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"Belarusian state University of culture and arts"

Faculty of Cultural Studies and Social-Cultural Activities  
The Department of Psychology and Pedagogy

EDUCATIONAL AND METHODOLOGICAL COMPLEX  
ON THE EDUCATIONAL DISCIPLINE

**PEDAGOGY AND PSYCHOLOGY OF HIGHER EDUCATION**

The syllabus of the academic discipline for the specialty  
of the II stage of higher education 1-21 80 14 Art History

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## Teaching Materials

### PEDAGOGY AND PSYCHOLOGY OF HIGHER EDUCATION

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РЕПОЗИТОРИЙ БГУКИ

## 1. Explanatory Notes

Teaching materials unit “Pedagogy and Psychology of Higher Education” is prepared for a discipline that is compulsory for master level training in the major 1-21 80-14 Art Criticism. The discipline learning is basic for teachers in advanced and higher education because it provides the master’s course students with special educational knowledge and competences. The discipline combines two branches, that is Pedagogy of Higher Education and Psychology of Higher Education. In learning the discipline students get to know more about history of higher education, its modern tendencies, educational methods, communication in teaching, methods of research in psychology of higher education as well as acquire some special competencies in teaching, cognitive development, evaluation of educational activities. The knowledge and competencies acquired become the basic background for pedagogical excellence, effective lecturing and teaching skills.

The purpose of the teaching materials is formation of students’ science mindset and complex educational competences for lecturer and teacher in advanced and higher education as well as expert competences in a sphere of educational activities.

The tasks that are realized in teaching the discipline and constitute the background for the teaching materials are as follows:

- learning of the main concepts, ideas, conceptual foundations for pedagogy and psychology of higher education;
- development of competences for educational and pedagogic activities in advanced and higher educational institutions;
- development of professional personality qualities, professional self-analysis;
- forming thirst for knowledge and self- study, abilities to adopt and create pedagogical innovations;
- development of teacher and lecturer skills, abilities for creative pedagogical activities.

The teaching materials content is a basic support for developing the following competences as well as overall knowledge and abilities of masters’ students. The main academic, personal, social and professional competences are as follows.

Academic competences:

- abilities and skills to create effective educational models;
- abilities to work out curricula, educational plans, curriculum frameworks;
- theoretical knowledge and research abilities to solve educational problems;
- abilities to acquire new pedagogical and psychological knowledge.

Personal and social competences:

- social abilities and skills as well as abilities and skills of cross-cultural communication.
- need for personal and professional self- improvement;
- abilities and skills of oral and written communication, public discourse;
- abilities of professional self-reflection;
- creative abilities in teaching, educating and upbringing.

Professional competences:

- abilities to lifelong learning;
- abilities to organize students' learning and self-instruction;
- abilities to acquire, analyze curricular practices and share it;
- abilities to educational activities for all-round development of students' personality.

Master course graduate should know:

- the main concepts of pedagogy and psychology of advanced and higher education, the main trends and innovations in higher education development;
- content area and standards of higher education;
- patterns of personal and cognitive development of students in higher educational institutions;
- theoretical background, methods and forms of students teaching and educating;
- principles and approaches to working out content area of syllabus, guidance papers and resource materials;
- rules of management and monitoring in higher education.

Master course graduate should be able to:

- determine, appreciate and range educational problems;
- effectively use methods of teaching and educating students;
- apply different forms of classroom and extracurricular training;
- work out guidance papers and resource materials, achievement tests;
- demonstrate effective interaction with students, colleagues and authorities.

Academic curriculum of master's discipline "Pedagogy and Psychology of Higher Education" consists of 84 academic hours, with 56 class hours which are divided into 32 lecture class studies and 24 hours for practicals.

## **2. Theory Section**

## **2.1 Lecture Notes on Discipline «Pedagogy and Psychology of Higher Education».**

### **Lecture 1. History of Higher Education.**

- 1. Beginnings of Higher Education in Ancient Greece.*
- 2. The Museum as a Prototype of Higher Education in Egypt.*
- 3. Higher Education Beginnings in Byzantine.*

#### *4. Universities of Islamic Scholarship*

##### *1. Beginnings of Higher Education in Ancient Greece*

The first prototype of higher educational institution appeared in Ancient Greece in the 4<sup>th</sup> century BC. It was the school of philosophy which was established by Plato. Plato's Academy was informal society of intellectuals who shared a common interest in studying subjects such as philosophy, mathematics, and astronomy. The meeting location of Plato's Academy was originally a public grove near the city of Athens. The garden had historically been home to many other groups and activities. It had once been home to religious groups with its grove of olive trees dedicated to Athena, the goddess of wisdom, war, and crafts. Later, the garden was named for Akademos, a local hero after whom the Academy was named. Finally, the garden was left to the citizens of Athens for use as a gymnasium. The garden was surrounded by art, architecture, and nature as it was famously adorned with statues, temples, and olive trees. Plato delivered his lectures there in the small grove where senior and junior members of the exclusive group of intellectuals met. These meetings and teachings employed several methods including lectures, seminars, and even dialogue, but primary instruction would have been conducted by Plato himself. Academy leaders were also Cicero, Democritus, Parmenides, Socrates, Plato and others. Eventually, other instructors joined the Academy, including Aristotle, who taught first at the Academy and then found his own school of philosophy at Lyceum. The Academy had earned such a reputation among intellectuals that it continued to operate, with periods of closure, for almost nine hundred years after Plato's death. In fact, the Academy's history lasted such a long period that scholars generally make a distinction between the Old Academy and the

New Academy. The Academy was closed by Emperor Justinian I, a Christian, in 529 A.D. for being pagan.

## ***2. The Museum as a Prototype of Higher Education in Egypt.***

The Alexandrian Museum was built near the royal palace about 280 BC by Ptolemy I. The best surviving description of the museum is that it was a large complex of buildings and gardens with richly decorated lecture and banquet halls linked by colonnaded walks. The Museum was situated within the palace complex in Alexandria, the city founded by Alexander in Egypt, and a community of scholars was established there; linked to this was a library, the Great Library of Alexandria. These two institutions are often celebrated for their role in the history of scholarship. The Museum was organized in faculties with a president-priest at the head; the salaries of the scholars on the staff were paid by the Egyptian king and later by the Roman emperor. As lectures of the Museum were many famous philosophers and scientists. In spite of the famous intellectuals who worked in Alexandria, the evidence for the Museum and Library is very little. The Museum was a community of scholars which was both academic and religious. The scholars were engaged in the study of science (for instance, medicine, mathematics, astronomy) and in the study of literature (editing the major Greek texts such as Homer). As well as studying they seem also to have acted as teachers. The number of members is unknown, as are most of their names. They all appear to have been supported by the kings who provided them with pay and meals. In 272 AD the buildings of the museum were destroyed in the civil war under the Roman emperor Aurelian, although the educational and research functions of the institution seem to have continued until the 5th century.

## ***3. Higher Education Beginnings in Byzantine***

The Imperial University of Constantinople, sometimes known as the University of the Palace Hall of Magnaura, can trace its origins to 425 AD, when the emperor Theodosius founded the Pandidakterion. The original school had 31 chairs for law, philosophy, arithmetic, geometry, astronomy, music, rhetoric and other subjects. The university existed until the 15th century. But the main content of higher education for



most students was rhetoric, philosophy and law with the aim of producing competent, learned personnel to staff the bureaucratic postings of state and church. In this sense the university was the secular equivalent of the Theological Schools.

#### **4. *The Universities of Islamic Scholarship***

The story of the University in Fez dates back to the 9th century when a wealthy family who left their original city of Tunisia settled in Fez. After the death of the family's father, who was a successful merchant, his only two daughters inherited his gigantic fortune. His daughter Fatima dedicated her wealth to build the mosque for her community. Originally founded as a mosque with an associated mosque school for the purpose of providing a place for the community to practice their religious rituals in comfort. The place of worship soon developed other functions. It became a place of religious instruction and Quran memorization. Arabic grammar, mathematics, music, chemistry, medicines, astronomy as well to study political debate and lessons focusing mainly on the natural sciences. The mosque later on set up the rest of its urban infrastructure. It was surrounded by places of lodging, business, schools. The mosque school and the university in Fes, Morocco appeared the oldest degree-granting university in the world.

