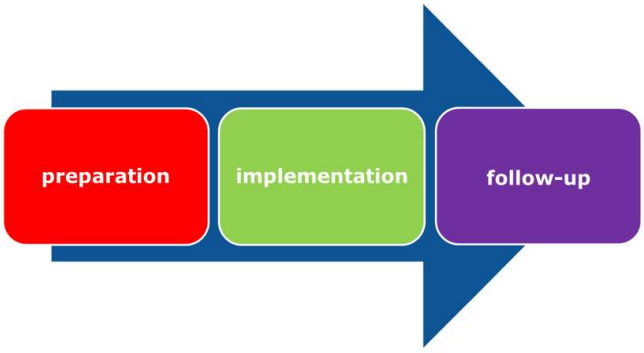
- Additional support to the selected CBHE in order to finance international mobility of students and staff with the studying, training and teaching purposes;
- Mobility with the purpose of studying, teaching or training must be instrumental to the objectives of CBHE.

The students mobility:

- must be registered in a HEI involved in the selected CBHE Project;
- students must be enrolled at least in the second year of higher education studies (for study mobility).

Activities	From Partner C to Partner C	From Partner C to Progr. C	From Progr. C to Partner C	From Progr. C to Progr. C
Study	x	x	x	Not eligible
Traineeship	x	x	x	Not eligible

Main phases of the mobility scheme



Eligible activities for students

Purpose	Duration	Host Organization	Type of activities/targets
Study	Min. 3 months (or 1 academic term) – Max 12 months - including a complementary traineeship period, if planned	Beneficiary HEI	The same student may participate in mobility periods totaling up to 12 months maximum per cycle of study, independently of the number and type of mobility activities: – during the first study cycle (BSc or equivalent) including the Short-cycle (EQF levels 5 and 6); – during the second study cycle (MSc or equivalent – EQF level 7); and – during the third cycle as doctoral candidate (doctoral level or EQF level 8)
Traineeship	2-12 months	Any relevant place (beneficiary or not) in a country involved in the consortium	

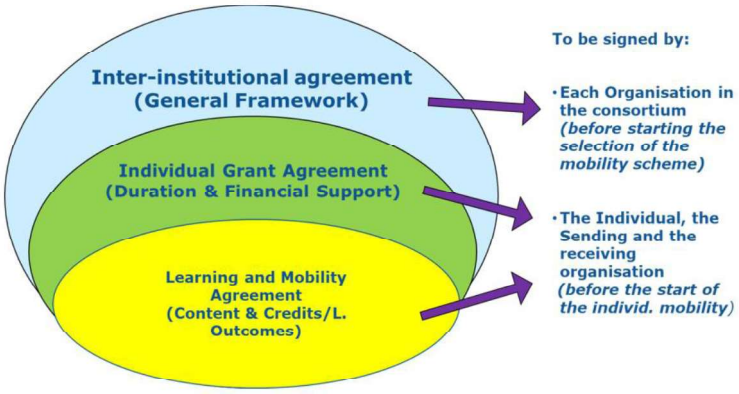
Preparation phase of the mobility scheme

Basic Principles:

- abide by the principles of E+Charter;
- relevant information on selection process and admission and selection criteria must be available to candidates well in advance;
- associate partners cannot benefit from the SMS.

The forms of these documents and the rules for filling them out can be found on the link: *https://ec.europa.eu/programmes/erasmus-plus/resources/programme-guide_en.*

Compulsory documents



The main aspects of the documents presented below.

Inter-institutional Agreement (IIA)

- signed by each beneficiary's organisation before the selection of the mobility scheme (collective or bilateral);

- provides specific provisions on the roles of the organisations, selection procedure, admission/selection criteria, appeal procedures, decision making process, QA measures;

- Template available on the *CBHE beneficiary space*: minimum requirements must be maintened but new provisions can be added.

Define tasks

Inter-Institutional Agreement (IIA)	
Home Organization	Host Organization
- promote and raise awareness; - select the candidates in line with IIA; - provide support in preparation of the individual mobility (visa, administrative question, insurance etc.).	- inform locally; - prepare logistics and support for incoming individuals; - welcome and monitor the activities.

Individual Grant Agreement

Grant agreement contains specific provisions related to:

- the duration of the scholarship;
- the financial support that the students will receive;
- the payment arrangements;
- the insurance requirements during the mobility;
- participants' report;
- other general conditions.

Individual Grant Agreement

Grant Agreement for students	
Learning Agreement for	
Studies	Traineeship
- list of courses with ECTS (or equivalent); - tergeted learning outcomes; - formal recognition.	- knowledge skills; - competences expected to be acquired; - (compulsory/voluntary? Any ECTS?).

Learning Agreement and Mobility Agreement must be: *agreed and signed* by the individual, the Home and the Host organizations *BEFORE departure*

Implementation phase of the mobility scheme

Basic principles:

- pre-financing of the grant must be foreseen for students in order to facilitate the installation process;

- Host organisation and Home organisation have to ensure a constant follow-up and regular monitoring on the individual mobility;

- all mobility details must be encoded in the EACEA Mobility tool.

Follow-up phase of the mobility scheme

Beneficiary organisations involved in the SMS commit to:

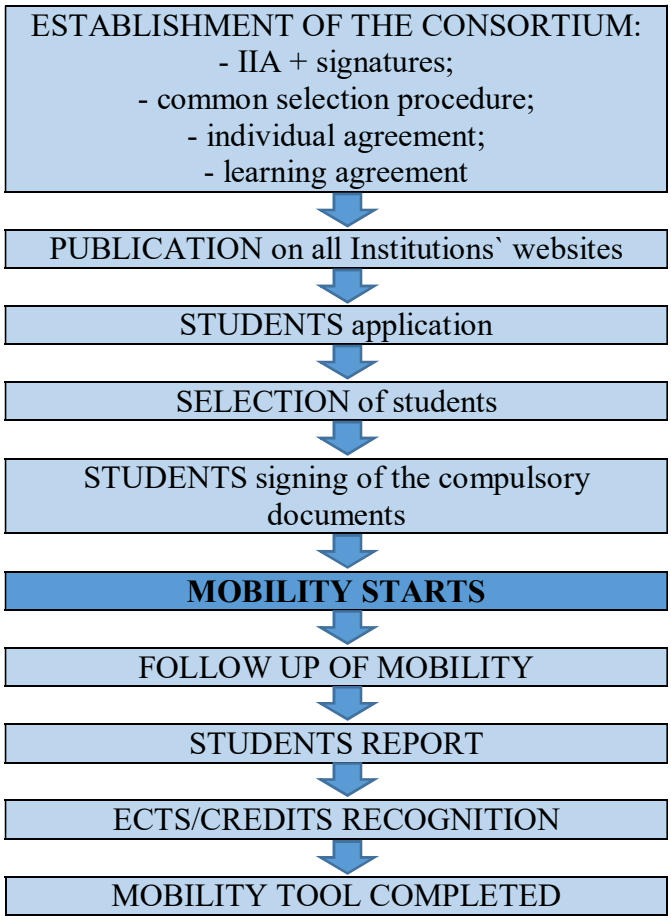
−recognize the ECTS or equivalent credits obtained by the students during the activities carried out and agreed in the Learning Agreement;

−avoid any extension of the study period upon return to take additional exams;

−recognise, disseminate and embed the learning outcomes of the staff mobility (for training purposes);

−solicit the individuals to fill in the Participant Report before the end of mobility (for students) and right after the end of the mobility (for staff).

The main steps for the implementation of the presented phases of mobility can be represented as the following scheme:



Implementation in the framework of SmaLog Project

The project SmaLog foresees mobility activities both for students and staff.

Special Mobility Strand is one of the main part of the project implementation.

The aims of traineeship activities in the EU universities for teachers are as follows:

–to give the opportunity to gain the knowledge of European smart transport and logistics;

–to increase professional and language skills;

–to learn more in-depth from EU experiences;

–to support professional development of teaching with implementation of new methods of studying.

This will allow them to disseminate and implement the experience into scientific, educational process at Home Universities.

Students Mobility activities should allow them increase opportunities from studying and training at EU HEIs and take part in the researching projects and different students' activities.

The results are hands-on skills and knowledges in current smart transport technology, allowing alumni succeed personally and professionally, increase opportunities to become highly qualified specialists in compliance with the EU standards.

As the first step of the student mobility organization were signed the IIAs between UA/GE an EU HEIs.

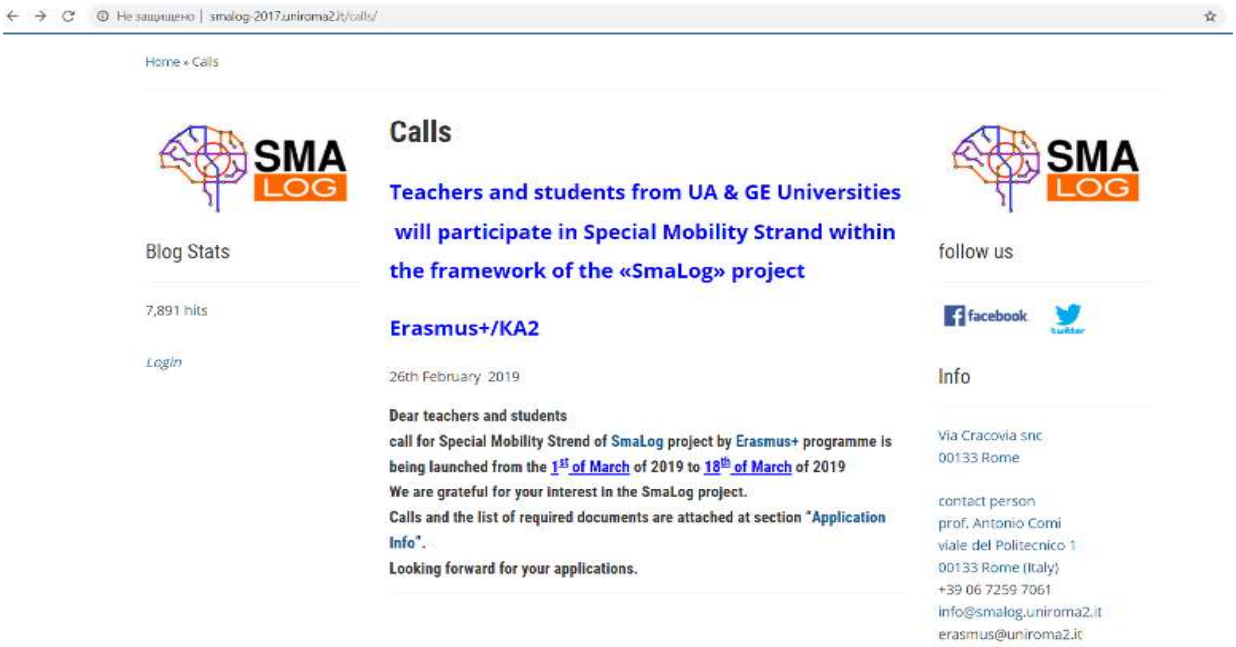
As suggested by experts in assessing the proposal, mobility for students were revised in order to let students' study first at home institutions and then visit EU HEIs. Besides, the opportunity to provide a full semester at EU HEIs was planned. Such revisions were submitted and approved by EACEA.

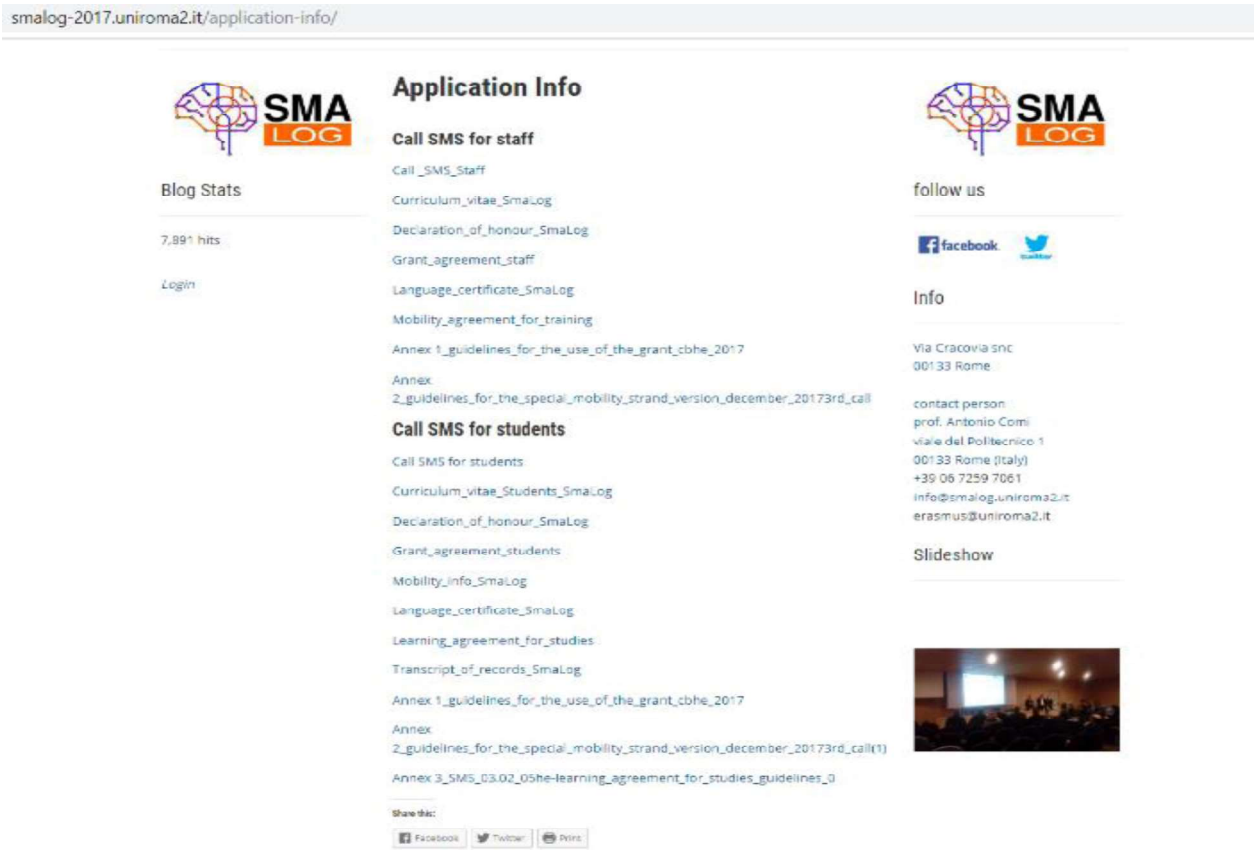
Activities	From Partner C To Partner C	From Partner C To Programme C	From Programme C To Partner C	From Programme C To Programme C
Study	X	X	X	Not eligible
Traineeship	X	X	X	Not eligible

SmaLog

The SMS activities started at beginning of 2019 with the launches of calls for students. Studying Mobility for MSc students from UA/GE Universities: according to the SMS plan from UA/GE Universities, Students from PC were 66 and most of them were spend one full semester in EU HEIs and were able to attend modules at EU HEIs with the recognitions of results and to collect the materials for developing their master thesis jointly with EU tutors.