Another ancient center of Islamic scholarship, Al-Azhar University, was founded around 970-972 AD. It is considered to be the second oldest university in the world. The university is also a mosque school. In addition to religious teachings, it currently focuses on all areas of modern natural science. Next up is Baghdad's Al-Nizamiya, just one in a series of highly-respected ancient universities established in the 11th-century in Iran.

### **Lecture 2. History and Contemporary State of HE in Great Britain.**

- 1. *History of Higher Education in Great Britain***
- 2. *Oxbridge***
- 3. *Types of British Universities***
- 4. *Structure of the UK higher education sector***
- 5. *Measuring Academic Quality and Standards of HE***

## ***1. History of Higher Education in Great Britain***

Higher education in Great Britain has a long history. The oldest university in the English - speaking world is the University of Oxford. Exact date of foundation of the university is unclear, but there is evidence of teaching in the city of Oxford in 1096. The University began to grow rapidly from 1167 when Henry II banned English students to attend the University of Paris. The first college, University College, was founded in 1249. Other notable colleges include All Souls (founded in 1438), Christ Church (founded in 1546) and Lady Margaret Hall (founded in 1878), which was the first women's college. University of Cambridge is the second oldest university in the English-speaking world (after Oxford). The start of the University is generally taken in 1209, when some masters and students left Oxford and arrived in Cambridge. The university was basically established to study for religious purposes. The earliest teaching sessions of the University were carried out in churches or private house, but soon the University authorities began to establish buildings for its own use. During the 14th and 15th centuries, the University gradually gained its independence from the church. Cambridge University is more renowned than Oxford for mathematics and natural sciences. In the Middle Ages some more universities were founded. They are the three Scottish universities St Andrews, Glasgow and Aberdeen, founded by papal bull in the 15th century and the University of Edinburgh which was established by royal charter in 1583. But a major expansion of higher education in the UK occurred in the 19<sup>th</sup> century. During the 1950s and 1960s, as the demands of population and the needs of economy raised, the British government began to expand the higher education sector. Then in 1992 the UK government granted university status to 35 former polytechnics and to a number of other institutions, principally colleges of higher and further education. Between 2001 and 2013, an additional 31 universities were created. These universities are referred to as 'post 92' or 'modern' universities, though many of them have long histories as vocational institutions.

## *2. Oxbridge*

Oxbridge is a combination of two famous names — Oxford and Cambridge. They are the oldest universities in Great Britain. They have dominated British education for seven centuries. The University of OXFORD, situated in the city of Oxford in England, is the oldest university in the English-speaking world. The first of its colleges was founded in 1249. The university now has 34 colleges and about 12 000 students, many of them from other countries. There were no women students at Oxford until 1878, when the first women's college, Lady Margaret Hall, opened. Now there are 5 women's colleges. Oxford is a member of the Russell Group of research-led British Universities. It has recently come top of some league tables which rank universities in Britain. Oxford is, like Cambridge and others, a member of the Coimbra Group, a network of leading European universities, and the LERU (League of European Research Universities). CAMBRIDGE was founded in 1284, when the first college, named Peterhouse, was built. Now there are more than thirty colleges founded at different times, three of them are women's colleges. The first women's college was opened in 1869. Cambridge has produced more Nobel prize winners than any other university in the world. It regularly heads league tables ranking British universities, and a recent league table by the Times Higher Education Supplement (a journal) rated it sixth in the world overall and first for science. Oxford and Cambridge are famous for their first class education. The universities have societies and clubs for different interests. Sport is an important part of students' life. Both of these university towns are very beautiful. They have some of the finest architecture in Britain. Some of their colleges, chapels and libraries are very old and full of valuable books and paintings. Both towns have many lovely gardens. The universities of Oxford and Cambridge, often referred to together as Oxbridge, compete to be seen as the strongest overall university in the UK. Historically, they have produced a significant proportion of Britain's prominent scientists, writers and politicians.

### ***3.Types of British Universities***

There are four main types of British Universities.

1. Ancient Universities- Ancient universities in the United Kingdom and Ireland were founded the Middle Ages and the Renaissance. Since no universities were founded in the United Kingdom and Ireland between the 16<sup>th</sup> and 19<sup>th</sup> century, the term "ancient university" generally refers to institutions of higher education that were established before the 19th century.

All of the ancient universities are very reputable. The two top universities in UK, which are continuously found in first and second place of the British league tables, are Oxford and Cambridge. Together they are known as Oxbridge and share a century old rivalry. But it is important to note that Oxford and Cambridge are state-owned. Both universities are divided into more than thirty colleges. Red Brick Universities - named after the buildings they were housed in which were usually built with red brick - were founded in the industrial parts of the cities during Victorian era (1837-1901) and before the Second World War. They are sometimes also called "civic universities". The main difference between Red Brick and ancient universities is that Red Bricks admitted men without regarding their religion or social background. Furthermore, they concentrated on teaching predominantly "practical subjects" often linked to engineering. Two types of universities are subsumed under the term "New Universities". First of all, the academic institutions founded in the 1960s, when it was recommended immediate expansion of universities and elevating Colleges of Advanced Technology to university status. Due to their modern architecture and the use of large stretches of plate glass the institutions founded in the 1960s are often called "Plate Glass Universities". Some Plate glass universities such as York and Warwick have by now out-performed some Red Brick universities, especially on the field of research, which has improved their reputation considerably. The second group are the so called Post-1992 Universities. The term refers to former polytechnics that were given university status. They have the poorest reputation among British universities. Founded in 1986, the Open University is Britain's single distance-learning institution. In 2005 a total of 180,000 students, most of them based in the UK, were enrolled, which made it the largest institution of higher education in the UK by student numbers. The Open University was rated top university

in England and Wales for student satisfaction in 2005 and the Quality Assurance Agency for Higher Education rated teaching at the Open University as excellent that same year. Just as any other academic institution, the Open University, too, actively engages in research and awards both undergraduate and postgraduate degrees.

#### ***4. Structure of the UK higher education sector***

Higher education in the UK is now provided by a diverse range of organizations. 166 institutions currently have their own degree awarding powers. The majority of these also have 'university' title which is only granted to those institutions which meet certain criteria. However, there is also a growing number of 'listed bodies' – institutions which do not have the power to award their own degrees. In 2011 there were over 1,600 bodies, including 250 further education colleges, which offer some form of UK higher education provision. The UK's degree awarding institutions are referred to as Higher Education Institutions (HEIs).

It should also be noted that, for many purposes, higher education policy is now developed separately in each of the countries making up the UK. They have specific and differing responsibilities for certain parts of higher education and student policies.

The UK's HEIs are not owned or run by government. They are independent autonomous legal entities, with Councils or Governing Bodies that have responsibility for determining the strategic direction of the institution, for monitoring its financial health and for ensuring that it is effectively managed. Moreover, of the 166 Higher Education Institutions in the UK, only 9 are privately owned and receive no funding from government for teaching and research.

#### ***5. Measuring Academic Quality and Standards of HE***

There is no national curriculum in the UK. Instead HEIs develop their own programmes of study and currently there are more than 50,000 different courses on offer. So quality assurance is a responsibility which the HE sector takes very seriously. A national system based on the principle of peer review ensures that both the quality and standards of awards are broadly consistent (not equal or identical) across the sector. This national system defines the academic standards required –that is, the level of achievement a student has to reach to gain a qualification –as well as the academic

quality required. There is an independent body, the Quality Assurance Agency for Higher Education (QAA), which reviews and reports on how well UK universities and colleges set and maintain their academic quality and standards. The review process varies in different parts of the UK. In England, for example, Institutional Review teams make judgments in the areas of academic standards, quality of student learning opportunities, academic performance, information about the learning opportunities, and the enhancement of quality. The QAA has worked with the HE sector to develop a set of nationally agreed reference points, known as the Quality Code, which institutions use to guide their policies for maintaining academic standards and quality. This includes a profile of each institution; an analysis of the student body; the employment prospects for graduates; and a student feedback gathered by means of the National Student Survey.

### **Lecture 3. Development of Higher Education in Belarus.**

- 1. History of Higher education in Belarus*
- 2. Structure of Higher Education in Belarus*

#### *1. History of Higher education in Belarus*

The beginnings of higher education in Belarus appeared in June 22, 1914 with a decree signed by Minister of Education of the Russian Empire to establishing Minsk Teachers Institute. In November 21 of the same year the grand opening of Minsk Teacher's Institute took place. But only in May 1918 the All-Russian Teacher's Congress made a decision to transform Minsk Teacher's Institute into a four-year institution of higher education. The educational institution provided training for teachers, pre-school and after-school workers. Soon Minsk Teacher's Institute changed its name to Minsk Institute of Public Education and then merged with the Faculty of Education at Belarusian State University. Only in 1931 the Faculty of Education at Belarusian State University was again reorganized into Belarusian State Higher Pedagogical Institute.

During World War II the institute was destroyed and higher education in the republic disappeared. After the War the institute began its activities again and in 1948

Minsk State Pedagogical Institute of Foreign Languages was established from the Faculty of Foreign Languages at Minsk State Pedagogical Institute. In 1975 Minsk Institute of Culture was established from the Faculty of Library at Minsk State Pedagogical Institute. In 1993 Minsk State Pedagogical Institute was reorganized into Belarusian State Pedagogical University.

In 1919, the first national university was established in Belarus. However, the occupation of Minsk by the Polish army in World War I delayed these plans and the university was actually opened on October 30, 1921. Initially the university comprised three faculties – Worker's, Medicine, and Humanities. The faculty included 14 professors, 49 lecturers and 10 teaching assistants, most of whom were transferred from the universities of Moscow, Kazan and Kiev. The university started offering post-graduate programs in 1927. The university actively participated in the creation of the Belarusian Academy of Sciences. By 1930, the university consisted of six faculties: Chemistry, Physics and Mathematics, Biology, History, Geography, and Languages. On the bases of the university the Medical Institute, the Polytechnic Institute and others were opened. After Minsk was occupied by Nazi Germany in June 1941, some students and academic staff were evacuated to the east, but over 450 joined the Soviet Army or partisan brigades. During the War several university buildings were destroyed, while others were used by the Germans as hospitals and offices. The university relocated back to Minsk in the summer of 1944 and classes resumed.

The oldest higher educational institutions of the country are the Belarusian Agricultural Academy; Mogilev and Vitebsk State Universities; the Belarusian Polytechnic Academy; Vitebsk Veterinary Medicine Academy.

Now Belarus is a country with a high educational level. There are 57 higher educational institutions and the Academy of Sciences which was founded in 1929 to carry out research in different fields of science. The total number of students in our Republic is about 2,5 million (25 percent of the population). The curriculum structure includes study of disciplines of humanitarian and social-economic type, of general scientific and general professional type, of special disciplines, of specialization disciplines. The teaching staff of a university is divided into departments. Each department is headed by a dean, or chairman, who is usually a professor. Under the deans are other professors, associate

professors, or readers and lecturers.

## ***2. Structure of Higher Education in Belarus***

There is a broad network of educational establishments in the system of higher education of Belarus. Four major types can be distinguished: classical university; profile university or academy; institute; higher college.

University carries out fundamental research in a wide range of natural sciences, humanities and other sciences, culture. University is the centre of developing education, science and culture. University trains specialists at all levels of higher education over a wide range of fields of study. Academy trains specialists at all levels in one field of study, carries out applied and fundamental research, mainly in one branch of science or engineering. Institute trains specialists, as a rule, at the first level of higher education in a number of specialties of one field of study. Higher College trains specialists at the first level of one or several specialties. Altogether there are 57 higher educational establishments, of which 43 are state owned, 2 are run by religious organizations (28 universities, 8 academies, 1 institute, 5 higher colleges, 1 higher school). They train students in more than 320 specialties and in over 1,200 majors. Education in public HEIs is free of charge for students who passed the entrance competition. In private HEIs, all students pay tuition fees.

The Belarusian system of higher education includes educational, research and governing institutions that use unified official standards and rules in the processes of teaching, management, assessment and research. Higher education is under the supervision of the Ministry of Education regardless of ownership and departmental affiliation, (Law on Education in the Republic of Belarus, Year: 1991) which is responsible for the accreditation and licensing of HEIs and developing and applying the State Educational Standards. Belarusian education is ranked among the best ones, and the Belarusian specialists are much in demand in the world. Therefore both our citizens and foreign students wish to study in the higher educational establishments (Universities) of the Republic. Higher education is provided by public (State) and private (non-State) accredited higher educational institutions (HEIs).



## **Lecture 4. The Bologna Process: History and Contemporary State.**

### ***1. Characteristic Features of the Bologna Process.***

### ***2. Membership Arrangements of the Bologna Process***

### ***3. History of the Bologna Process***

### ***4. Advantages and Disadvantages of the Bologna Reform***

#### ***1. Characteristic Features of the Bologna Process.***

The Bologna Process is a reform process aiming to create a European Higher Education Area. It is based on international cooperation and academic exchange that is attractive to European students and staff as well as to students and staff from other parts of the world. The Bologna Process is named after the Bologna Declaration, which was signed in the Italian city of Bologna on 19 June 1999 by ministers in charge of higher education from 29 European countries. They proclaimed 6 of the basic aims of the Bologna Process which has been announced with this declaration. Some of these aims are: to present clear, understandable and comparable diplomas and degrees, easier recognition of qualifications; to apply European Credit Transfer System (ECTS); to enable the mobility of the students and the teachers; to develop European dimension in higher education; to introduce the three cycle system (bachelor/master/doctorate).

The basic framework adopted is of three cycles of higher education qualification: undergraduate (Bachelor's) and graduate (Master's and doctorate). The names of the degrees may vary from country to country.

- The 1st cycle is usually awarding a Bachelor's degree. (3 – 4 years)
- The 2nd cycle is usually awarding a Master's degree. (1-2 years)
- The 3rd cycle comes to Doctoral degree. (3 years)

European Credit Transfer System (ECTS) is a standard for comparing the studies of students of higher education completed abroad across the European Union. For successfully completed studies, ECTS credits are awarded. One academic year corresponds to 60 ECTS-credits that are equivalent to 1500-1800 hours of study in all countries. The main goal of ECTS is to promote the exchange of academic information among European institutions of higher education to make student mobility easier.

There are major changes under way in curricula, the missions of universities, their relationship with national and regional authorities, and their governance. Together, these amount to a revolution in European higher education

## ***2. Membership Arrangements of the Bologna Process***

Today, the Process unites 49 countries - all party to the European Cultural Convention and committed to the goals of the European Higher Education Area. An important characteristic of the Bologna Process - and key to its success - is that it also involves European Commission, Council of Europe and other bodies, as well as representatives of higher education institutions, students, staff, employers and quality assurance agencies. This process was sustained by many international institutions and 49 member countries. The membership does not rely on any agreement between states/governments. The declarations published within the scope of the Bologna Process are not legally binding. The process is a formation that each country joins with complete self-determination and has the right whether to accept the envisaged goals of the process or not.

The citizens of the countries within The European Higher Education Area that the Process aims to create will be able to go about unhampered with equitable access in Europe. Thus Europe will become preferable by those in the other parts of the world in terms of not only higher education but also job opportunities.

There are several levels of organization of the Bologna Process – international, national and institutional. At the international level there are several modes of cooperation and several structures developing the Bologna Process. There is the so-called Bologna follow-up group (BFUG) that consists of all the countries and the European Commission as well as the Council of Europe and other bodies and groups. In addition to this, numerous seminars are being organized throughout Europe, which carry the unofficial label of “Bologna seminars”.

## ***3. History of the Bologna Process***

The Process officially started in 1999, with the signing of the Bologna Declaration. Twenty-nine countries have signed the declaration on 19 June 1999 in

Bologna. The Declaration stated six objectives: a system of easily readable and comparable degrees; a system based on two main cycles, undergraduate and graduate; establishment of a system of credits – such as in the ECTS; promotion of mobility of students, teachers, researchers and administrative staff; promotion of European co-operation in quality assurance; promotion of the necessary European dimensions in higher education.