Selection procedure has been organized at each UA/GE HEIs and common and agreed criteria were used for selection. Application Calls were published on SmaLog website and local sites' UA/GE Universities. The principles of transparency and fairness were respected in all phases of SMS according to the SMS Guidelines of Erasmus+ programme and through publication on the local sites of UA/GE Universities and on SmaLog website.





The final decision is taken by the Evaluation committee of UA/GE HEIs, including Vice-rector, international department representatives, Head of Foreign Languages Department and professor from Home Department. The selection part presupposes giving priority to those with fewer opportunities as foreseen in the original application.

To make the final decision the Evaluation committee takes into consideration the following qualitative criteria: academic merit, motivation, English proficiency (certificate proof), willingness, appropriate attitude to studying and developing interest in research activity, a competitive CV (curriculum vitae) and a recommendation letter from home department.

Selection of candidates for participation in Special Mobility Strand for Students

ERASMUS+ PROGRAMME
Project Number: 585832-EPP-1-2017-1-IT-EPPKA2-CBHE-JP

Master in SMArt transport and LOGistics for cities / SMALOG

Grant Agreement Number 2017-2893/001-001

Selection of candidates for participation in Special Mobility Strand for Students

O. M. Beketov National University of Urban Economy in Kharkiv, 25th March 2019, Kharkiv, Ukraine

Venue: Marshala Bazhanova str. 17, Kharkiv

Kharkiv, 25th of March 2019

STUDENT APPLICATIONS

The final lists of the candidates and the minutes of the Evaluation committee session of are drawn up as a result of the selection procedure, published on the SmaLog project website and local HEIs' websites.

SELECTION RESULTS

Studying the modules with the similar outcomes as SmaLog modules, passing exams and ECTS recognition, mentoring, assistance in collection of information master thesis performance, accommodation support, etc. are the basic quality services offered to the students at the host institutions.

3.2. Credit mobility

Credit mobility − study at EU universities in order to obtain credits from the European system of transfer and accumulation of credits (hereinafter − ECTS) and relevant competencies, learning outcomes, which will be recognized by the Sending University.

Before the mobility can start, the participant, the sending and the receiving organizations, must agree on the activities that the participant will undertake during the period abroad, displayed in LA for Studies/Traineeships.

LA for Studies/Traineeships sets out the study or traineeship programme to be followed by the student, defines the target learning outcomes and specifies the formal recognition provisions. It must be approved and signed by the student, the sending and the receiving organization and the coordinating Programme Country HEI.

LA must include all the learning outcomes the student is expected to acquire during the exchange. For student mobility for studies, LA must set out the educational components to be replaced in the student's degree upon successful completion of the study programme abroad. For student mobility for traineeships, LA must set out how the traineeship will be recognized depending on whether it counts towards the student's degree, or whether it is taken on a voluntary basis (not obligatory for the degree).

All parties signing LA commit to complying with all agreed arrangements, thereby ensuring that the student will receive the recognition for the studies or traineeship carried out abroad without any further requirements.

Learning Agreement include the following parts:

BEFORE THE MOBILITY:

–administrative data;

–educational components;

–language competence;

–signing the LA;

DURING THE MOBILITY:

–exceptional Changes to the Study Programme;

–confirming the Changes;

AFTER THE MOBILITY:

–transcript of Records at the Host Institution;

–transcript of Records and Recognition at the Home Institution;

–Diploma Supplement.

The Guidelines contain more detailed information on how to use LA. This section will focus on Educational components.

The study programme includes the indicative start and end months of the agreed study programme that the student will carry out abroad.

LA must include all the educational components to be carried out by the student at the Host Institution and it must contain as well the group of educational components that will be replaced in his/her degree by the Home Institution upon successful completion of the study programme abroad. The aim is rather that a group of learning outcomes achieved abroad replaces a group of learning outcomes achieved abroad replaces a group of LO at Home Institution.

In countries, belonging to the EHEA, an academic year of full-time study is normally made up of educational components totaling 60 ECTS credits. It is recommended that for mobility periods shorter than a full academic year, the educational components selected should equate to a roughly proportionate number of credits (or equivalent units in countries outside the EHEA).

Home Institution should indicate the group of educational components counting towards the student's degree that would normally be completed at Home Institution and replaced by Study Programme at Host Institution corresponding to the total number of ECTS credits (or equivalent).

The European Commission encourages institutions to embed mobility windows in their curricula.

Implementation the Credit Mobility in the framework of the SmaLog Project

The provided below 5 basic steps define Credit Mobility preparation arrangements:

- *the first step:* the curriculums of the MSc programmes, academic plans of the Home and Host Universities were studied in detail and compared to determine the Educational components and the timing of mobility;

- *the second step:* development of proposals regarding the type of the possibility activities and their approval;

Purpose	Type of activities
Studying	1) Studying the Modules corresponding with SmaLog Curriculum in order to recognize the LO; 2) Professionally focused English language learning
Traineeship	Involvement students in the researching work, thesis (university, enterprises, depending on theme, directions etc.)

- *the third step:* preparing and signing the Grant Agreements and LA;

- *fourth step:* preparation and approval of an individual student's study plan in accordance with the internal regulatory documents of the Home university (Regulations on academic mobility; Regulations on the organization of the initial process and etc.);

- *fifth step:* support and counseling of students during the mobility, cooperation with International Departments of Host universities (EU HEIs), European countries consulates.

3.3. Credit recognition

After the mobility, the Host Institution should send a Transcript of Records to the student and to the Home Institution within a period stipulated in the IIA (normally within five weeks after publication/proclamation of the student's results at the Host Institution). It can be provided electronically or through any other means accessible to the student and the Home Institution.

The Transcript of Records from the Host Institution should refer to the educational components. Grade distribution information should be included (web link or annex).

The actual start and end dates of the study period should be included according to the following definitions:

- the *start date* of the study period is the first day the student has been present at the Host Institution. For example, this could be the start date of the first course, a welcoming event organized by the Receiving Institution, an information session for students with special needs, a language and intercultural course organized either by Host Institution or other organizations (if the Home Institution considers it relevant for the mobility);

- the *end date* of the study period is the last day the student had to be present at Host Institution, not his actual date of departure. This is, for example, the end of exams period, courses or mandatory sitting period.

As soon as Host Institution provides the Transcript of Records, Home Institution should recognize the student's academic outcomes successfully completed at Host Institution. Home Institution should fully recognize the total number of ECTS credits (or equivalent) and count them towards the student's degree, without the need for the student to take any further courses or exams.

For recognition the student's academic outcomes in the Host Institution realized according to the Recognition outcomes procedure, based on the internal regulatory documents of Home Institution.

Diploma Supplement: the information contained in the Transcript of Records from the Host Institution should also be included in the Diploma Supplement produced by Home Institution (at least for Home Institutions located in Programme Countries), with the exact titles of the components that the student has followed abroad.

Recognition outcomes procedure in the framework of the SmaLog Project

After the mobility, Host Institution sent a Transcript of Records to the student and to Home Institution referring to the educational components agreed in the LA.

UA/GE HEIs recognize the total number of ECTS credits based on the decisions of the commission as part of the Recognition outcomes procedure as evidenced by Minutes and Reports.

Diploma Supplement: Recognition results were included in the Diploma Supplement guided by decrees and regulations of the UA/GE Ministry of Education.

Useful resources

Erasmus+ Programme Guide:
https://ec.europa.eu/programmes/erasmus-plus/resources/programme-guide_en

All guidelines & supporting documents:
https://ec.europa.eu/programmes/erasmus-plus/resources/documents/applicants_en
https://ec.europa.eu/programmes/erasmus-plus/resources/documents/applicants/learning-agreement_en

FAQs for HEIs:
https://ec.europa.eu/programmes/erasmus-plus/opportunities_en

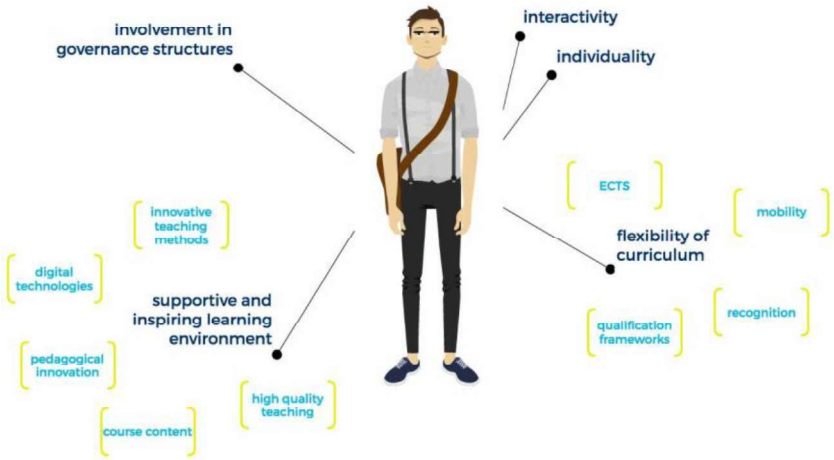
FAQs for Students & Staff:
https://ec.europa.eu/programmes/erasmus-plus/opportunities/organisations/learning-mobility/higher-education_en

4. INNOVATION IN TEACHING METHODS APPROACHES

4.1. Student-Centred Learning

Student-centred learning (SCL) is an approach to education, which aims at overcoming some of the problems inherent to more traditional forms of education by focusing on the learner and their needs, rather than being centred around the teacher's input. This approach has many implications for the design and flexibility of curriculum, course content, and interactivity of the learning process and is being increasingly used at universities across Europe.

The concept of SCL was initially a theoretical model defined as such by pedagogy and education researchers, though attempts at empowering the learner to enhance the educational process have probably always existed wherever educators have strived to improve and reform.



In original usage, SCL aims to develop learner autonomy and independence by putting responsibility for the learning path in the hands of students by imparting to them skills, and the basis on how to learn a specific subject and schemata required to measure up to the specific performance requirement. Student-centered instruction focuses on skills and practices that enable LLL and independent problem-solving. SCL theory and practice are based on the constructivist learning theory that emphasizes the learner's critical role in constructing meaning from new information and prior experience.

Student-centered learning puts students' interests first, acknowledging student voice as central to the learning experience. In a student-centered learning space, students choose what they will learn, how they will pace their learning, and how they will assess their own learning by playing the role of the facilitator of the classroom. This is in contrast to traditional education, also dubbed "teacher-centered learning", which situates the teacher as the primarily "active" role while students take a more "passive", receptive role. In a teacher-centered classroom, teachers choose what the students will learn, how the students will learn, and how the students will be assessed on their learning. In contrast, student-centered learning requires students to be active, responsible participants in their own learning and with their own pace of learning.

Usage of the term "student-centered learning" may also simply refer to educational mindsets or instructional methods that recognize individual differences in learners. In this sense, student-centered learning emphasizes each student's interests, abilities, and learning styles, placing the teacher as a facilitator of learning for individuals rather than for the class as a whole.

One of the most critical differences between student-centered learning and teacher-centered learning is in assessment. Student-centered learning typically involves more formative assessment and less summative assessment than teacher-centered learning. In student-centered learning, students

participate in the evaluation of their learning. This means that students are involved in deciding how to demonstrate their learning. Developing assessment that supports learning and motivation is essential to the success of student-centered approaches.

Student-centered learning environments have been shown to be effective in higher education. They have been defined specifically within higher education as both a mindset and a culture within a given educational institution and as a learning approach broadly related to, and supported by, constructivist theories of learning. They are characterized by innovative methods of teaching which aim to promote learning in communication with teachers and other learners and which take students seriously as active participants in their own learning and foster transferable skills such as problem-solving, critical thinking, and reflective thinking.

Benefits of a Student-Centered Classroom:

- Education becomes a more shared experience between the instructor and the students, and between the students themselves;
- Students build both collaboration and communication skills;
- Students tend to be more interested in learning when they can interact with one another and participate actively in their own education;
- Members of the class learn to work independently and to interact with others as part of the learning process.

Drawbacks of a Student-Centered Classroom:

- With students free to interact, the classroom space can feel noisy or chaotic;
- Classroom management can become more of an issue for the teacher, possibly cutting into instructional activities;
- With less focus on lectures, there can be a concern that some students may miss important information;
- Though collaboration is considered beneficial, this approach may not feel ideal for students who prefer to work alone.

Because of the many benefits associated with an academic environment geared towards student learning and success, universities are increasingly implementing elements of a student-centred approach, which allow and encourage students to be actively involved in the creation of their learning experience. This focus, which also needs to be understood in the context of the recently broadened and globalised access to higher education, acknowledges that there are different types of students requiring individualised education. In this sense, SCL is a concept that takes into account the student as a person with a unique background while also ensuring the student's active involvement in shaping his or her own learning path.

A teaching environment geared towards student learning is one in which the teacher facilitates the student's learning. Learning is a responsibility shared between the two and is achieved, for example, through methods such as problem- or research-based learning. Yet ensuring the most effective and meaningful path of learning also encompasses institutional responsibilities such as curriculum design, support services and appropriate learning facilities.

SCL is often characterised by small group work, but a mix of various methods involving both student- and teacher-centred approaches to learning and teaching is common and successful in providing high-quality education. It is the responsibility of institutions to ensure a contextually appropriate selection of pedagogical methods as well as a continuous review thereof to provide students with the most adequate modes of delivery

This concerns assessment methodologies as well, with assessment needing to be formative and tailored to the individual learning methodology, i.e. including regular feedback to allow both teacher and student to closely monitor the learning progress and reflect on it. In SCL, both the learning process

and its assessment are defined through intended learning outcomes, which are based on the skills and knowledge needed by the future graduate.

Finally, SCL is often linked to student participation in governance and other decision-making processes. While student participation is not a dominant aspect of SCL – and is thus not further addressed in the following chapter – it certainly is a logical consequence of it. It reflects the core notion of students as partners in the learning process and having an active role in developing their learning paths, as well as the recognised benefits of involving all stakeholders in institutional processes in order to ensure, e.g., meaningful curriculum design. Therefore, to ensure that the learning environment is truly student-centred and fit-for-purpose, institutions are not only encouraged to design their education provision with a learner-centred perspective in mind, but also to make sure that students are involved in these decision-making processes.

All of these ways to foster a student-centred education provision are reflected in various reports and policy statements and suggest a common basis at the policy level of what SCL is and how it supports student success. At the institutional level, however, there remain challenges in translating this into practice [12].

Student-Centered Learning in the Online (MSc) Classroom

Many teachers strive to implement a blend of teacher-centered and student-centered styles – sometimes within the same classroom – based on their own instincts, research and experience.

The student-centered approach to education also has relevance for teachers who choose to develop a deeper understanding of the art and science of education by pursuing a master's degree.

For example, in contrast to the more teacher-centered approach that is common to on-campus programs, online master's degree programs tend to place more emphasis on interacting with one's fellow degree candidates across the country through the learning portals that are an essential component of the online academic experience.

Potential challenges of the Student-Centered Approach (and how to solve them)

SCL CHALLENGES	SOLUTIONS TO THOSE CHALLENGES
Noisier, more chaotic learning spaces	Embracing the idea that noisier learning spaces are an acceptable and manageable trade-off for HEIs filled with engaged, productive students
The possible need to devote more time to classroom management	Establishing norms that allow students to take responsibility for managing their in-class projects and activities
Uneven distribution of knowledge among students taking the same classes	Providing individual students enough time to learn at their own pace
Students who don't adapt well to the switch to an SCL-based environment	Adopting SCL techniques gradually rather than all at once

How to Create Student-Centered Classes

How can administrators and teachers start creating student-centered classes in their HEIs? A sequential list of some of the most critical steps to take includes:

1. Giving students introductory autonomous assignments and helping them set their goals for those assignments;

2. Helping students become acquainted with their preferred ways of learning new material;

3. Becoming more responsive to students' areas of interest and passion;

4. Gradually increasing the number of control students have to set their assignments and learning agendas;

5. Having teachers shift from a leading role to a facilitating and resource role for student-selected activities gradually;

6. Creating a physical (or virtual) class layout that makes it easy for students to collaborate;

7. Asking students to start gauging their learning accomplishments rather than relying solely on the results of standardized tests.

The shift toward increased student decision-making can take a variety of forms. However, all SCL programs tend to share some features in common. For example, they emphasize making the educational process more meaningful to today's students. SCL programs also emphasize using rigorous assessments to gauge student performance by including both teachers and students in the assessment process.

SCL allows greater flexibility to work in small groups or learn remotely. And the flexibility that comes with SCL is increasingly important as HEIs adapt to the Coronavirus pandemic and its shift toward remote learning.

4.2. Teacher-Centred Learning

Teacher-centered learning (TCL) is also known as the Instructor-Led Learning. This teaching method adopts a more authoritarian tone and style than SCL, where students are passive receptacles of the knowledge being dictated. The teacher is regaled as an expert or master of the subject matter, and there is little to no involvement of the student in the learning process. Didactic lectures and expository monologues are used to impart the lesson, followed by a question and answer session. While still used in many parts of the world, this teaching style is quickly waning in popularity as it is considered to be too "close-ended".

Benefits of a Teacher-Centered Classroom:

- Order in the class! Students are quiet as the teacher exercises full control of the classroom and activities;
- Being fully in control minimizes an instructor's concern that students may be missing key material;
- When a teacher takes full responsibility for educating a group of students, the class benefits from a focused approach to research, planning and preparation;
- Teachers feel comfortable, confident and in charge of the classroom activities;
- Students always know where to focus their attention — on the teacher.

Drawbacks of a Teacher-Centered Classroom:

- This method works best when the instructor can make the lesson interesting; absent this, students may get bored, their minds may wander and they may miss key information;
- Students work alone, missing potential opportunities to share the process of discovery with their peers;
- Collaboration, an essential and valuable skill in HEI and in life, is discouraged;
- Students may have less opportunity to develop their communication and crucial-thinking skills.

TCL is fairly low-tech, often relying on the use of textbooks and workbooks instead of computers. Assessments are in many cases only carried out as summative and not formative evaluations and they rarely address qualitative issues of the learner's progress.

The differences between TCL and SCL are described in the table below.

TCL	SCL
Focus is on instructor	Focus is on both students and instructor
Focus is on language forms and structures (what the instructor knows about the language)	Focus is on language use in typical situations (how students will use the language)
Instructor talks; students listen	Instructor models; students interact with instructor and one another
Students work alone	Students work in pairs, in groups, or alone depending on the purpose of the activity
Instructor monitors and corrects every student utterance	Students talk without constant instructor monitoring; instructor provides feedback/correction when questions arise
Instructor answers students' questions about language	Students answer each other's questions, using instructor as an information resource
Instructor chooses topics	Students have some choice of topics
Instructor evaluates student learning	Students evaluate their own learning; instructor also evaluates
Classroom is quiet	Classroom is often noisy and busy

4.3. Innovative teaching tendencies

Over the years, there have been visible changes in teaching style. Opposite to the memorization and same old recitation practice to teach the students, now with modern teaching methods (MTM), interactive methods of teaching have been introduced, and its result can be seen. This is an education reform, which provides an entirely different angle of teaching and learning because MTM do not treat all students at the same level of their understanding ability, unlike the conventional method of teaching. Rather than the only teacher based, MTM focus more on questioning, demonstration, explaining, practical, collaboration methods, and are more activity-based.

Reasons to Introduce Modern Teaching Method

In recent years, the scope of knowledge in the field of science and technology has dramatically increased, and human's ability to adapt to new knowledge in science and technology has also increased. So, there is an immense need for innovative and creative minds to explore unknown and unrevealed areas of different fields. To cope up with the modern world and the knowledge-driven era of technology, adopting modern ways are the only means to survive.

So, the students should be taught in a manner to tackle the 21st century, which is technology-driven time and which requires creative and innovative minds for the progress of individuals, society, and nation. The students should be introduced with MTM and are provided sufficient knowledge so that they can create opportunities for themselves and others.

Teachers still use a conventional chalk-talk method in the Classroom to teach students who can provide only basic knowledge of science and other subjects. Their approach can no longer be used as this is outdated, is with limited scope, and has been failed both at the nation and personal level.

If teachers teach with MTM instead of traditional impractical methods and present science lessons in a more proper scientific way, then many problems, including unemployment, can be overcome. All this can be achieved by providing a strong pillar to the HES. It requires an instant review of the BST curriculum, and it is the reason why MTM are introduced.

*Why modern teaching is the need of the hour**?***

Education is the need of the hour as it creates a literate society and in the process of educating the society, motivation and instructions are very crucial and teachers, guides and administrators are responsible to motivate learners. The rate of literacy will be leveled up by providing education to the most parts of society.

However, with time being changed to an extent, learners demand new techniques and methods to gain knowledge which specializes them not only in theoretical study but ensures them to provide practical knowledge, sharpen their skills, and make them educated to face any kind of challenges. MTM are the only way to meet the requirements of modern times.

Relevance of Modern Teaching	Revolution in the field of science and technology demands great ideas and extensive effort to deal with any kind of circumstances coming in the way of development. All the load is on the little shoulders of learners. So, it is vital to give students knowledge and improve their skills from the very beginning
Moving from Reciting and Memorizing to Experimenting and Experiencing	Memorizing and reciting was the way of teaching which definitely helps to clear the exam and to acquire the certificate but it does not help further. Only experiencing and gaining practical knowledge will be helpful for further studies and life
Concept of Innovation	Different MTM aim towards creativity and innovative thoughts. It motivates learners to not follow conventional things but come up with innovations. That's the reason why modern teaching is laced with technical gadgets which can help learners to share their innovation and creativity. Also, innovation in teaching methods plays an important role to improve the quality of education which is an endeavor this time

Characteristics of Modern Teaching Methods

The MTM help to build or develop a productive understanding of basic science and technology (BST). Hence, the elements of contemporary teaching methods include:

1. Learner-centered

One of the essential characteristics of the MTM in basic science and technology (BST) is it is learner-centred. It focuses on learners while using or applying during classroom and laboratory lectures. The teacher acts only as a guide, and all the learning process involves learners. Learners significantly appear as a dominator in classroom interactions.

2. Task-Based or Activity-based

The teacher or guide of BST organizes activity or task and engages students to learn through this way. Hence it is an activity-based or commission-based. Students are offered or asked to take part in classroom interaction through these interactive activities.

3. Resource-Based

BST teachers should be resourceful. They should collect and distribute all the required study material to the learners for their learning or to understand the topic clearly. The resources can be collected from the HEI environment or any other place where it is available. Also, a learner can be the source to bring study material or resources from their end.

4. Interactive in Nature

One characteristic defines the MTM as very interactive. The teacher asks the students to form small groups or work as individuals to perform the learning tasks and come up with the desired results. It helps them to gather knowledge from one another. Students learn to work together and a sense of cooperation. It also works in their favour when they step out in the outer world.

5. Integrative in Nature

One of the vital characteristics of MTM is it is integrative. Teachers link topics of one subject, e.g., social science topics like drug use, domestic violence, safety, pollution, food distribution, crime etc. to other issues and make it integrative. By this, a learner can gain knowledge of more topics studying one.

6. Peer Collaboration

MTM not only encourage students by allowing them to present their ideas or initiative by noticing their responses, studying their research, and allowing them to answer during interaction in BST classes but also selects students based on interest, needs, and feelings. Through Instructional activities, students learn to work cooperatively, and they appreciate their competitors' work as well. In the BST curriculum, learner's interests are considered most important, and they are guided towards their goals and careers.

Modern Teaching Methods

Like other fields, the face of education has also evolved drastically over the period. Earlier, teachers were the only means to create a bridge between education and learners. They were using conventional pedagogical methods to explain the topic or to provide notes. However, modern education sees a vast scenario which encourages learners to study profoundly and study to satisfy their curiosity. In recent years, we are getting introduced with different MTM, and the introduction of technology along with innovative ways to teach has brought a revolution in the education sector. So, let's discuss which new teaching methods are.

Following are the MTM:

Collaborative Learning

Earlier, when students were asked to revise the topic or syllabus during an examination or regular days, they used to revise the syllabus in isolation or at home. This practise was widespread in traditional teaching methods. To deal with this issue or provide a more useful platform for students, HEIs are coming up with collaborative learning. In this MTM, teachers form a group of students where they can solve their problem, debates on topics, and clear their queries. This helps in developing social

skills and allows students to understand the subject faster working in a team. They will be able to meet different personalities and can get a genuine review of their work.

Students present their ideas and expect a response when they are in group learning. It allows them to exchange their creativity and gain more knowledge. In return, it helps them to learn to face healthy criticism and cross-questions. So, HEIs management should choose to take up a collaborative method of teaching to teach their students. They just need to make a few changes in the layout of the classroom. Replace desks to whiteboard surfaces. So, the groups can work together with ease.

Spaced Learning

Spaced learning is one of the MTM, which is being followed by teachers. In this method, teachers repeat a lesson multiple times, basically until the students understand entirely. However, the teacher repeats the course with two 10-minute spaces (break) in-between the lessons.

The gap is meant to refresh the mind by playing physical activities or mindfulness techniques which prepares them for the next session of the same lesson. This method gives the students intervals to inherit the knowledge and create connections between learnings. Before moving forward to another chapter, this method prepares the students with basics.

Flipped Classroom

Flipped Classroom is a well-known term in the pedagogical method. In this method, the teaching procedure takes place in a flipped manner. As unlike traditional ways, students study new material or content at home by themselves and practice the same at the institution. The students practice this method at home by watching a video tutorial, search online, or work on the content usually shared by the teacher. They do not need to complete the homework at home. Instead, they end it at the HEI.

Through the practice of flipped Classroom MTM, students get enough time to grasp the topic, unlike HEI where they get limited time to understand the content. If necessary, they can work more on one issue.

Students prepare themselves with the content before arriving in HEI, and if they face any doubt, they can discuss it in the Classroom or ask the concerned teacher. They can also suggest their ideas related to the content and share it with other groupmates. Moreover, there is another advantage of this MTM that students would not have to suffer due to their sickness. Sick days won't interrupt their learning.

Self-learning

Curiosity pushes the learner to learn new and more always. It drives the learners to learn and memorize large spaces of the text that they will either miss gratefully or forget immediately. Through their curiosity, students get motivated to explore the subjects they are interested in. Teaching students to operate the internet and find results themselves helps them to be self-dependent and gives them a deep understanding of the content.

A teacher should allow the students to bring new ideas and work on it for the development of their brain and ability to work alone. This MTM plays a significant role in learners' period of education.

Gamification

Teaching through games is one of the essential modern teaching methods that has been in use under modern teaching ways. The significance of Gamification in teaching has mostly been seen in the elementary and preschool system. Learning through playing games won't be even realized by students. It motivated students as well and proved effective not only to the students of preschool but of any age.

The responsibility of teaching through Gamification is of teachers as they should plan or design projects that will be suitable for the students of their respective age. They should incorporate attractive measures to connect the students for a longer time and keep their interest alive. Teachers can also take help of the online platform under Gamification. Teachers can organize online quiz, puzzles or brain games. This MTM is a fun learning method to teach.

VAK teaching

VAK is a MTM whose effects can be seen clearly. We divide learner into three categories: Visual, Audio, and kinesthetic (movement). One needs to recognize to which category they belong to or the teacher must know to which category her students relate to.

In VAK, V is visual means seeing the data, A is Audio means gathering information by hearing the data, and K is Kinesthetic means feeling the data. A teacher should keep the category of students in kind while teaching because some students catch the information by seeing, by hearing or by feeling. So, they should present the same material in different ways.

The VAK teaching method was introduced in the 1920s to help children with dyslexia. However, its impact is more effective in the modern era. In the time of the internet, watching and learning through videos has become a popular new medium of teaching. Students grasp fast when they see, hear or feel instead of reading the material. And also, a learner is not limited to any one of the media as they can use even all three mediums of instruction.

Crossover Learning

The not-so-common MTM is Crossover learning which uses both formal and informal teaching and learning environments. It is one of the perfect ways to give the best education to learners. Crossover learning effectively engages learners and provides authentic yet innovative results.