However, prior to the signing of the Bologna Declaration, another document was adopted by four countries: France, Germany, Italy and the United Kingdom – the Sorbonne Declaration. This declaration provided the beginnings of the Bologna Declaration and indicated already in 1998 the main goals of the European Higher Education Area.

These six objectives are the essence of the Bologna process and have since been developed further. After the signing of the Bologna Declaration, a Bologna Follow-Up Group was formed. It decided that the Ministerial meetings should take place every two years and the first was held in Prague in 2001. In the meantime, a general rapporteur for the Follow-Up Group was selected. Furthermore, different countries have organized the so-called “Bologna seminars” which covered various important topics. Apart from the countries, who are all members of the Bologna follow-up group, several international organizations are also participating: European Commission, Council of Europe, European University Association and others.

#### **4. *Advantages and Disadvantages of the Bologna Reform.***

The Bologna Process is designed to be helpful to students, putting them and their needs at the centre of education. As this is a new approach that has been inspired by globalization and the increased value of knowledge.

The Reform introduces student-centered approach instead of teacher-centered approach to learning. Teacher-centered approach states that teachers are the main authority figure in class. Student-centered approach to learning states that the teacher’s primary role is to coach and facilitate student learning and overall comprehension of material, and to measure student learning through both formal and informal forms of assessment, like group projects, class participation.

The overall principles of the reform are sound but the implementation and the effects have their pros and cons.

Pros: the meetings and the development of the ideals are informal exchanges; the process provides mobility throughout the EHEA; the process has seen a higher demand for education programmes; the shorter programmes mean students will be working sooner.

Cons: new compressed versions of courses may not provide enough time for assimilation, reflection and quality learning; employability may be reduced as the result of a shorter programme; old and new systems still co-exist, some not so harmoniously; there has been a lower demand for health programmes; student-centered approach.

## **Lecture 5. Global Trends in Higher Education Development.**

### ***1. Expansion of higher education systems***

### ***2. Wider participation***

### ***3. More diverse profiles of institutions, programmes and students***

### ***4. Continuing advancement and rapid integration of new technology***

### ***5. Greater internationalization***

#### ***1. Expansion of higher education systems***

In the last half century, the most salient of these trends is undoubtedly the dramatic expansion of higher education worldwide, the UNESCO Institute for Statistics (UIS) estimated that there were roughly 32.5 million students enrolled in higher education worldwide. In the year 2000, this estimation increased to nearly 100 million and in 2010 to 178 million. This translates into 4.3% average annual growth in enrolment, a very rapid growth when compared to the 1.6% average annual growth in the world population over the same period (UNDP, 2012). An accelerating expansion starting in the mid -1990s, with a 5.9% average annual growth of higher education enrolments in the first decade of the 21<sup>st</sup> century. The number of higher education students is forecast to further expand to reach 263 million by 2025. Trends in higher education enrolments

are worldwide, 1970-2025 Source: UNESCO Institute for Statistics Data Centre for 1970 -2010 and Daniel (2009) for 2025 forecast. Growth has prevailed on all continents and constitutes a defining feature of global trends of the late 20<sup>th</sup> and early 21<sup>st</sup> centuries.

This trend spreads towards emerging regions. The growth in tertiary enrolments over the past four decades was more obvious in emerging regions, notably Sub Saharan Africa (8.4% average annual growth), the Arab states (7.4%), East Asia and the Pacific (7%), Latin America and the Caribbean (6.4%). and South and West Asia (6%). More recent trends suggest that the greatest growth is now taking place in South and East Asia. China and India alone will account for over half of the global increase in student numbers in the years to come. Moreover, by 2020, they will account for 40% of young adults (aged 25-34) with a tertiary degree.

## ***2. Wider participation***

The growth in absolute numbers of students is mirrored by trends in access to higher education. In just 14 years, the proportion of young adults entering undergraduate university programmes has soared by 25 percentage points, from 37% in 1995 to 62% in 2010. Meanwhile, rates for those entering more vocationally oriented programmes have remained stable, at 17% (OECD, 2012b).

Comparable trend data are not available to examine changes in higher education participation over a longer period. It is possible, however, to capture the progress achieved indirectly, by comparing the attainment rates among different age groups. In this type of analysis the proportion of young adults currently holding a tertiary degree – i.e. aged 23-34 years in 2010 – is compared with those who completed their studies 30 years earlier – i.e. aged 55-64 years in 2010. The analysis shows that across the OECD, the proportion of tertiary degree holders has grown from 23 to 38% over three decades.

Canada, Japan and Korea have already reached higher education attainment rates of over 50% and this is becoming the benchmark for OECD countries. Several OECD countries have indeed set ambitious goals, as illustrated by the European Commission's target of 40% higher education attainment among European younger generations by 2020, which 11 Member states have already surpassed. Likewise, President Obama's

administration has established an ambitious goal of 60% attainment rates among 25-34-year-old Americans in 2020, so that “America will once again have the highest proportion of college graduates in the world”. G20 countries, the Russian Federation has also achieved over 50% higher education attainment while China aims towards a 20% target by 2020 (China Government, 2010) and some leading Indian analysts call for 20-25% participation rates in the near future and 30% by 2020. A key feature behind this wider participation is the increasing female participation in higher education.

### ***3. Profiles of Institutions, Programmes and Students***

A related trend is the growing diversity of higher education student bodies, HEIs and their educational offerings. This diversification offers major advantages to the various stakeholders in higher education systems, like better addressing students’ needs, enabling higher levels of higher education attainment, improving social mobility, better serving the needs of the labor market, increasing political legitimization and more effective higher education systems. As a result of the shift from elite to mass—and now even universal in some countries – higher education access and participation is the growing heterogeneity of students in terms of their socio-economic background, academic ability and preparedness, career expectations, motivation and engagement. Besides the rise of female participation, another prominent development is the growing participation of more mature students in search of a first degree, in pursuit of their studies after a period in the workforce, or attending while working in order to update or upgrade their skills. HEIs today include an increasing number of non-traditional students, those who did not enter directly from secondary school, are not from the dominant social groups in terms of gender, socio-economic status or ethnic background, or are not studying in a full-time, classroom-based mode. Modes of delivery have also considerably expanded. Indeed, the traditional mode of full-time and campus-based attendance is ill-suited to the needs of adults and lifelong learners who often undertake their studies while working and supporting a family. Higher education institutions have not only become more diverse in type, ownership and educational offerings, they have also diversified their missions, targeting specific groups of students (women, minorities,

disadvantaged or students with special needs, adults and lifelong learners, international students, etc.). This suggests that HEIs, over time, have assumed responsibility for a far wider range of occupational preparation than in the past. Altogether, it has resulted in a strong institutional differentiation to meet the needs of increasingly diverse audiences.

### **5. *Advancement and Integration of New Technology***

Communication and education delivery technologies are continuing to advance at accelerating rates. These advancements have had and will continue to have significant impact on the organization and provision of higher education both within countries and worldwide. Many HEIs and programmes have successfully adapted and used a succession of technological advances in recent decades, including technology -assisted open universities, non-classroom-based modes of instructional delivery, and computer modelling as instructional tools. “Blended” instruction in which classroom time is augmented through internet-based student-faculty interaction or student-to-student networking is now the norm in many HEIs and programmes. Yet, research suggests that these steps are only early innovations in the transformation of both instruction and learning and that greater potential can be realized through the integration of technology. Internet-based online instructional delivery is now the fastest growing type or sector of higher education in many countries. The recent and rapid emergence of Massive Open Online Courses (MOOCs) can potentially provide access to advanced courses taught by top faculty to hundreds of thousands of students. This has opened doors to even greater opportunities and at the same time has introduced new challenges for higher education. Online delivery of education is also expanding rapidly to meet the career-specific education and training needs of adult populations.

### **6. *Internationalization***

The internationalization of higher education also features among the sector’s key transformations in the past 25 years, especially in the European context. Internationalization can be defined as the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of education. Although student and academic mobility are clearly the most observable features of internationalization, they are not the only aspects. The internationalization process

manifests itself in various ways, and includes the full spectrum of educational programmes and activities that contribute to internationalized learning, ranging from the internationalization of programmes' content and delivery to the mobility of students and scholars, in addition to intermediate forms of trans-national education such as the cross-border mobility of HEIs and/or their programmes. The internationalization process has evolved in response to several trends. First, as world economies become increasingly inter-connected, international skills have become ever more important for operating successfully on a global scale. This has led to growing demands to incorporate an international dimension into education and training. The rise of the new economy has provided additional stimulus since employers in OECD countries increasingly need to look abroad for talent. Internationalization has thus become a part of a longer term for skill development strategy. Demographic trends have also triggered internationalization.

## **Lecture 6. Teaching Methods and Forms in Higher Education.**

### ***1. Lecture Method***

### ***2. Academic Tutorials***

### ***3. Teaching in Small Groups***

### ***4. Case Study***

### ***5. Peer Teaching***

#### ***1. Lecture method***

A lecture is a talk or verbal presentation given by a lecturer, trainer or speaker to an audience. It is a teacher-centred approach in teaching methods.

Lecture method is still a backbone widely used in teaching and training at higher level of education in spite all the advancement of training systems and computer technology. This method is economical, can be used for a large number of students, material can be covered in a structured manner and the lecturer has a great control of time and material. Lecture as a large group teaching context serves to achieve a range of educational goals such as providing a structure to studying the topic, evoking an interest for further study by linking theory with real world issues; showing how views on a



subject can differ around the world; introducing the latest research findings; helping students to connect new material with their own knowledge.

The research shows that students may place greater emphasis on lecture material than on textbooks. Lecturing is a special form of communication in which voice, gesture, movement, facial expression, and eye contact are engaged. Advantage of a lecture is in presenting factual material in direct, logical manner, which contains lecturer's experience, stimulates thinking. Findings also revealed that most of the students considered lecture as the best method because it creates new ideas, develops creativity among students. Moreover, a lecturer is an experienced person and has mastery on subject, so he explains educational content well and can answer all students' questions.

Research shows that the lecture can be a highly effective and interactive method for providing knowledge to students. Lecture also gives the students skills in speech listening and taking rapid notes.

### ***2. Academic Tutorials***

A tutorial is a small class of one, or only a few students, in which the tutor, a lecturer, or other academic staff member, gives individual attention to the students. Academic tutorials are one-to-one follow-up meetings supported by schedule. At Cambridge, a tutorial is known as a supervision. Tutorials focus on subject-specific knowledge and understanding, but also address more generic skills. A tutorial might be about the development of a professional approach to the discipline, personal growth in confidence and self-esteem, intensive sessions on personal development and reflection. Academic tutoring focuses on helping students become independent learners.

### ***3. Teaching in Small Groups***

Teaching in small groups may be called a seminar, workshop, learning set or whatever. It gives students more chance to practice and to develop new skills of analysis and argument.

Activities might include working in small teams to form and outline opinions, working in project groups to a defined outcome, making short presentations to peers, taking part in practical tasks to develop professional skills, carrying out small pieces of research. Small group teaching helps to develop skills, encourages students to work

with peers to develop ideas and to share ideas and communication across cultures and nationalities, to apply new theory or techniques to real world situations. Teaching in small groups is a chance for students for discussion and development of ideas and communication skills. There are some forms of small group teaching methods.

#### **a. Group discussion**

It is a free verbal exchange of ideas between group members or teacher and students. For effective discussion the students should have prior knowledge and information about the topic to be discussed. The advantages of class discussion are as follows; creation of ideas and experiences by students of group with opportunity for everyone to participate in an active communication; creation of a problem, an issue, a situation in which there is a difference of opinion, which is suitable for discussion method of teaching.

The study also revealed that the student rated group discussion (class discussion) as the second best method by giving reasons that it has more participation of students, the learning is more effective, the students don't have to rely on rote learning, every student give his/ her opinion, and this method develops creativity among students.

#### **b. Brainstorming**

It is a loosely structured form of discussion for generating ideas. It is a very useful technique for problem solving, decision making, creative thinking and team building. It develops listening and speaking skills, fastens cognitive processes, stimulates emotions.

#### **c. Practicals and labs**

For many students practicals and labs are the practical sessions that bring the theory to life and allow for the development of discipline-specific research skills. Practical sessions help students to achieve competence in using discipline-specific techniques and research equipment, ability to design and carry out valid scientific enquiries, apply theoretical principles in practical situations. Practicals and labs demonstrate professional attitude to practice in the discipline.

## 5. Case Study

The case study method is aimed to teach students solving specific cases. It is a collective analysis of a situation, finding a solution and a public solution presentation. The method was first applied at Harvard Law School University in 1870.

The case which is viewed by the students, is usually taken from a real professional area and is supported by visual materials, statistical data, charts and graphs, descriptions of how it is viewed by different people, reports, data from the media, Internet resources, etc.—i.e., the information that allows us to understand what is described in the case. Thus, studying and analyzing work experience based on real situations, students comprehensively enrich the knowledge and skills that undergird the professional world, demonstrating a productive effect on the formation of their professional competences.

Primarily developed in business and law contexts, case study teaching method can be productively used in liberal arts, engineering, and education. This method is basically used to develop critical thinking and problem -solving skills, as well as to present students with real-life situations. The students are presented with a record set of circumstances based on actual events and imaginary situation and they are asked: to diagnose particular problem(s) only; to diagnose problem (s) and provide solution (s); to give reasons and implications of action after providing both problem and solution.

It is a time consuming method and sometimes the case does not actually provide real experience. It could be in-conclusive, and insufficient information can lead to inappropriate results. At the end, the students want to know the right answer by the teacher.

The activity of a teacher using this method includes two phases. The first includes creating the case, formulating the questions for analysis and developing methodological support materials for the students and their independent work. The second phase includes the classroom activities of the teacher in discussing the case, where he/she makes introductory and closing remarks, organizes discussion or presentation, analyze, and compare alternative solutions, and recommend a course of action.

## ***6. Peer teaching***

Principles of democracy have been introduced into teaching in accordance with the Bologna process. So it was declared the necessity of changing a teacher-centred approach for a student-centred approach.

In general peer teaching is a method by which one student instructs another student in material on which the first is an expert and the second is a novice. Peer teaching involves one or more students teaching other students in a particular subject area and builds on the belief that "to teach is to learn twice" Peer Teaching is one of the collaborative strategies, which has become popular in last 20 - 30 years.

It is thought that peer teaching can enhance learning by enabling learners to take responsibility for reviewing, organizing, and consolidating existing knowledge and material; understanding its basic structure; filling in the gaps; finding additional meanings; and reformulating knowledge into new conceptual frameworks. Help from peers increases learning both for the students being helped as well as for those giving the help. For the students being helped, the assistance from their peers enables them to move away from dependence on teachers and gain more opportunities to enhance their learning. For the students giving the help, the cooperative learning groups serve as opportunities to increase their own performance. They have the chance to experience and learn that "teaching is the best teacher".

The main benefits of peer teaching include, but are not limited to, the following: students receive more time for individualized learning; direct interaction between students promotes active learning; peer teachers reinforce their own learning by instructing other; students feel more comfortable and open when interacting with a peer; peers and students share a similar discourse, allowing for greater understanding; peer teaching is a financially efficient alternative to hiring more staff members; teachers receive more time to focus on the next lesson.

## **Lecture 7. Interactive Teaching Methods in Higher Education.**

### ***1. Training.***

### ***2. Behavior modeling.***

### ***3. Method of peer feedback***

### ***4. Method of Projects***

### ***5. Storytelling***

### ***6. Case Studies and Problem-Based Learning***

#### ***1. Training***

Training is a teaching method that aims at developing skills and knowledge in any field by performing sequential tasks, activities or games. This method allows the teacher to give the participants missing information and allows students to form skills of professional and appropriate behavior in the performance of professional tasks. The advantage of training is that it ensures the active involvement of all students in the process of training. Training can provide preparation for professional communication and collaboration, execution of organizational or supervisory functions, etc. Training is usually done in several stages. Introduction. This stage sets the tone for future work, creating a relaxed, democratic atmosphere. It is held in any form or by any means. The teacher informs the students of his/her expectations and hopes regarding the upcoming activity. Discover. This step is a necessary procedure for the first class of any training. It activates the group for engaging in interaction and developing communication skills. It should be done even if the students know each other already. Through games such as “interview”, “Know Me” and “exchange of business cards”, participants can see a new side of and feel concern for each other. Expectations of the participants. Participants' expectations are clarified—for example, “in a circle”—with the help of the training issues that they meet at the time. Addressing the needs of the student not only directs their interest but is also an important benchmark for the activities of the teacher. Actualization of the problem. To develop the motivation for modifying professional behavior and activity, the participants should be encouraged to discuss the training

theme to arouse interest and make this issue relevant to everyone. The teacher can do a role play in the end.