A formal setting is a traditional setting, i.e., Classroom to provide education. While, the informal environment of teaching is museums, seminars, and after-school places. Schools and colleges teach with content, study material and use everyday experiences to add knowledge. On the other hand, informal learning generates curiosity and interest and increases understanding by asking questions to their teachers.

Teachers should introduce new queries or questions in the formal setting and answers for which students should try to find in informal settings such as by exploring that question on their museum visit. The learners can take notes or collect pictures as their data and produce them as the information once they backed in the Classroom. They can share collected information with other groupmates and can discuss it for better results.

Advantages of Modern Teaching

Along with the upgrades made to the student educational system, the face of teaching too is witnessing a transformation in this 21st century. Before you implement the modern teaching techniques, it is essential to know more about the advantages and benefits they bring to your system. Therefore it makes the maximum utilization of the services possible at a minimal cost. Some significant advantages of Modern Teaching is described below.

Cognitive Thinking Skills	The modern teaching system doesn't entirely rely on «spoon-feeding» techniques, which used to be a part of the ordinary teaching system. The current methods are wired to develop the cognitive thinking skills of the children, which in terms of the standard teaching system, out of the question. The cognitive skills can be explained as the primary skills associated with the functioning of the brain. From the ability to read, the ability to learn and memorize are a part of the cognitive skills which lay connected to the brain. Strong cognitive skills of the students reflect in their decision making and problem analytical skills, contribute to their IQ growth and also plays a useful role in improving memory power.
Bringing Prefrontal Cortex into Life	The prefrontal cortex of the brain is usually most affected by uncontrollable stress and depression. This part plays a significant role in the speech outcome, behavioural outcome, expressive outcome, etc. which are essential functions of the brain. It is also useful with the memory boost and thinking abilities of an individual. The modern teaching techniques, like said, focuses more on the core thinking abilities and hence activates the perfect mechanism of the prefrontal cortex. The functions of the prefrontal cortex are considered superior, and triggering them would be the best-explored advantage of these modern teaching techniques. Therefore it is an obvious and one of the most significant merits that come along with the implementation of modern teaching methods.
Exploring Things	Exploration of things where the interest lies in is an essential part of personal development. The process also provokes self-learning and makes sure it is directed in the right amount. The practice of

	the MTM methods provokes this same set of interests which are to be explored by the students with proper and enough assistance from the teachers. Exploring the things on one's own is one of the most productive initiatives by an individual and the maximum possible support from an efficient teaching system makes sure that the process is fruitful and dynamic. The MTM believe in providing them with enough freedom, flexibility and facilities to explore their interests.
Developing Unique Patterns of Learning	Learning is the primary objective of teaching, and the methods used for education initiate its own purposes for making the learning process much more productive and beneficial. Therefore one of the primary objectives of the strategies implemented according to modern teaching focuses more on developing unique patterns of learning. The process or the most efficient methods of learning differs a lot between different individuals, and most importantly, this is where the MTM apply to its full potential. By developing unique and tailor-made patterns of learning, the techniques of modern teaching make sure that the individual minds are adequately catered with the right way and methods of knowledge which will eventually make their learning process productive to its core.
Application-based Skills	The application refers to the practicability of the skills, and these are directly based on the actual practice of the skills learned and acquired from the teaching process. The MTM employ a completely different approach, a variant one from the old school theoretical practises. These mostly focus on the applicability of the skills and the individuals learning and acquiring practical experience of the same. Application-based education is one of the most influential and productive types of education systems compared to theoretical studies. Since the old teaching methods had limitations with practical knowledge, they relied mostly on the theoretical part. The implementation of the modern teaching techniques automatically drives out the unnecessary need for the theoretical part, substituting it with the application based skills.
Learning Relevantly to the Increasing needs	One of the significant purposes of education is to make the individuals competent enough to face the changing environment, and for that, they need to be efficient enough. The modern HES highly focuses on this and makes them efficient enough to tackle the adversities of the increasing needs, which are relevant to the environment.

Difference between Traditional and Modern Teaching Methods

For centuries, there had only been one method of teaching in practice as a teacher explains a lesson and students memorize and recite it as their learning. This is called the traditional way of teaching, which was an obstacle between students and their innovative thinking. Then they continue lacking in decision making and problem-solving skills. On the other hand, MTM are student-based and dedicated to more practical approaches.

Society is divided into three groups based on teaching methods. One who still is in support of traditional methods of teaching. The second group is in favour of MTM. At the same time, the third one favours both conventional and MTM. The third group believes in the combination of both the methods of teaching.

A nation's growth is dependent on sound education and strengthened systems. Even in modern times, when there are many means available to provide education, we are still in a phase when we give more weightage to the traditional method of teaching. But for the best outcome, there is a need for a combination of both conventional methods of teaching and MTM. People who believe that MTM are better to face criticism of people who support traditional methods of teaching. However, there must be a proper balance between the use of traditional and MTM. Both ways should be imparted into education.

Being in the 21st century, there is an urgent need to introduce technological, economic, and cultural force in the education system at all levels which alter the core of the traditional educational system. Educators must figure out the ways best for learners.

However, both traditional teaching methods and MTM have their own importance. Both are good at their period. So, declaring any way best is not possible. It actually depends on the learner and their interests. Traditional teaching methods are better for learners who want to learn basics, religions, and customs. At the same time, modern education is for learners who have an interest in science or mathematics. Although seeing the contemporary scenario, MTM are best suited. It keeps in touch with the whole world and takes the students at the levels where everyone is equal.

Integration of Modern and Traditional Teaching Methods

So, the measures to combine the methods are suggested below.

To explain complicated mathematical sums and solve chemistry problems, there must be a blackboard in the Classroom. And, to instruct a theoretical topic, teachers should use an LCD projector. So, both Blackboard and LCD projectors could be used.

By using both traditional and MTM, science and engineering like subjects can be explained very well in the classroom. Teachers can take the help of blackboards to explain the theory. At the same time, they can use videos or PowerPoint presentations to describe the procedure.

First, teachers should give lectures on a topic under traditional methods of teaching and then incorporate MTM to revise the subject, discuss it, problem-solving sessions etc. The approach of combining both forms will be proved helpful if applied in a proper way.

Methodologies That Every 21st-Century Teacher Should Know

The modern HES prevailing in this 21st century requires advanced methodologies that'd create a unique and progressive space for them compared to the older educational methods. The 21st-century teaching methodologies have developed new horizons of learning which the participants should explore.

As a participant of the same advanced education system, the teachers should also take the practical methodologies and the perks of the same into consideration. For that, they need to know and clear about specific methods.

Flipped Classroom

One of the Gen-Z methods widely used in the coming age education system is the idea of Flipped Classrooms. This is a popularly accepted method which has also proven to be productive and incredibly efficient for the development of the students. Even this method is regarded as one of the leading techniques which the teachers, implementing MTM should consider.

According to the idea of the flipped classroom technique, the teachings methods are reversed as the word suggests. The students are asked to study from their home itself with necessary instructions given, and the Classroom is converted into a centre of practical education and that only. Therefore, the entire education method is reversed to make it more fruitful and productive.

Project-Based Learning

In the older methods of the education system, the projects were merely a part of the curriculum which appeared for namesake. The plans were thoroughly focused on theoretical and fundamental education. But the idea of project-based learning makes more sense in the 21st century HES. Also, this is something which the teachers should consider as a part of the modern HES.

The projects refer to the tasks given to the students entirely associated with the field they are pursuing. They are provided with practical case studies which require the application of their skill set and knowledge to provide an optimum solution to the problem. These are challenged through the types of projects included in the project-based learning system.

Cooperative Learning

The idea of cooperative learning or collaborative learning, just as its name suggests, is based on the concept of teamwork and collective efforts. It brings in the importance of being a part of the team and how the individual actions are adequately guided towards the achievement of the organizational goals.

It is more of a value-based approach where the students understand the role played by each of their team members in completion of the task. Each member of the team is assigned with a particular set of activities which they need to accomplish before the deadline. They all work towards a common organizational goal which needs all their efforts for achieving the same with perfection.

Gamification

The video games have always been an element of attraction among the students, and the past has proven that the education sector can make efficient use of these video games to ensure an excellent educational platform for the students. Such games based on education are popular among the students, which helps in teaching them about different stuff.

The teachers can make use of such interactive educational games for making the students develop their interest in studies. There are a variety of platforms available for them which arouses their interests in particular fields. Careful and appropriate use of the games on education will create a tremendous amount of interest and enthusiasm among the students to learn about the content and apply them in the virtual platforms as a practical activity.

Problem-Based Learning

The next comes in the problem-based learning, which comprises a whole set of activities under the tag of problems and providing solutions which will enhance the skills and knowledge of the students to a greater extent. This will also provoke their enthusiasm level and initiates the problem-solving aspect of the thinking in their minds. According to the problem-based learning system, the teachers allow the students with a particular set of problems that will challenge their learnings and the acquired skills so far. The students need to solve the problem using their intelligence, and this also serves as an efficient technique which the Gen-Z teachers need to follow.

Design Thinking

Education provides all the powerful platforms that promote Innovation and creativity inside the students. Therefore design thinking and its purpose is nothing else than the promotion of innovative ideas and creative activities in the minds of the students. This will give them a newfound enthusiasm to enter into the curriculum and bring up their best. The teachers who are about to apply the modem teaching methods can make use of the design thinking approach in order to promote innovative ideas among the students. They can be offered with a particular set of questions or problems that triggers their creative mindset and forces them to pull out some successful innovative solutions to the issue.

Thinking Based Learning

Undoubtedly the older educational system made use of the methods which froze the need for practical thinking and focused more on the theoretical and by hearting approach towards the learning. The idea of thinking based learning has proven to be far more efficient and flexible than the former and a successful one in a variety of aspects.

Under the thinking-based learning approach, the students are offered with a set of questions which will challenge their memory level or similar to the design thinking method, making them focus more on the analytical and logical approach to face the problem. The solutions will be practical, unique, customized to the conditions and something which is totally not related to the textbook solutions.

Competency-Based Learning

The competencies refer to the tactical skills of the students which they want to learn and acquire, are in the process of learning and developing or the ones which they have already accomplished. This type of learning focuses on the benefits provided by the acquirements of core competencies or the skills they prefer to learn and how it is delivered to the students.

Conclusion

After a detailed study of different teaching methods, it`s impossible to determine which pedagogical way of teaching is better. Both traditional teaching methods and MTM have their pros and cons. They are similar but also different from each other MTM should consider conventional methods of teaching as its base and learners should not neglect it completely while incorporating the new ones. However, MTM are suitable for the current century to cope up with surroundings and environments.

Teachers are introducing different innovative ideas to explain the content to learners. Also, it is the responsibility of teachers to teach students with suitable and modern methods. It is a teacher who plays a vital part in students' success. So, it becomes the duty of a teacher to take a step towards accepting modern methods of teaching. To provide a sound education, there should be an amalgamation of a skilled teacher and innovative ways of teaching. So that students will be ready with not only theoretical knowledge but also with practical experience of subjects to face the world and compete against their competitors.

In short, the inclusion of MTM in this time is necessary as it opposes the idea of traditional forms of repetition and memorization of the syllabus to educate students. To develop decision-making skills, problem-solving skills, and critical thinking ability, MTM are best suited. The new ways of teaching make students more productive and encourage them to collaborate. Both methods are effective but which will be done during this time is the question, and clearly, the importance of MTM can be felt clearly [13].

5. DISTANCE LEARNING

5.1. Distance learning: general approaches

In recent years, there has been an increasing interest in distance learning (DL) in higher education. Information Communication Technology (ICT) (communication devises like radio, television, cellular phones, computers, and satellite system) is a tool that can be used in DL for addressing challenges in teaching and learning.

Currently, students may use various technologies for e-learning (all forms of learning/teaching through ICT) in their chosen settings, while some of the assigned technologies may sometimes be neglected in favor of their own mobile technologies. Whereas technologies-in-practices are seen to be changeable over time as students' knowledge, experiences, contexts, and technology itself might undergo changes through human action [14].

The distance learning definition may seem confusing at first, but it's quite simple, and it may even be the right kind of education for somebody.

What Is Distance Learning?

Merriam Webster defines DL as, "a method of study where teachers and students do not meet in a classroom but use the Internet, e-mail, mail, etc., to have classes".

Simply put, DL is when students are separated from teachers and peers. This means that students learn remotely and do not have face-to-face learning with instructors or other students.

What's the difference between Online Learning and DL?

1. Location. Online Learning (OL) can include the use of online tools and platforms while still being in a regular classroom setting. DL, however, is remote and does not include any face-to-face interaction between student and teacher.

2. Interaction. Online learning, as seen above, can include interaction with teachers and peers, whereas DL does not have in-person interactions.

3. Intention. OL can be used as a supplement for teachers in their courses, while DL replaces teachers with instruction that is pre-set on the learning platform.

What is Online Learning?

OL is when teachers or students use educational tools which are accessible on the Internet.

This means that students can also use online tools while they are physically in a classroom with their teacher and peers. OL can be used anywhere and anytime, so teachers may have students using them as tools in class or for preparation and assignments at home.

OL tools are often used to create blended learning (BL) environments in the classroom. This helps keep students engaged in the class and in the material.

OL also helps teachers save preparation time before class. With the help of online educational tools, teachers can spend more time grading papers, giving one-on-one attention to students, and maybe even getting some free time for themselves in their busy work schedule.

What is Distance Education?

DL does not include any in-person interaction with an instructor or study peers. Students study at home on their own, and the learning is more individual and varies on speed and timeline according to each individual student and their availability.

DL actually relies on the educational tools of Online Learning, and that is probably why there is some confusion between the two. It is possible to study with online DL as well. In that sense, DL is a subset of Online Learning.

Types of DL

1. Online courses are usually offered as additional classes in traditional degrees. As long as students have computer and internet access, they can learn and receive instruction at home.

2. Hybrid courses combine traditional classroom settings with OL at home. This can mean that students learn individually at home and meet up for in-person instructions or lectures at certain intervals during the course. The amount of at-home learning and in-class learning varies for each hybrid course.

3. Conference classes. Conferencing allows students and teachers to meet up for class in real time, whether in a group or one-on-one with an instructor. Using the phone or video chatting, such as Skype, students and teachers can engage in live lessons despite distance.

4. Correspondence courses consist of students engaging in class material via mail or email. Students receive material and assignments through mail, and they send completed assignments back through the same method.