Education. Direct interaction between teacher and students is to implement the key goal of the training at this stage. This stage of training involves two steps. The first one is information: it can start with answering the items from the questionnaires which caused the most embarrassment. In addition, the main course material is presented at this stage by using such methods as lectures, talks, role playing, discussions and small group work. The second stage is practice-oriented: it is designed to help the participants acquire practical experience. Role playing, dramatization, discussion, “brainstorming” and other interactive forms of work can be used for this purpose. The choice depends on the conditions. Summing up. Typically, this procedure is designed to ensure that the participants share their impressions and feelings and express their wishes. Summing up can involve filling the “sheet of revelation,” letters, questionnaires or surveys. An important component of training is the documentation of the student's progress, e.g., via photography. While summing up, these photos can be viewed to remind how the work was proceeding.

Thus, training efficiently forms students' professional competence through establishing a confident and comfortable environment and the possibility of practically drilling the steps that are essential for future professional activities in general.

## ***2. Behavior Modeling.***

Behaviour modelling is a method of teaching interpersonal skills and professional conduct. The method is carried out in the following sequence: 1) the presentation of a model of professional behaviour which is to be learnt; 2) the most accurate reproduction of the proposed behaviour model; and 3) feedback, indicating the degree of success of mastering the relevant behaviours. Behaviours that are offered to students using this method should sufficiently comply with actual professional situations, so that future specialists have the opportunity to maximize immersion in professional activities and rapidly adapt to specific conditions. For example, he/she may be practicing job interview skills, conflict or emergency response, discussion of career prospects, transfer or acceptance of a position, etc. Behavioural modelling is effective under the following conditions: firstly, the proposed case is attractive to students and arouses their

confidence and willingness to follow the proposed model; secondly, the case demonstrates the desired sequence or correct procedure in the standard situation; and thirdly, the students see that compliance with the desired sequence of activities is rewarded (time savings, insurance against errors, problem solving, etc.). Thus, the presented method of behaviour modelling can enhance the quality of training by promoting appropriate behaviour in ways typical of future employment situations.

### ***3. Method of Peer Feedback***

The method of peer feedback is where one student provides another student ongoing feedback about his/her actions, deeds and decisions. A look at their actions and reactions from the outside allows the future specialist to better understand his/her strengths and weaknesses and develop adequate self-esteem. The method of peer feedback is based on information (objective and honest feedback) when performing tasks associated with the development of new skills and performing current professional duties. The participants (the one who acts and those who analyze and give feedback) are absolutely equal. Feedback can be provided after discussions, performances, educational tasks, etc. Practical training, in which students directly solve professional problems, has extraordinary value and opportunities for the implementation of this method. For example, such feedback for future teachers can be given after the lecture or additional training and educational activities, etc. The students, of course, need to be trained to give objective feedback to make informed judgements and become competent to provide information before using this method. Thus, the method of peer feedback provides more efficient development of the competences of future professionals through continuous monitoring of activities and opportunities to provide timely assistance and correction of deficiencies.

### ***4. Method of Projects***

Play projects is a teaching method where learning is included into the process of problem solving. The teacher fixes the learning or research problem, i.e., makes the problem situation and then the students split into two competing groups and find the solutions of the problem. At last a final meeting comes where students take roles and deliver the solutions. Play projects are most successful in practical classes as they involve no explanation of the new material or information exchange between the teacher

and the students. The latter may seek informational, make some research. Thus, the method of projects provides high cognitive activity of the students and helps to assimilate new knowledge and to develop skills.

### **5. *Storytelling***

Storytelling teaches future professionals the rules of work with the help of myths and stories from professional life. Speaking about the content of professional work, its specificity and emerging situations, the teacher prepares the student for understanding traditions, philosophy, culture and professional activities. Maximum objective information should be provided to avoid the future specialist's disappointment in his/her occupational choice. The method helps the students quickly learn the specifics of the job, governing documents, career prospects, etc. This method helps students adapt more quickly to the profession and form value judgements of the professional activities as a whole and their role in society, which is fundamental for the professional competency of the future specialist.

## **PART II. PSYCHOLOGY OF HIGHER EDUCATION**

### **Lecture 8. Psychology as a Science**

- 1. *History of Psychology***
- 2. *Approaches to Psychological Knowledge***
- 3. *Branches of Modern Psychology***

#### **1. *History of Psychology***

Psychology has been defined as the study of the soul, mind, consciousness, behavior and other subjects during its history. In Ancient Greece, for example, psychological knowledge was included into philosophy. Although modern definition of psychology is well known, it is important to realize that the word psychology has its roots in ancient meanings associated with philosophy. The Greek word 'syche' means soul, and the word 'logos' means knowledge, cognition. Consequently, to philosophers living 400 to 300 B. C., study of the mental life of a man was called the "study of the soul." This was the meaning given by Socrates, Plato, and Aristotle to our consciousness. In view of the fact that these thinkers, particularly Socrates and Plato,



did not believe that animals have souls, it becomes evident why for many centuries psychology's main attention has been given to human beings. The ancient philosophers asserted that the soul is the seat of inner, mental life. And the word 'psychology' appeared in the 16th century to name a section of philosophy. It is consciousness that makes mental life possible. This is why psychology is often thought of as the science of the mind. Although psychology no longer is thought of as the study of the soul, this original meaning survived with its emphasis on human behavior and the importance of cognition. Indeed, this meaning is the one given to psychology by William James, the famous American psychologist. Working at Harvard a little more than one hundred years ago, James defined psychology as "the science of mental life." He believed that the purpose of psychology should be to investigate such mental processes as thinking, memory, and perception.

Nowadays the word 'psychology' names three spheres of psychological knowledge - that is everyday psychology, scientific psychology and philosophical psychology.

The subject matter of psychology is defined according to the content of the notions and concepts that some psychological school considers as basic. The psychology that we study is the science of facts, mechanisms and phenomena of psychic life of men and animals.

## ***2. Approaches to Psychological Knowledge***

Modern psychology arose in the context of what are known as schools of psychology, or approaches to building up psychological knowledge. From a historical perspective, the first school of psychology to be established was structuralism. Its founder was Wilhelm Wundt who established the world's first psychological laboratory. Wundt was trained in physiology, the study of the functions of the body. He became interested in studying how simple sensations associated with the sense organs combined to form what we call human consciousness and what was the "structure" consciousness. Wundt trained assistants in the art of introspection, a skill characterized by paying attention not to the whole pattern of a stimulus, but to an elemental part of a stimulus. Consequently, a trained introspectionist was not supposed to say, "I see a tree." Instead,

he or she was supposed to say, “I see here a patch of green,” and “I see there a bit of brown,” and so forth.

William James (1842–1910), teaching at Harvard in the 1870s, was following Wundt’s research with great interest. James had an interest not only in psychology, but also in physiology and eventually in philosophy. James founded a psychological laboratory at Harvard; he also authored ‘The Principles of Psychology’, the first psychology textbook published in the United States. The book was published in 1890, and this can also be taken as the date when the school of psychology known as functionalism was born. According to James, psychology should be more interested in how the mind functions, or works, than how it is structured. Consequently, James stressed the importance of studying such processes as thinking, memory, and attention. You will recall that James defined psychology as “the science of mental life.”