Many students find DL to be a fulfilling and practical way to receive quality education, without needing to attend a traditional university. Whether persons are looking for a program that will allow them to work or raise families, or whether they might have a condition that keeps them at home most of the time, DL can be a great way to learn valuable knowledge and tools for their future.

5.2. Mixed learning

Technology has played a vital role in transforming higher education to better accommodate students' individual learning needs and styles. From learning management systems (LMS) to adaptive learning tools to videoconferencing, these technologies have changed how and where students learn.

Many colleges and universities have been successfully incorporating DL and educational technologies into their curricula for more than a decade. In 2018, more than one-third of college and university students took at least one online course, citing a gradual shift away from the traditional classroom.

During times of crisis or uncertainty, such as the recent global pandemic, hybrid and blended learning models become necessary for HEIs to maintain enrollment and allow students to continue learning safely. A survey conducted by the Institute of International Education (IIE) indicated that nearly nine in 10 HEIs implemented a hybrid learning (HL) model for the fall 2020 semester.

As reopening guidelines continue to evolve for HEIs, administrators must understand the principles of HL and BL and be prepared to implement and optimize these models to achieve their LO.

What is hybrid learning?

HL is a combination of traditional face-to-face instruction with additional offline or DL techniques, such as experiential learning and digital course delivery. The goal is to apply the right mix of learning techniques to effectively teach the content and meet the learning needs of students. The additional learning techniques used are designed to enhance and reduce traditional face-to-face instruction. For example, if a class meets two days per week, an instructor using HL might schedule one day for in-class lecture and the second day for a hands-on lab or online assignment.

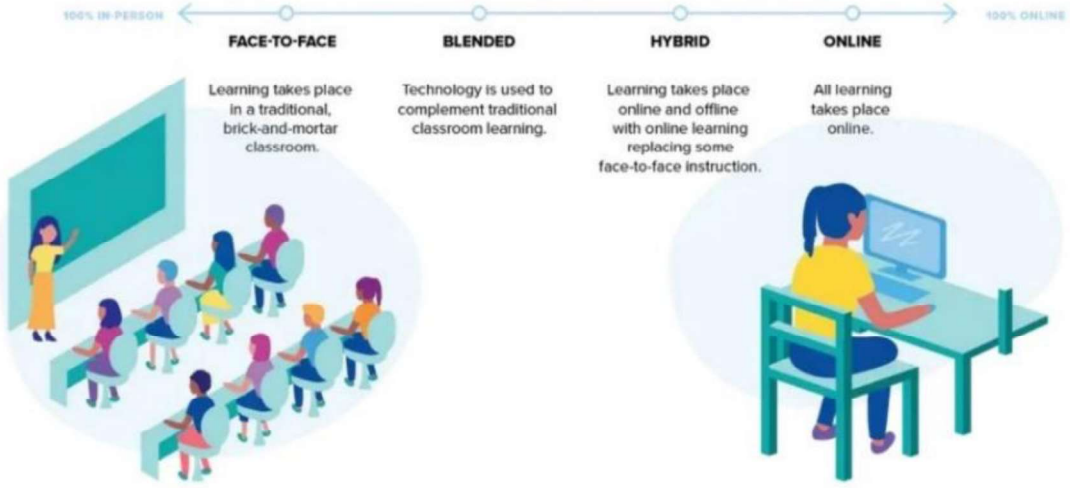
What is blended learning?

BL is a blend of offline and online instruction. Unlike HL, BL uses online instruction to complement or supplement traditional face-to-face instruction, not replace it. BL usually consists of students interacting online to complete assignments, ask questions, collaborate with other students, and virtually meet with their instructor. Using the above example, an instructor using BL might schedule both days for face-to-face instruction and assign students to write an online forum post outside of class time.

HL versus BL

HL and BL are often used interchangeably, but there is a subtle difference between the two terms. BL focuses solely on incorporating DL with traditional instruction, while HL focuses on incorporating any possible learning technique to best teach the content, no matter if it's online or

offline. Another differentiator is that BL focuses on an equal balance of DL and traditional instruction while HL typically leans more heavily on online or nontraditional instruction.



HL and BL fall in the middle of the learning spectrum between fully in-person instruction and fully online instruction.

BL models

The Clayton Christensen Institute, a non-profit, nonpartisan think tank dedicated to improving education, founded seven models of BL to help institutions structure their approach. These models can also be adapted for HL by adjusting the ratio of traditional instruction to DL and/or by substituting DL for other offline or experiential learning methods.

BL models include:

- Station Rotation Model: Students rotate through stations on a fixed schedule, where at least one station is a DL station;
- Lab Rotation Model: Like the Station Rotation Model, but the DL station occurs in a dedicated computer lab;
- Individual Rotation Model: Students rotate through stations based on individual schedules determined by the instructor or software algorithm;
- Flipped Classroom Model: Students complete online coursework and lectures outside of the classroom so instructors can use class time for guided practice and projects, encouraging deeper learning;
- Flex Model: Instructors provide support, as needed, while students work fluidly through course content;
- A La Carte Model: Students choose to take online courses alongside face-to-face courses for increased flexibility in their schedules;
- Enriched Virtual Model: Students complete most of their coursework online, but attend required face-to-face sessions with an instructor, usually twice per week or less.

HL models

In addition to the above models, there are two hybrid-specific learning models that have recently gained traction among higher education.

The Hybrid-Flexible (HyFlex) Course Model

In the HyFlex Course Model, each class is offered in-person, synchronously online and asynchronously online to provide a student-centered, flexible experience. Both students and faculty choose how they'd like to participate. For example, an instructor can teach remotely or in-person, while students learn remotely or join physically in the classroom. Technology plays a major role in this model to keep students connected, whether through videoconferencing, instant messaging, or other means of interaction.

Modified Tutorial Model

The Modified Tutorial Model is geared toward more personalized learning with small group meetings and, oftentimes, DL. This model overlaps with the flipped classroom model (defined above) and can be customized based on faculty time, costs and technology availability. An example of this model is delivering didactic material online and then meeting in small groups for follow-up discussion or activities. Regardless of the exact approach taken, the Modified Tutorial Model is meant to enable students to take greater responsibility for their learning [15].

5.3. Advantages, downsides, development perspectives

The good of distance learning in higher education

It has been argued that the studying part time while continuing to work can assist students to apply their learning directly to their professional environment. To be able to integrate mobile technology effectively into learning practices will depend on aspects that are related to humans (students and instructors), design (content and technologies), and institutions (policies and strategies). Moreover, online instruction can direct learners through a framework that can also lead to the desired outcomes in a manner that it can encourage best practices [14].

In general, there are three formats that ought to be followed in delivering courses, namely DL, face-to-face (F2F), and hybrid (H) learning. There are seven principles for good practice that can be used in DL for higher education. These principles for good practice can be divided into the following, namely: encourages student-faculty contact; encourages cooperation among students; encourages active learning; gives prompt feedback; emphasizes time on task; communicates high expectations; and respects diverse talents and ways of learning. These guidelines represent a philosophy of quality DL education that can be widely used for both face-to-face courses and OL [14].

DL can benefit universities because it can bring an element of flexibility in the learning process by the use of technologies, and interdisciplinary approaches to teaching and learning. The advantage of technology in DL is that students can watch lectures before coming to class and engage in more interactive activities in the class. They can also collaborate with other students and rely on the instructor as a facilitator rather than a lecturer. It also allows for a consistent delivery of content, because online videos can be prerecorded and shared with the rest of the class online. e-Learning has the possibility to support learning processes, collaboration, flexibility, and the distribution of education and training, as well as evaluation of content and skill in DL. A key issue to the successful use of e-learning and BL is the combination of educational competence with contextual understanding into a strategy, of how to use digital educational methods. For example, in Finland, previously, the open universities were more often used by young matriculated students who had not gained a study place at a “proper” university; but nowadays, students are more often adults in professional positions who want to enhance their qualifications, skills, and competences via e-learning by enrolling in web-based courses. Another example, in Greece, DL offers students the opportunity to combine family life and work with education. ICT-based distance education is, first of all, flexible.

e-Learning, despite its virtual nature, its provision, if it is to be perceived as being of quality, it ought to ensure that it neither ignores the physical (i.e., the appearance of learning resources, personnel, and communication materials), or temporal student needs (i.e., a willingness to help learners and provide prompt service). It is good for the elimination of face-to-face training and development costs both in monetary terms as well as in terms of productivity loss, as learners spend time away from their daily activities and jobs in order to participate in the face-to-face training sessions. e-Learning courses are available 24/7, location independent, and provide effective and efficient training means for learners in geographically dispersed areas and across time zones [14]. Furthermore, the COVID-19

pandemic has proven, that DL should be an essential part of each educational institution due to the need to support the educational process in conditions of any restrictions.

Opportunities of distance learning in higher education

Opportunities to undertake continuing professional development through DL education remain limited. DL via e-learning can be able to offer a solution, providing opportunities for DL students to further their education while applying new knowledge and skills directly to their practice. e-Learning is a relatively new phenomenon and relates to the use of electronic media for a variety of learning purposes that range from add-on functions in conventional lecture rooms to full substitution for the face-to-face meetings by online encounters. Some students may require digital literacies to participate successfully in everyday life increasingly mediated by technologies. To offer relevant learning experiences in DL, lecturers need to develop new skills and knowledge about technologies.

Therefore, distance is not a defining characteristic of e-learning. If students' ICT competencies can be improved and their attitude to OL influenced to be more positive, distance education in higher education can be used as a tool to increase the range of students who can be involved in distance education. It is presumed that some postgraduate students may prefer online courses owing to their distinctive advantages, such as lower tuition fees, adjustable speed of study, and greater cultural diversity. It is believed that learning at a distance mode in higher education can be as effective as a traditional face-to-face mode learning. DL students can be able to care for their families and incorporate instruction on online courses and this can afford them the opportunity to work while they are raising their family and pursuing their full-time jobs. DL can also benefits students because of flexibility about when and where they can engage in their learning.

ICTs can create opportunities for DL institutions to provide DL platforms, which can make it possible for many students situated far from the centres of learning to educate themselves. e-Learning is very important in recent years because it can enable e-learning opportunities that have not been previously available to DL students. Moreover, the use of e-learning systems can provide great opportunities for learning for individual students globally, such as helping in educating and providing training opportunities on different topics from focused educational programs to general hobbies.

DL in higher education can teach students skills and competencies of developing professional skills such as the skill of self-study, the ability to plan and organize, time management skills, the ability to solve problems, to take responsibility, to work under pressure, and to be creative and initiative. Understanding that DL gives everybody an opportunity to develop these social qualities, which are undoubtedly necessary for modern professionals, e-learning is key for students' success in DL. Education of adults appears to be burdensome for the family budget and therefore inadmissible for some families.

DL is one of the most financially affordable and viable forms of education. Adult students generally have many responsibilities connected with their responsibilities due to time and other constraints in their personal life. These responsibilities significantly reduce their opportunity to study both in a foreign country and in another city. Distance education allows them to mitigate these challenges. Distant students suffer to a much lesser extent from cultural, psychological, social, and economic difficulties connected with learning in a distant mode because the pursuit of knowledge is undertaken for its own sake, rather than as an obligation.

DL institutions can apply technologies to allow human interactions through the web and promote a self-regulated learning process. Using technology in DL can help in crossing boundaries of space and time for LLL. DL can enable flexible/customized ways of education for every learner despite constraints. In online and blended education environment, the types of interactions may include asynchronous online forums, synchronous textual and audio/video chatting, email, and phone conversations, which can afford students the opportunity to share brief profiles, including a photo. e-Learning can also provide unique prospects for building a sense of community engagement among

online students in DL. Online technology must be able to increase opportunities for students to access higher education, increase retention rates, and increase learning quality, and to result in good outcomes for students. e-Learning in distance higher education has the potential to make different support material available, interaction possibilities, response to the challenges posed by the globalized world, flexibility, reduction in travel costs, and environmental impact.

Individuals that have good soft skills, along with technical knowledge, will always be preferred candidates when prospective employers are looking at candidates to employ. It is possible to teach and practice soft skills through an e-learning program. The structure of DL can give adult learners the maximum possible control over the time and "pace" of their education. DL is one of the most financially affordable forms of education. Another advantage that can be associated with DL in higher education is academic mobility. DL institutions must know that adult students can have many responsibilities connected with their work or families. Therefore, the provision of distance education must be able to allow them to fulfill their responsibilities with ease.

The bad and the ugly of distance learning in higher education

Technology can have challenges with connectivity and the use of ICT can be a challenge for some DL students. There is an increasing concern that some students in DL are being disadvantaged because of various challenges. It is a widely held view that the pressure for making DL universities more accountable is a worldwide phenomenon, and academics and these institutions around the world are expected in responding to this mounting pressure. In addition, the mounting pressure can develop a complex and thoughtful set of theory-based models that can be tested empirically and used as part of a formative evaluation of DL.

Students may drop out in higher education because of those employers who may prevent them from studying, such as forcing them to work overtime, and students having no time for study. In such cases, the students' own motivation is not sufficient to prevent them from dropping out. There are different barriers that can hinder students' access and success in higher education—for example, situational and social barriers. Situational barriers are those barriers that can hinder students' access to higher education, because these learners may drop out because they are unable to cover the costs of their training. Being a busy worker and a student at the same time, some students may not be permitted to join a course, or an employer may not let them learn for higher degrees, and develop their competences. Family responsibilities may also prevent adult learners from actively participating in higher education. The use of modern communications technology in DL can easily attract a younger generation than traditional forms of training. Social barriers and administrative barriers can be a challenge for students. This can be a challenge especially if students do not know the best method to communicate with lecturers or what their progress is in a course or module.

Education research shows the importance of the community education sector to employment outcomes, given that so many distance-education students come from disadvantaged backgrounds and use technology to access education. New technologies combined with the changing transnational education landscape can give rise to new partnership types and models, creating innovative opportunities in the market, and inevitably more competition. New technology and online provision can create a market for content providers. This means that the dimensions and scope of international education provision can be transformed with the emergence of new education providers such as publishers, content aggregators and distributors, and professional bodies who can contribute to the diversification of transnational education. e-Learning systems are becoming critical platforms for DL institutions and for general lifelong learning by students. e-Learning is becoming more important in recent years because it can enable e-learning opportunities that have not been previously available to DL students. Moreover, the use of e-learning systems can provide great benefits for individuals worldwide, especially in helping to educate and provide training on different topics from focused educational programs, to general hobbies.

Challenges facing distance learning in higher education

The higher education landscape is undergoing significant change because of technological innovations. In addition, the use of various educational technologies has advanced significantly over the past few decades. It is now a common practice to find technology-enhanced learning in many higher learning institutions all over the world. The high cost of information and communication infrastructure, and the dearth of technical expertise are another challenges in DL.

There are major challenges that are experienced by DL HEIs, namely:

- the lack of appropriate business models and educational models, making the study material or open contents developed difficult to follow, and as a result, reducing the enthusiasm of learners in their respective studies;

- the lack of any clear QA mechanism, which may result in unclear standards and by consequence, poor quality of distance education;

- the lack of support from the relevant governing bodies, which may be exhibiting poor participation, brought about by a lack of appropriate human and infrastructure capacity.

Workers with ICT skills are not adequate in South Africa according to the 2011 Joburg (Johannesburg) Centre for Software Engineering (JCSE) Skills Survey, which found that there was a need for 20,000–30,000 ICT-skilled workers amounting to 10–15% of the total ICT workforce. A reason for the lack of skilled ICT personnel is that universities are not graduating enough numbers of graduates with the right levels of technical skills to enable, grow, and competitively position businesses in the African markets. e-Learning is needed in DL because it can be inferred that a tremendously large amount of workload is involved in the overall working of an open DL environments, and therefore, it is very difficult to work manually and by referring to school files only.

Technology can be used as a tool and it must be utilized only to remove the barriers and challenges present in the DL settings. ICT can provide opportunities to complement on the job training and continuing education for students in a convenient and flexible manner. Use of ICTs in distance education requires major shift in the way content is designed and delivered. New technologies should not be imposed without enabling lecturers and students to understand these fundamental shifts. Given the busy professional life of DL students, with inherent challenges in having to take time off work and to be away from their home commitments, it will not be easy for them to attend taught courses that require them to be away from workplace and home. In this instance, computing technology will be an ideal solution to deal with the challenges of DL. ICT often reduces face-to-face interaction among students, which is one reason for the high dropout rates in distance education. In DL marginalized students, for example, the impaired and the economically disadvantaged ones may be further excluded from educational practices when ICT is used. Some students may not afford the use of technology if it is not free or subsidized. These students are also often unable to use the ICT due to institutional failures to comply with legal and technical requirements for impaired students. There is a growing concern that DL is compromising the quality of education partly because one of the key challenges is lack of appropriate interaction practices. This is particularly true for international distance students, who encounter, among other issues, culture-dependent social interaction differences in virtual learning environments, which may discourage them from succeeding in or even completing their online courses.

DL institutions generally may face a wide range of strategic, operational, and financial risks from both internal and external sources, which may prevent them from achieving their objectives. Conflicts can also arise in an open DL environment, because there is significant complexity in their structure and the pattern of governance. Governors in DL environments are expected to infuse e-learning in their policies so that lecturers can be supported by policy in using ICT. The lack of appropriate infrastructure for enabling the use of ICT for DL in higher education can be a serious challenge. Again, the cost efficiency of an ICT is another aspect that is important that determines its

growth. Language, technology, and culture (knowledge, beliefs, arts, morals, laws, customs, and any other capability and habit acquired by a human being as a member of the society) can easily obstruct the assimilation of ICTs by many DL institutions.

Technology is rapidly changing, making it difficult for DL institutions and students to keep pace. With the increasing diversity of the student population, it is vital to identify practices that can better equip students to utilize technology in ways that will promote learning, development, and success for all students. In some DDL institutions, technologies used to deliver distance-education programs are typically one way (non-interactive). The growth of any communication technology and its applicability for DL depends largely on the degree to which policy-makers may recognize the importance of ICTs in promoting a knowledge-based society. For example, those countries that have paid relatively little attention to ICT are lagging behind in the field of spreading DL using the latest technology. The low awareness of educational technology integration in DL can be a barrier to the integration of it in higher education. There are different factors that may limit the use of technology in distance higher education. Some of the limiting factors to the integration of educational technology in DL are electricity and power distribution.

There are some institutional challenges that can affect DL in HEIs. Some of these challenges that must be noted in higher education pertaining may be related to the following issues, namely:

- QA plans are often too broad and not favourable to DL settings;
- lecturers tend to have a “passive resistance” to getting involved;
- some lecturers that facilitate DL programs have not been provided enough special training on the delivery of open and DL practices;
- time restraints for lecturers appear to be a challenge that ought to be overcome along with the development of a common institutional approach to DL;
- shortage of tools and technologies that enable scalability;
- lack of financial sustainability models;
- lack of committed and qualified cadre of quality assurors and experts with the relevant DL qualifications.

Technical challenge is one of the most important challenges facing the adoption of e-learning in some distance-education institutions. Access to computers is another challenge especially the availability of computers for lecturers as instructors and to students during working hours. For example, in developing countries, most of the students and instructors will not acquire their own computer. Difficulty in access to computer will negatively affect the acceptance of technology. It has been reported that unequal access to OL can lead to inequality among the socioeconomic groups within a society.

Some lecturers as instructors in higher education may have a language barrier because of the lack of knowledge, experience, and training in using technology to design online courses, and even unable to use the technology available in DL. The rapid growth in the web application requires security for identity management. Therefore, to prevent your web and information available from the foreign attack, an antivirus program must be used. The attitude of a lecturer as an instructor toward e-learning can be a barrier depending on the culture and technological knowledge of the lecturers and students. For example, if an instructor sticks to traditional education instead of using e-learning due to culture or the lack of awareness about e-learning, it can minimize the use of technology in distance education.

On the other hand, some instructors may be afraid of losing control and quality of teaching if they use e-learning. Again, the attitude of lecturers as instructors toward e-learning is an important element that must be considered in using technology in DL in higher education. This means that, in providing DL in higher education must not differ from ordinary education. Eye contact is a very crucial factor in education but this factor can be limited in e-learning environment because lecturers may be unable to observe the emotions of students and cannot predict their satisfaction which puts

burdens on them and make students respond differently toward e-learning. e-Learning should be used to enhance teaching and learning in DL.

DL organizational support of the educational process that depends on the availability and convenience of the administrative system and staff can be a challenge for some students. The abovementioned challenge may be connected with the accuracy and timeliness of the information provided to the students.

Another challenge for DL in higher education can be the problem of how the content of the course or module meets the expectations of students oriented on getting the opportunity of career growth, personal and professional development on the basis of DL. Other challenges of DL can be related to the psychological state of students. Among others, this can include: problems caused by the lack of direct contact between student and lecturer; problems associated with feeling of alienation and isolation from the student community; and problems associated with anxiety and concerns regarding the education process and learning results [14]. Hence, to minimize the challenges experienced by DL, e-learning should be encouraged. Infrastructure can be updated by introducing modern technology, fast Internet connection, continuous power supply, security, regular maintenance, and efficient administration of DL. DL universities should provide a computer lab equipped with sufficient number of computers and connected with fast Internet. Lecturers and students should also have skills and confidence to use electronic equipment, and to have the necessary knowledge about the method in which the information is delivered. Technology can also be used to improve the quality of traditional education rather than changing the methods of instruction. Lastly, e-learning should be supported in DL because it can help learners to have access to education irrespective of distance [14].

HL and BL benefits

Students, faculty and administrators can experience many benefits from HL and BL. By leveraging multiple mediums of instruction, institutions can personalize student learning to help meet their LO. In a 2010 study conducted by the Department of Education, it found that higher-ed students who participated in courses using a combination of online and face-to-face instruction performed better than those in fully online or fully traditional courses.

Here are some of the top benefits for students, faculty and administrators.

Student benefits: Greater flexibility in scheduling; Increased engagement through online content; Ability to track learning and to learn at his/her own pace; Encourages ownership of learning.

Faculty benefits: Potential time savings through less in-person learning; Higher-quality interactions with students via email, discussion forums or online chat; Ability to appeal to varying learning styles; More purposeful face-to-face instruction that emphasizes deeper learning and Increased collaboration among students.

Administrator benefits: Potential cost savings if using less brick-and-mortar classroom space; Better student data to write measurable LO, track real-time progress and apply early student intervention; Opportunities to upskill faculty and ability to expand course offerings to more students.

HL and BL challenges

There are several key challenges to be aware of before embarking on this transition. When many colleges and universities suddenly switched to HL and BL in the fall of 2020 due to the ongoing safety concerns, it revealed an onslaught of issues ranging from technological to course design to student experience. HEIs must be prepared to address the following challenges of HL and BL.

1. Outdated technology infrastructure. At the core of HL and BL is the technology that supports it. Generation Z students expect a seamless, high-quality digital learning experience. While there are several technology components to consider when moving to a HL or BL model, here are a few key questions to answer:

- Can the network accommodate an influx of off-campus traffic?
- Is there an effective way for students to collaborate online?

- How will faculty manage assignment submissions and grading?
- What videoconferencing options are available?
- What integrations are available to create a streamlined experience?
- Is security in place to protect student information and course materials?

2. Lack of technology knowledge. After ensuring the right mix of technology is in place, the next challenge is training instructors and students to use it. For many instructors, HL and BL will be new to them. Take time to provide training on how to get started, best practices and specific use cases to get instructors comfortable using the technology. When instructors understand and believe in the importance of the technology, it will shine through to their students. At the beginning of a course, instructors should provide students with instructions and expectations for using the technology to ensure successful adoption.

3. Course design and strategy. HL and BL are a shift in mindset from traditional face-to-face instruction. It's not simply uploading in-person lesson plans to an online platform and calling it HL or BL. It requires instructors to completely rethink how courses are designed and strategize which components are best suited for online instruction and which should remain in person. Not to mention, the components moving online will most likely need to be restructured to be effective. Institutions that carefully weld together traditional instruction with online instruction will reap the full benefits of HL and BL.

Tips for achieving LO with HL and BL

No matter where or how students are learning, it shouldn't be a hindrance to achieving your institution's LO. With the right people, processes and technology in place, HL and BL can be a positive step forward for higher education. Here are a few tips when getting started:

- Build a solid technology foundation: a learning management system (LMS) is just one component of the technology foundation needed to successfully deliver HL and BL. Institutions should also look to incorporate tools like videoconferencing, messaging, scheduling, office hours and interactive whiteboarding. Cisco Webex Education Connector and Webex Classrooms are great options for seamlessly integrating these features into an interface that instructors and students are familiar with.

- Identify champions: seek out champions within the institution that are passionate about DL and willing to help faculty during the transition. It's important instructors feel supported during this time;

- Share success stories: it's crucial to maintain a positive attitude among instructors as they adapt their courses. Keep instructors motivated by sharing what's working (and not working) so they can apply those learnings to their own courses;

- Be realistic: HL and BL take time to perfect. Avoid stressing out faculty by setting realistic goals when starting HL and BL. These goals can be revaluated each semester or year as your institution's model becomes more robust [15].

6. HIGHER EDUCATION DEVELOPMENT PERSPECTIVES IN EUROPE, UKRAINE AND GEORGIA

6.1. Higher education in Europe. Quality assurance and development strategy

Higher education in Europe

Higher education plays an essential role in Europe's collective well-being, creating new knowledge, transmitting it to students and fostering innovation. Within Europe, national and regional governments are responsible for education and training systems and individual higher education institutions have considerable, albeit variable, autonomy in organising their own activities. However, many challenges facing higher education are similar across the EU and there are clear advantages in working together.

Europe's higher education landscape is made up of more than four thousand higher education institutions, all operating within the legal and administrative frameworks of their national or regional higher education systems. There still exists a considerable diversity in European higher education, between systems, retaining their own characteristics, between institutions, varying in size, mission and profile and even, within institutions.

Institutional diversity is one of the key strengths of higher education in Europe. From large, research-intensive universities, to small, specialised teaching colleges, different institutional forms all have their role to play. Experience from across the world has shown that diversity in higher education systems has a positive impact on performance. In comparison with more homogenous systems, diversified higher educational systems are argued to:

1) meet a wider range of student needs: a more diversified system is better able to offer access to higher education to students with different educational backgrounds with a positive influence on overall levels of access and on social mobility;

2) respond better to labour market needs: institutional diversity makes it easier to meet the requirements of a changing labour market, with an increasing variety of specialisations;

3) be more effective: diversity favours institutional specialisation, allowing higher education institutions focus their attention and energy on what they do best;

4) be more innovative: diversity offers greater possibilities for exploring new approaches, without any need for all institutions to implement changes, at the same time reducing risks and favouring mutual learning.

Differences between higher education systems are also significant. National and regional systems serve the needs of their own populations, societies and economies. There can be no "one size fits all" for the most appropriate mix of institutional types and forms. Those responsible for defining the legal and administrative frameworks for higher education across Europe face the challenge of creating conditions for the most appropriate institutional mix for their specific requirements. But to do this, it is important to firstly understand the existing diversity existing within and among individual systems.

Whereas the US have been having Carnegie Classifications as a tool to help understand the American higher education landscape and facilitate the task of taking a system-wide perspective. It doesn't currently exist in Europe with the diversity of national systems making such classification even more challenging. The EU-sponsored U-Map and U-Multirank projects are making attempts to address this gap in knowledge.

U-Map

Started in 2005 and finalised in 2010, the U-Map project developed a classification model to categorise the rich diversity of higher education institutions, taking inspiration from the well-established Carnegie Classification used in the US. The project developed a categorisation of the different missions of higher education institutions, involving five dimensions: teaching and learning;

research; innovation and knowledge transfer; regional engagement and internationalisation. A web-based tool was used to allow higher education institutions to categorise themselves according to their activities within the different dimensions. The development of the U-map classification model is ongoing, with four European countries currently testing the approach.

U-Multirank

Launched in May 2009, the U-Multirank feasibility study is built on the experience of the U-Map project. The core objective of the work has been to develop and test a tool to provide comparable and accurate information on higher education programmes and institutions, going beyond the research focus found in most existing comparisons and rankings. This has involved defining indicators and collecting data directly from 150 higher education institutions within and outside the EU on their activities and performance in the five areas used in the U-Map classification. The test phase has initially focused on the fields of engineering and business studies.

The data tool developed has been designed to allow users to generate personalised rankings, making it possible to compare institutions using a wider range of variables than used in existing university rankings. The results of the study, presented at a final conference on 9 June 2011, show that this multidimensional ranking concept is workable in practice, although further work will be needed to refine the indicators used in certain dimensions. As the Multirank concept relies on the new data and the voluntary participation of institutions, gaining the buy-in of institutions will be crucial. The European Commission is now working on proposals to further develop the information tool.