The German psychologist Max Wertheimer (1880–1943) was also dissatisfied with Wundt’s structuralism. Wertheimer believed that Wundt’s emphasis on the importance of simple sensations as the building blocks of perceptions was misguided. According to Wertheimer, a melody, for example, is more than an aggregate of sensations. It is a pattern. And the perception of the melody depends much more on the pattern itself than on the individual notes. The general pattern that induces a complex perception is described with the German word ‘gestalt’. Gestalt is usually translated as a “pattern,” a “configuration,” or an “organized whole.”. In brief, Gestalt psychology asserts that patterns, or configurations, of stimuli have a powerful effect on how we think and perceive the world around us.

Behaviorism is one more classical school of psychology. Its founding personality is John B. Watson (1878–1958). A wave of enthusiasm for Watson’s ideas swept him to the presidency of the American Psychological Association (APA) in 1915, and this can be taken as the starting date for behaviorism. Doing research first at the University of Chicago and then at Johns Hopkins University, Watson came to the conclusion that psychology was placing too much emphasis on consciousness. He thought that since conscious processes could not be located, explained and measured it is of no use researching them. In fact, he asserted that psychology is not a mental science at all. The “mind” is a mushy, difficult-to-define concept. It can’t be studied by science because it

can't be observed. Consequently, Watson asserted that the purpose of psychology should be to study behavior itself, not the mind or consciousness. So Watson insisted that the only subject matter of psychology was behavior as only the behavior could be studied objectively. Behaviorism has been very influential in American psychology. It inspired a psychologist named B. F. Skinner to study the process of learning. Skinner in time became the most famous behaviorist of the twentieth century. The main goal of behaviorism was to control and to predict people's behavior so it quickly became wide spread and popular.

Freud's original work was done with a colleague named Josef Breuer (1842–1925). Breuer and Freud collaborated on the book *Studies on Hysteria*. Published in 1895, it is the first book written on psychoanalysis. This can also be taken to be the starting date for the school. After the publication of this first book, Freud went on alone without Breuer; it was a number of years before he worked again with colleagues. The word hysteria is a diagnostic label. It used to be assigned to a patient if he or she was experiencing neurological symptoms that were thought to be imaginary in nature. In order to explain chronic emotional suffering, Freud asserted that human beings have an unconscious mental life. This is the principal assumption of psychoanalysis. No other assumption or assertion that it makes is nearly as important. The unconscious mental level is created by a defense mechanism called regression. Its aim is to protect the ego against psychological threats, information that will disturb its integrity. (The ego is the "I" of the personality, the center of the self.) The kind of mental information repressed tends to fall into three primary categories: (1) painful childhood memories, (2) forbidden sexual wishes, and (3) forbidden aggressive wishes.

Contrary to Freud, the father of humanistic approach Carl Rogers put greater emphasis on conscious experiences of the present situation, role of interpersonal experiences across the course of life, and people's capacity to grow toward psychological maturity. This approach basically assumes that a person is an active and self-actualizing agent and has a choice in deciding his behaviour. As a part of the self-actualizing process a person seeks to maintain a congruence between self and experience. However, because of past experiences with conditional positive regard, he may deny or distort the experiences that threaten one's self-system. Such a self-system

can be changed in the therapeutic setting through genuineness, unconditional positive regard, and empathic understating of the client's problem by the therapist. Two processes that tend to receive emphasis are the need for self-actualization and the will to meaning. Self-actualization, as defined by the psychologist Abraham Maslow, is the need to fulfill your talents and potentialities. The will to meaning, as defined by the psychiatrist Viktor Frankl, is a deep desire to make sense out of life and discover values to live by. The subject matter of humanistic psychology is thought as free and creative personality.

In the 1950s and 60s, psychology needed a scientific revolution. The dominant behaviorist paradigm limited the nature of what psychology could study and how those studies should be conducted. Neisser made this revolution by writing a book 'Cognitive Psychology'. So the cognitive approach emerged as an alternative to the mechanistic paradigm of behaviorism. This viewpoint asserts that an immediate cause of a given action or an emotional state is what a person thinks. This approach mainly focuses on the study of information processing capacity of the individual in terms of perception, memorizing, thinking, language, reasoning, problem solving and decision making. It proposes that we look out for information in the world and our behaviour depends upon the way we process this information.

### ***3.Branches of Modern Psychology***

General psychology is the brunch of psychology that studies of the basic principles, problems and methods underling the science of psychology. It deals with the concepts, the general items in human development, emotions, motivation, senses, perception, thinking, memory, intelligence, interaction and behavior.

Social psychology is a branch of psychology that studies cognitive, affective, and behavioral processes of individuals as influenced by their group membership and interactions, and other factors that affect social life, such as social status, role, and social class. Social psychology examines the effects of social contacts on the development of attitudes, stereotypes, and so forth.

Developmental psychology -- studies emotional, cognitive, perceptual and other changes that occur in human beings during their life span.

Educational psychology includes study of theories of learning and motivation, moral development during learning and teaching, the desire of teachers to improve their skills, methods, and testing. In a broader sense, anyone that provides guidance, instruction, mentoring, and example to another is considered an educator.

Engineering psychology is a branch of applied psychology specifically concerned with the discovery and application of information about human behavior and its relation to machines, tools, and jobs so that their design may best match the abilities and limitations of their human users.

Engineering psychology can be properly viewed as part of industrial psychology. The latter includes such additional topics as personnel selection, training, classification, and promotion; labor relations; morale and human relations; organizational management; and consumer behavior.

Space psychology is the branch of psychology that investigates the influence of the special conditions and factors of space flight on the psychological aspects of the activities of astronauts.

Comparative psychology studies differences and similarities of behavior organization, perception, and other psychological aspects of human beings and animals.

Clinical psychology is the field associated with psychotherapy and psychological testing. A clinic is a place where sick people go for help; consequently, clinical psychologists try to help persons with both well-defined mental disorders and serious personal problems. Clinical psychology is the largest single field of psychology. About 40 percent of psychologists in Western countries are clinical psychologists.

## **Lecture 9. Research Methods in Psychology of Higher Education.**

- 1. *Theory and Data Gathering***
- 2. *Observation***
- 3. *Experiment***
- 4. *Case Study***
- 5. *Survey***
- 6. *Psychological Tests***
- 7. *Questionnaire***

## ***8. Interview***

### ***1.Theory and Data Gathering***

Psychology is an empirical science. Its concern is with questions that can be answered by making a research. As with any science the real challenge is to ask the right questions and to design data gathering techniques that will answer them. Whether or not a question is the 'right one' often depends on theory.

There are two different purposes of a psychological investigation. Some investigations are rather aimed at testing a theory and to see if the prediction of a theory is actually the case. The result from such a study may increase the theory's credibility or they may point to the need for the theory's modification or rejection. Other investigations are more oriented to fact gathering. A psychological research carried out scientifically has the characteristics of objectivity which means that such researches are free from any kind of individual motives or intentions. The scientific studies have also the characteristic of replication which means that the results of the study are consistently verified by similar other studies across different settings.

### ***2.Observation***

Observation as a method of research is exercised as perceiving and systematic registering of events without interfering them. This method is used in natural as well as in laboratory settings. When it is used to study the events happening in natural environment it is called natural observation. Techniques for natural observation have a long history and have been developed largely by etiologists. He or she simply records the entire activities and then analyzes them. The observer may use some form of a checklist of specific behaviors and mark also duration and location of the situation observed. On the contrary in the case of laboratory observation the event under study is controlled by a trained experimenter.

Observation is also divided into participant and non-participant types depending on the role of observer. In the case of participant observation the researcher mixes up with the subjects and takes part in the event under study. Where as in the case of non-participant observation the researcher maintains an optimum distance and has little influence on the events under study. One of the most important advantages of

observation is that it studies the process of behavior as it is happening at the moment. However, this method requires more time and effort, than other methods.

It is important for data gathering through observation that the behavior observed is not distorted by the artificiality and unfamiliarity of the laboratory setting. The presence of the experimenter or simply knowing that one's behavior is being observed and recorded might result in atypical behavior of a subject.