The development of the EHEA

With the 1999 Bologna Declaration, the governments of 29 European countries agreed to establish a coherent and attractive EHEA. Since extended to 47 countries, the core focus of the Bologna Process has been on structural reforms aimed at making European HES more coherent and effective by establishing a set of common features:

1) a three-cycle degree structure (with bachelor, master and doctoral qualifications);

2) the generalisation of the ECTS and the DS;

3) NQF to describe clearly the different cycles and qualifications in national education systems, based on LO achieved, thus allowing comparison with the QF-EHEA;

4) recognised national QA systems, consistent with European Standards and Guidelines (ESG) for QA adopted in 2005 and articulated at European level;

5) mutual recognition of qualifications and learning credits (supported by the elements above), in line with the Lisbon Recognition Convention.

In addition to these structural reforms, the initial scope of the Bologna Process was swiftly expanded to encompass the social dimension of higher education - in particular widening access to under-represented groups - and measures to embed higher education into wider systems of LLL. The Bologna Process has provided the EU's own higher education modernisation agenda with additional momentum. The European Commission has supported the work of the Bologna Follow-up Group (BFUG) and funded Bologna-related initiatives, notably under the centralised actions of the Erasmus strand of the Lifelong Learning Programme.

Implementation of the Bologna Process has been monitored closely by the main stakeholder groups. While the different assessments of progress start from different perspectives, there is a broad consensus that Bologna has led to greater convergence in the architecture of national HES and has achieved real impact in HEIs and HES across the EU.

Quality assurance and development strategy

The development of internal and external QA mechanisms has been one of the most important trends affecting higher education in Europe in the last decade. The call for rigorous QA systems as part of the Bologna Process was motivated in the first instance by a need to ensure mutual trust among

participating countries in the quality of qualifications delivered by other HES within Europe. However, this initially trans-national concern has sparked a widespread debate on the appropriate role and form of QA systems in guaranteeing high quality at national level, particularly in those countries with little or no previous experience of QA.

Evidence from the ground shows a growing "quality culture" in HEIs, with internal quality systems in place and frequently managed at faculty level. Moreover, almost all EU Member States now have independent QA agencies, working to a greater or lesser extent in line with the ESG mentioned earlier. Many agencies are members of the European Association for Quality Assurance in Higher Education (ENQA) and registered in the European Quality Assurance Register (EQAR) to facilitate recognition across Europe. This European dimension to QA has been widely welcomed, with the EUA (2010) finding it have had a range of positive impacts, including in internationalising quality review panels, ensuring the participation of students in QA processes and further professionalising national QA agencies.

Reliable information about the quality and relevance of learning programmes is of particular importance for young people entering higher education, for young graduates considering further studies and for adults seeking suitable continuing education or retraining. However, the European Commission's reviews reveal progress in implementing QA systems in EU, both internal and external quality systems in Europe have tended to focus on accreditation of programmes against minimum standards, rather than pushing for excellence and exploring new and innovative ways to ensure the quality and programmes relevance. Recent developments in a number of Member States show positive trends in developing new approaches to QA.

ESG were adopted by the Ministers responsible for higher education in 2005 following a proposal prepared by the European Association for Quality Assurance in Higher Education (ENQA) in cooperation with the European Students' Union (ESU), the European Association of Institutions in Higher Education (EURASHE) and the European University Association (EUA). Since 2005, considerable progress has been made in QA as well as in other Bologna action lines such as qualifications frameworks, recognition and the promotion of the use of LO − with all these contributing to a paradigm shift towards SCL and teaching. Given this changing context, in 2012 the Ministerial Communiqué invited the E4 Group (ENQA, ESU, EUA, EURASHE) in cooperation with Education International (EI), BUSINESSEUROPE and the European Quality Assurance Register for Higher Education (EQAR) to prepare an initial proposal for a revised ESG "to improve their clarity, applicability and usefulness, including their scope". The revision included several consultation rounds involving both the key stakeholder organisations and ministries. The many comments, proposals and recommendations received were carefully analysed and taken very seriously by the Steering Group (SG). They are reflected in this 2015 version of the ESG. The ESG 2015 were adopted by the Ministers responsible for higher education in the EHEA in May 2015.

The ESG are a set of standards and guidelines for internal and external QA in higher education. The ESG are neither quality standard, nor prescribe how the QA processes are implemented. However, they provide guidance, covering the areas vital for successful quality provision and learning environments in higher education. The ESG should be considered in a broader context including qualifications frameworks, ECTS and DS contributing to transparency promotion and mutual trust in higher education in the EHEA.

ESG: purposes and principles

The ESG have the following purposes:

- they set a common framework for QA systems with learning and teaching purposes at European, national and institutional level;

- they enable the assurance and improvement of higher education quality in the EHEA;

- they support mutual trust, thus facilitating recognition and mobility within and across national borders;

- they provide information on QA in the EHEA.

These purposes provide a framework within which the ESG may be used and implemented in different ways by different institutions, agencies and countries. The EHEA is characterized by its diversity of political systems, HES, socio-cultural and educational traditions, languages, aspirations and expectations. This makes a single monolithic approach to quality and QA in higher education inappropriate. Broad acceptance of all standards is a precondition for creating common understanding of QA in Europe. For these reasons, the ESG need to be at a reasonably generic level in order to ensure that they are applicable to all forms of provision. The ESG provide the criteria at European level against which QA agencies and their activities are assessed ensuring that the EHEA QA agencies the adhere to the same set of principles and the processes and procedures are modelled to fit the purposes and requirements of their contexts. The ESG are based on the following four EHEA QA principles:

- HEIs have primary responsibility for the quality of their provision and its assurance;

- QA responds to the diversity of HES, institutions, programmes and students;

- QA supports the development of a quality culture;

- QA takes into account the needs and expectations of students, all other stakeholders and society.

QA standards are divided into three parts: Internal QA, External QA and QA agencies.

6.2. Higher education development in Georgia: tendencies, EU standards adjustment, problem matters and solution approaches

Georgia joined Bologna Process in 2005 and largely shaped its higher education system according to the Bologna Process guidelines.

Higher education in Georgia consists of three levels: bachelor program, master program and doctorate program.

Educational program in the institution of higher education during one educational year includes averagely 60 credits. Educational program of the first level of teaching (BSc) consists of no less than 240 credits. The first level of higher education may include educational program of teacher's training. Only holders of state certificates confirming full general education or individuals equalized with them, have a right to study for BSc programs. Educational program of the second level of teaching (MSc) consists of no less than 120 credits. Only bachelors or individuals with degrees equalized with them have a right to study for MSc programs. Medical/dentist educational program is one-level higher educational program ending with awarding academic degree of a certified physician/dentist. As soon as the educational program of a physician (360 credits) or a dentist (300 credits) is completed, this academic degree is consigned with a MSc student academic degree. Third level of studying (doctorate program) consists of no less than 180 credits. Only masters or individuals with degrees consigned with them, have a right to study for doctoral programs.

A respective diploma is issued as soon all levels of higher education are completed. HEI is authorized to award students with intermediate qualification in case of completing a part of educational program. Awarding an intermediate qualification is allowed after reaching of results in studying, defined for completing a part of educational program which should not be less than half of credit number within an educational program.

Obtaining the status of HEI and implementation of respective educational activity is possible only in case of authorization of HEI defined by the rules of authorization provision. Authorization is a procedure of obtaining of a status of HEI purpose of which is to ensure compliance with standards necessary for implementation of respective activity required for issuing of education confirming

document recognized by the state. Authorization is carried out by the National Center for Educational Quality Enhancement (NCEQE), according to the rules defined by the authorization provision. The state recognizes only diplomas issued by accredited or equalized with them educational institutions.

Acceptance

In HEIs, in bachelor, certified physician/dentist educational programs, only those enrollees have a right to study who completed respective Unified National Exams according to the rule defined by the Ministry of Education and Science of Georgia. In HEIs of Orthodox theologian direction, enrolment of students in bachelor's theologian educational program is carried out on the basis of proposal presented by Catholicos-Patriarch of Georgia, according to the rule defined by the Ministry of Education and Science of Georgia, on the basis of result obtained in certain subject of Unified National Exams.

National Examinations Center is a legal entity of public law, ensuring the Unified National and Joint Master Exams execution, is authorized to carry out national estimations and international researches, carrying out other authorities defined by the Georgian legislation.

The language of instruction is predominantly Georgian. Only those programmes aiming at attracting international students are delivered entirely in English. Some joint programmes with European universities are offered in German or English languages.

NQF was approved in December, 2010 and renewed in 2019. NQF considers the requirements of the EQF LLL and QF-EHEA. The document unites all the qualifications existing in Georgia, reflects the LO of different levels of general, vocational and higher education. Classification of Fields of Study based on the United Nations Educational, Scientific and Cultural Organization documents "International Standard Classification of Education" (ISCED-F-2013) and the "Education and Training Field 2013 - Description of Detailed Fields" (ISCED-Foet-2013) classifies existing fields of study in Georgia and defines the qualifications to be awarded in each field of study. The NQF defines what type of knowledge, skills and values an individual should have in order to receive a certifying document of completion at a corresponding level – School Certificate (Attestat), Vocational Diploma, Diploma.

Main bodies in higher education

The Parliament of Georgia defines and approves state priorities and main directions of higher education. It also develops the legal framework to enable policy implementation. Annually, *the Government of Georgia* (GoG) determines the amount of the state grant to be dispersed to the higher education sector. The Government develops state programmes targeting social, economic or research priorities of the country. The GoG is also able to establish new HEIs. The Prime Minister appoints the directors of the NCEQE and National Assessment and Examinations Center (NAEC).

The Ministry of Education and Science of Georgia (MES) develops higher education policy and oversees its implementation. It develops a legislative framework and proposes it to the Parliament for approval and develops necessary bylaws enabling the policy implementation process. The MES also administers the state grant scheme. It assumes a representative role in the international and transnational educational platforms, such as the Bologna Process.

The National Center for Educational Quality Enhancement (NCEQE) develops external QA mechanisms and administers authorization and accreditation processes. The Centre collects basic data on HEIs including students, academic personnel, degree programmes and the like. It also houses the NARIC functions and is in charge of developing NQF.

The National Assessment and Examinations Center (NAEC) develops and administers system level examinations, such as Unified National Examinations (UNE) and high school graduation tests.

Higher Education Institutions (HEIs) represent the implementation body that is governed by the Law on Higher Education. Public HEIs are accountable to and financially dependent on the MES.

While private HEIs are not accountable to the MES directly, they are part of the external QA scheme and benefit from the state grant scheme by demonstrating compliance to the state QA processes.

There are three types of HEIs in Georgia:

University – a HEI implementing the educational programs of all three cycles of higher education and scientific research; *Teaching University* – a HEI implementing higher education programme/programmes (except for Doctoral programmes). A Teaching University necessarily implements the second cycle – Master's educational programme/programmes; *College* – a HEI, implementing only the first cycle academic higher education programmes.

HEIs can be publicly or privately founded and funded, but quality criteria are same for all institutions despite of their legal status. There are 56 stately recognized (authorized) HEIs in Georgia (19 public and 37 private institutions), 8 of them are *Orthodox Divinity Higher Educational Institutions.*

Recent policy updates, major reforms and related news.

Over the past two decades Georgia has made significant changes in its HES, but in the last years main focus was made on QA reform and its internationalization aspects. Significant progress has been reached in this regard.

The NCEQE, which is responsible for improving the quality of education in the country, aims at closer cooperation with international institutions working in the education area and involvement in the international academic network. In 2014 NCEQE gained an affiliate status of the European Association for Quality Assurance in Higher Education (ENQA). In 2018 NCEQE has launched the process for ENQA full membership and on 25 April 2019, the Board of ENQA took the decision to grant the NCEQE membership of ENQA for five years from that date. The Board concluded that NCEQE is in compliance with the ESG 2015 and fulfills the membership criteria.

The full membership of ENQA was followed by the official registration of NCEQE at EQAR - The European Quality Assurance Register for Higher Education in June 2019.

In 2018 NCEQE applied to the World Federation of Medical Education (WFME) and has already received the recognition status from WFME the same year. NCEQE is the first quality enhancement agency in Europe, which received the status from WFME.

The NCEQE continues the cooperation with the European Foundation for Quality Management (EFQM). The aim of the Center is to become the official partner of EFQM in Georgia. The NCEQE has prepared the partnership document in accordance with the EFQM requirements and sent it together with the application to the EFQM.

In 2018 the Center carried out the self-assessment according to the EFQM Business Excellence Matrix helping to figure out organization's strengths and opportunities with the improvement purposes. Currently, the NCEQE continues to implement the action plan, created as a result of the self-assessment, in order to achieve the more Excellence and to become "Recognized for Excellence".

NCEQE is actively involved in implementation of existing recommendations of the Association Agreement between the EU and Government of Georgia. In the framework of the Association Agreement and in order to promote the Bologna Process, the main focus was made on reviewing the QA standards and procedures on the basis of the revised ESG. New external QA standards (authorization of institutions and accreditation of educational programmes) for HEIs have been elaborated with active participation of international partners and local stakeholders. The pool of international peers was created in order to involve international accreditation peers into the external QA process and the first round of newly approved external QA standards. The procedures were implemented in 2018/2019. 41 Georgian HEIs have undergone QA process according to the new authorization and accreditation standards, based on international experience and approach. International peers have been involved in the assessment process for the first time.

Relevant projects and initiatives

The European Union and Georgia began negotiations of an Association Agreement and a Deep and Comprehensive Free Trade Area (DCFTA) in 2010 and it was officially initialed in 2013. The Visa Liberalization for Georgian citizens to the Schengen Area, a historic decision on the road to Georgia's homecoming and its final integration in the European family, was launched in 2017. The visa-free regime became one of the fundamental elements of political association and economic integration of Georgia with the European Union foreseen in the Association Agreement, namely the substantial enhancement of mobility and people-to-people contacts.

The Association Agreement sets out certain aims for the education system, notably its reform and modernization and convergence in the field of higher education in the Bologna process including the quality enhancement and higher education relevance. In the framework of the Association Agreement, Georgian Government cooperates with the EU aiming at "an overall modernization and Georgian education reforming, joint work and exchanges in order to promote further integration of Georgia into the EHEA in the context of its Bologna process membership''. For instance, Erasmus+ Programme, benefiting large numbers of Georgian students (top 10 among 141 partner countries within more than three years), and other initiatives and projects are being implemented in this regard in close cooperation with different donor organizations.

The MES has launched a programme - *Study in Georgia* - in order to promote internationalization, mobility and attractiveness of Georgian higher education for international audience and especially students. The programme reflects the main aspects of internationalization strategy of the government in terms of higher education. A special website www.studyingeorgia.ge has been created, containing all necessary and useful information about the HES, education institutions and their programmes, application procedures and relevant practical information about Georgia, living conditions, tourism attractions, etc.

With the new initiative of the Georgian government, state budget allocations for the education sector will be 1.6 BLN GEL in 2019, 2 BLN GEL in 2020, 2.5 BLN GEL in 2021 and will hit 6% of GDP in 2022. The wide-scale investments will be allocated not only in the infrastructure but increased remuneration and higher funding for scientific research. The vision and plan of the government is to transform Georgia into a regional economic hub. According to the new concept, accessibility of education will be ensured throughout the country.

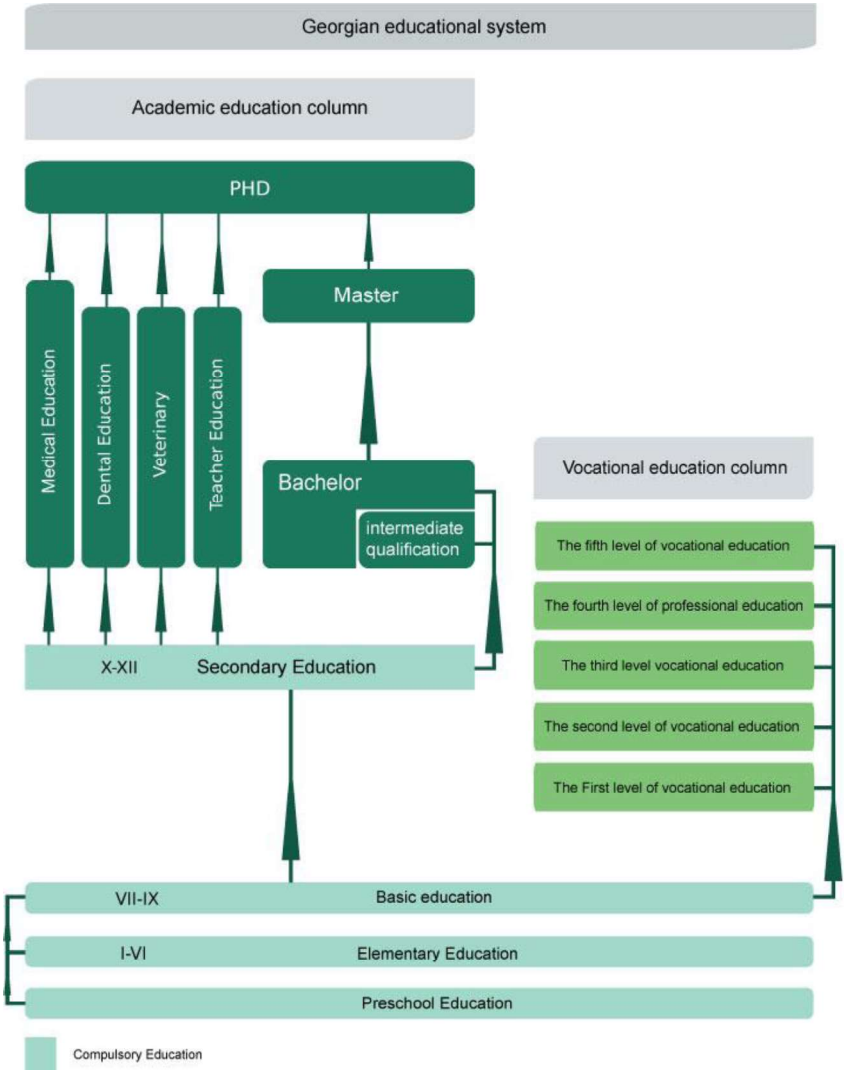
6.3. Higher education development in Ukraine: tendencies, EU standards adjustment, problem matters and solution approaches

Market relations building and a democratic state establishment in Ukraine determine the change of targeted guidelines for higher education as a social system and an element of labor market infrastructure.

The country's transition to a market economy has led to higher education reform. This would fully contribute to the independent thinking formation, strengthening the individual approach to creative abilities development and to radical improvement in professionals training capable of working in a market economy. This affects the future professional ability to combine modern knowledge, professionalism with social activity and high morality. The urgency of the reform is growing due to the fact that the nature of labor demand is radically changing, reflecting the transition of the entire economic system to a new information type of employment.

Therefore, the state policy in the field of higher education should include the following actions:

- creating conditions to improve the individuals competitiveness in the labor market through the labor training quality improvement;



- social order formation for professional education and participation in volumes and profiles definition of experts training in professional educational institutions of various level, specialization and type;

- providing citizens with a wide range of services in the field of career guidance and choice of modern training programs forms;

- priority approach to the vocational training organization for citizens, especially requiring social protection;

- citizens labor activity promotion, development of entrepreneurship and various forms of self-employment.

The new structure of education and training in Ukraine has not yet acquired the clarity it had before. Levels of higher education still do not have a clear legislative and scientific definition. In this regard, addressing to different level specialists is solved ambiguously, being rarely conducive to economic efficiency.

The educational-qualification cycle of a Master in Ukraine does not have a clear status, approaching more to a specialist than to a PhD, although in the world practice it is already a scientific level.

Higher education reorganization in accordance with the market economy requirements is a complex task. It includes new approaches to the educational institutions financing and self-financing issues; both the entire system of vocational education and its individual institutions management modernization; restoration of teaching staff qualification; changing the forms, methods and students training quality improvement; the specialists training professional structure review etc.

One of the main reasons for the spur increase in demand for modern higher education (even in case of paid education) appears to be a very slight chance for young people to realize potential within their specialties immediately after secondary school possessing no vocational education. On the other hand, a wide network of public and private HEIs offers affordable and diverse study opportunities in promising specialties.

The legislative framework of the budget and tax systems of Ukraine is the main factor for the specific economic mechanisms formation to ensure the field of education and training. Today the condition of this base does not meet the requirements of all government levels. This is a significant obstacle toward improving the industry efficiency. The tax legislation, regarding the taxation of educational institutions and funds of enterprises aimed at staff training, requires improvement.

Overcoming the crisis in the education and vocational training system financing will be greatly facilitated in case of a favourable legal atmosphere creating (the Civil, Tax and Budget Codes improvement), helping the education system not only survive but also develop.

The higher education in Ukraine is progressively developing, particularly affecting the increase in the volume and improvement of the student training structure. At the same time, there is a lack of financial resources, uneven higher education development in Ukrainian regions, restrictions on citizen's access to free higher education, graduates trial employment. It is too early to claim a complete reorientation of higher education to the labor market needs as a significant number of graduates pursue the occupation they have not been trained for or retrain immediately after graduation.

The main reason hindering the progressive development of education and training is the low demand for highly qualified specialists in the labor market, economic development instability and the lack of clear economic priorities.

The strategic task of the state in this direction is to provide conditions for effective use and adequate evaluation of highly qualified work: maintaining existing and creating new jobs; creating preconditions to implement a serious, successful and effective concept of the workforce quality improvement at enterprises of all economic sectors.

EU standards adjustment in Ukraine

The Bologna Forum participants approved the two-level American and British systems of completed and incomplete higher education, noting that the introduction of a similar system is desirable in other European countries as well. This approach is also crucial for countries seeking to ensure real relevance for HEIs graduates and to provide employers with acceptable conditions to foster the candidate's readiness to work in their professional fields.

The European integration processes, as a manifestation of objectively conditioned globalization on our continent, cover all new life spheres. Education is not an exception.

Ukraine has clearly defined the benchmark for entering the European educational space. It modernizes educational activities in the context of European requirements, as well as works on practical accession to the Bologna Process.

As a model, the two-level system of educational and qualification levels is offered according to the Bachelor (not less than 3 years) and Master (2 years of study) schemes. The first level should fully provide academic access to the second Master's cycle. The Master's training gives the right to continue postgraduate education and obtain the PhD degree (Doctor of Philosophy/Doctor of Science), the equivalent of which in Ukraine is a Candidate of Science.

In the Bologna Process development, in addition to the national diploma, it is proposed to issue an international uniform European diploma to be recognized by employers in the European labour market. Today, the system of standards for each educational and qualification level and training profile has already been legislatively approved in Ukraine.

The implementation of the academic credit system envisaged by the Bologna Declaration, similar to the European Credit Transfer System, will be quite large-scale in most Ukrainian HEIs. An

important point in the credit system implementation is the ability to take into account all student achievements, not just the workload (for example, participation in research, conferences, subject competitions, etc.).

Defining the curriculum content modules, coordination of credit systems to assess student academic results will be the basis for achieving another goal mentioned in the Bologna Declaration − creating conditions for free students, teachers and researchers movement in Europe.

Experts note that the Declaration principles formal implementation is not enough to achieve the ultimate Bologna Process goal lying in a single educational space building. Transparent and understandable methodologies for education quality control are needed. The presence of internal and external state and public quality control systems (licensing or accreditation) are mandatory. These procedures have already existed in Ukraine for a while and continue to be improved. The criteria for assessing the HEI readiness to provide quality services and specific institutions examination results are considered at each State Accreditation Committee (SAC) meeting.

The quality of higher education has specific features. Firstly, those who study are the main focus in the system. On the one hand, they act as consumers of the educational system components (knowledge, skills, practical experience, etc.). At the same time, requirements for the quality of education are set for them. Secondly, the specialists training is a rather long (5-6 years) process. Therefore, in order to guarantee the appropriate level of graduates` competence, it is necessary to launch a permanent and an effective system of monitoring the quality of education and students training at a HEI.

According to the Bologna Declaration concept, adhering to the institutional autonomy principle, the main responsibility for QA rests with a HEI. In the world practice, different approaches to assess the quality of HEI work are addressed to: reputational (based on expert assessments), resulting (according to objective indicators) and general.

In Ukraine, the QA system exists at three levels:

- at a HEI level;
- at the state level (state and state-public control system);
- at the international (European) level.

The priority measures in the process of the international recognition of the Ukrainian education system are as follows:

- to provide informational support for actions to analyze the criteria and technologies of international quality assessment and various agencies functions;
- to establish formal relationships with organizations responsible for quality assurance in European higher education, in particular with the European University Association; external quality assessment can be carried out by the European Quality Assurance Network;
- to plan Ukraine's implementation of the relevant Bologna Process requirements, namely:
  - state bodies responsibilities definition;
  - a concerted evaluation system development for programs and HEIs, both internal and external evaluation;
  - accreditation and certification systems adaptation, comparison procedures definition;
  - quality assessment network creation;
  - establishing concerted standards and procedures to ensure the adequate system quality verification;
- to introduce a concerted Diploma Supplement in Ukraine.

It is possible to reach the following conclusions based on the above-mentioned facts:

1. to ensure the domestic quality assurance system in accordance with European requirements, the following measures are required:
   - to develop criteria for assessing the quality of higher education at all levels;

- to ensure transparency of the quality assessment results and free access to this information.

2. Ukraine has a well-functioning state system of HEIs accreditation, licensing and certification. It provides an opportunity to objectively assess the capacity of the educational institution to train specialists according to national and international standards, although it needs some reforming and improving the criteria and procedures in accordance with the Bologna Process requirements;

3. regarding the institutional autonomy principle implementation, HEIs must create a quality assurance system for constant self-control of the main activity areas. In addition, HEIs should be interested in external education quality monitoring by both governmental and non-governmental organizations to determine HEI's ranking [16].

LITERATURE

[1] The Law of Ukraine "On Higher Education." Ukraine: zakon.rada.gov.ua, 2014 (in Ukrainian).
[2] Scientific and Methodological Council of the Ministry of Education and Science, "Approved standards of higher education", 2021. https://mon.gov.ua/ua/osvita/visha-osvita/naukovo-metodichna-rada-ministerstva-osviti-i-nauki-ukrayini/zatverdzheni-standarti-vishoyi-osviti (accessed Mar. 22, 2021) (in Ukrainian).
[3] Fitsula M.M., Pedagogy of high school. Kyiv: Akademvydav, 2014 (in Ukrainian).
[4] R. Wagenaar, A History of ECTS, 1989-2019. Developing a World Standard for Credit Transfer and Accumulation in Higher Education. International Tuning Academy, 2020.
[5] Rashkevych J.M., The Bologna Process and a new paradigm of higher education. Lviv, Ukraine: Lviv Polytechnic Publishing House, 2014 (in Ukrainian).
[6] ECTS Users' Guide. Luxembourg: Publications Office of the European Union, 2015.
[7] I. Broekman et al., "The ECTS Course Catalogue in practice," 2020. [Online]. Available: https://www.vereniginghogescholen.nl/system/knowledge_base/attachments/files/000/001/181/original/Bijlage_ects_course_catalogue_in_practice.pdf?1610533684#:~:text=A complete ECTS Course Catalogue,and the language of instruction.
[8] On approval of the National Qualifications Framework. Ukraine: Verkhovna Rada of Ukraine, 2011 (in Ukrainian).
[9] Bobalo J.Y. et al., ECTS User Guide. 2015 (in Ukrainian).
[10] L. Elton, "Should Classification of the UK Honours Degree Have a Future," in Assessment and Evaluation in Higher Education, 2004, pp. 294–422.
[11] B. E. Bodnar, A. S. Raspopov, and E. V. Moroz, The use of the best EU practices of students training. Dnipropetrovsk: Publishing House of Dnipropetrovsk National University of Railway Transport named after academician V. Lazaryan, 2014.
[12] A. Gover, T. Loukkola, and H. Peterbauer, "Student-centred learning: approaches to quality assurance," Brussels, 2019. [Online]. Available: https://eua.eu/downloads/publications/student-centred learning_approaches to quality assurance report.pdf.
[13] S. MEHTA, "EDUVOICE Community", Modern Teaching Methods – It's Time For The Change, 2020. https://eduvoice.in/modern-teaching-methods/.
[14] P. M. Vimbi, "The Good, the Bad, and the Ugly of Distance Learning in Higher Education," in Trends in E-learning, 2018, pp. 17–29.
[15] M. Reed, "World Wide Technology: Digital Workspace, Unified Communication and Collaboration," A Guide to Hybrid and Blended Learning in Higher Education, 2020.
[16] Malykhin O.V., Pavlenko I.H., Lavrentieva O.O., and Matukova H.I., Methods of teaching in high school. Kyiv: KTN, 2014 (in Ukrainian).