### **3. Experiment**

The experiment is the usual means by which science establishes causal relations. All experiments have one or more independent and dependent variables. The independent variable is the set of conditions established by the experiment. The experimenter controls and changes the independent variable as it is needed by experimental conditions. The dependent variable is that aspect of the subjects' behavior which is measured by the experimenter and which is potentially influenced by the independent variable. So the purpose of an experiment is to establish a cause-effect relation between the independent and dependent variables. The causal relations may be proved only if we are sure that any influence on the dependent variable has been produced by dependent variable and not by some random factors. The influence of such random accidental factors is commonly stated as experimental error. The well-designed experiment ensures that causal influence is the main one. In a simple experiment two groups are formed. One is an experimental group in which participants are influenced by the independent variable. The other is a control group in which behavior is observed without giving the independent variable. By manipulating independent variable the experimenter is in a position to state that change induced in one variable brings change in another variable. Apart from these variables the experimenter has to also simultaneously take care of other variables which are beyond his or her control. Such variables may confound the effect of independent variable.

Experiments that are carried out in controlled setting are called laboratory experiments. Experiments are sometimes designed for natural life conditions and are called field experiments. Like laboratory experiment independent variable is manipulated and participants are assigned to different groups. In quasi experiments

independent variable is manipulated in natural setting with naturally occurring groups to form experimental and control groups.

#### ***4. Case Study***

In the field of psychological enquiry case study method has its own importance and relevance. In this method the main unit of analysis is the individual and his experiences across different contexts in life. It focuses on the individual's interactional patterns with significant others as well as his personal experiences across different real life situations. In order to prepare a case history of data are taken from many sources for example his or her family history, educational life, medical history and social life. This method is very popular in clinical psychology and life span developmental psychology. In order to prepare the case history usually interview, observation and psychological tests are used to obtain information about the individual. The data collected through these techniques are analyzed in detail. A comprehensive profile of the individual is developed which reflects the description of events in his or her life. Case study helps to locate unique experiences of life as well as various emotional and other problems of the subject. We also get information from various sources such as family members, friends.

#### ***5. Survey***

You might be aware that television news channels or newspapers ask you to send your view through SMS on current issues of national or international importance. While doing this they try to seek the opinion of people on those issues to communicate their view to the Government as well as to the society. For example they conduct opinion poll during the election as to which political party enjoys support of the majority of the people. Conducting such a study is called survey research. It is one of the popular research methods not only in psychology but also in other disciplines such as sociology, political science, economics and management. In psychology survey method is generally used to study the pattern of opinions, attitudes, beliefs and values of the people. This method is also used to test the hypothesis about the relationship of variables especially when some incident takes place. In order to collect the data from people a variety of sources are used such as directly contacting the participants with a set of questions and taking their interview, sending the questionnaire through email or through post and asking them to send SMS by their mobile phones. Thus in survey,



research is generally conducted through questionnaire or interview. It can be conducted on a single individual as well as on a group.

### ***6. Psychological Tests***

You must have heard about psychological tests which measure intelligence, aptitude and interest. Development of test is a major area of activity in psychological research. The tests are designed and developed to assess various psychological attributes. They are developed on the basis of a theoretical framework. For example a test of intelligence is developed following a theory of intelligence. These tests are administered to the individual alone or in a group setting. The obtained score of the individual on the test reveals his or her position in relation to others who also respond to the same test. Thus a psychological test provides an objective assessment of different qualities and limitations of the individual. A standardized psychological test has properties of reliability and validity. Reliability of a test refers to its consistency in terms yielding dependable scores. Validity of a test reveals the extent to which the test measures what it claims to measure. Depending on the nature and administration a test can be either verbal or non-verbal (performance). In a verbal test the responses are taken in oral form. In non-verbal or performance test the responses are taken in the form of performance or certain behavior.

### ***7. Questionnaire***

A questionnaire consists of a set of questions to which the individual is required to respond. The items (questions) of the questionnaire can be either in closed-ended form or in open-ended form. In the case of closed-ended item the individual is provided with limited alternative and he or she has to choose only one alternative which reflects his or her view on the item. In open-ended items the individual is free to give his or her response the way he or she likes. The instruction as to how to respond to the items of the questionnaire is written on the first page. Data from a large number of individuals can be taken at a time as the questionnaire can be easily administered to a group of people. The items of questionnaire are written in simple and explicit language so that anyone can understand it. All the items tap various aspects of the construct which is measured. The items are often arranged in the sequence from general to specific.

## ***8. Interview***

It is a techniques of data collection in which a face-to-face interaction occurs between two persons with a set of objectives. The person who conducts interview is called interviewer and the person who give responses is called interviewee. The interviews are also conducted through telephone, internet information. These are structured interview and unstructured interview. In the case of structured interview the questions are already framed with the possible response options. The interviewee is required to respond to the set of framed questions by choosing one option. For example, the attribute of friendliness can be measured by giving the option ranging from 'highly friendly', 'often friendly' to 'least friendly'. Unstructured interview is a little flexible. It comprises of a variety of open-ended questions and the interviewee gives his or her responses as freely as possible. During the course of interview the interviewer also frames and reframes the questions and facilitates the entire process of interview. Conducting interview to recruit suitable candidates for a particular job is a good example of unstructured interview.

## **Lecture 10. Memory and Learning**

### ***1. Concept of Memory***

### ***2. Types of Memory***

### ***3. Method for Learning***

#### ***1. Concept of Memory***

The memory demands are greater for adults. As adults, we have already acquired much of the knowledge and skills we need to function day to day. Although the knowledge base for some fields such as technology changes rapidly, the new information is generally highly specific and builds on existing knowledge. On the other hand, school children are constantly bombarded with new knowledge in multiple topic areas in which they may or may not be interested. Additionally, they are expected to both learn and demonstrate the mastery of this knowledge on a weekly basis. Thus, an effective and efficient memory is critical for school success. Many students have memory problems. Students who have deficits in registering

information in short-term memory often have difficulty remembering instructions or directions they have just been given, what was just said during conversations and class lectures and discussions, and what they just read. Students who have difficulty with working memory often forget what they are doing while doing it.

For example, they may understand the three-step direction they were just given, but forget the second and third steps while carrying out the first step. If they are trying to solve a math problem that has several steps, they might forget the steps while trying to solve the problem. When they are reading a paragraph, they may forget what was at the beginning of the paragraph by the time they get to the end of the paragraph. These students will look like they have difficulty with reading comprehension. In fact, they do; but the comprehension problem is due to a failure of the memory system rather than the language system. Students who have deficits in the storage and retrieval of information from long-term memory may study for tests, but not be able to recall the information they studied when taking the tests. They frequently have difficulty recalling specific factual information such as dates or rules of grammar. They have a poor memory of material they earlier in the school year or last year. They may also be unable to answer specific questions asked of them in class even when their parents and/or teachers think they really know the information.

### ***3. Types of Memory***

Memory is one of the mainstays of intelligent life: perception and thought are the others. In Russian language psychology memory is included into psychological processes that are as follows: sensation, perception, memory, imagery, thought and speech. Memory is and always has been one of the central topics in psychology because intelligent life, personality development is based on memory.

There is a classification that distinguishes between procedural, semantic and episodic memory. Procedural memory is memory for how to do something in order to reach a goal. It includes our behavior rather than thought, it requires practice and can be used automatically in the absence of directed attention. It is based on the learning and using perceptual-motor skills such as reading and writing, speaking, riding a bicycle, playing piano, walking, jumping and so on.

Semantic memory represents a person's knowledge of the world and is based on language and language usage to represent facts, names, ideas, thoughts. Unlike procedural

memory there is no necessary connection between knowledge and behavior in semantic memory. Semantic memory information can be acquired very quick. It also may have truth value because what a person knows may be true or false.

Episodic memory is the kind of memory that makes possible remembering of events from one's personal life. Your recollection of what you did last Sunday or what school you have finished make your episodic memory. This kind of memory keeps for us events and situations of our past life.

Psychologists also distinguish among a number of different kinds of memory "short term" or "working" memory and "long-term" memory. When we talk about student learning, we're mostly talking about "long-term" memory -- though working memory is not by any means irrelevant.

Psychologists distinguish between two expressions of memory: explicit memory is conscious recollection, while implicit memory is the unconscious influence of some past event on the person's experience, thought, or action. And there are also two forms of learning: explicit learning is what we ordinarily mean by learning, while implicit learning is the kind of learning that takes place when you're not consciously aware of what you've learned.

#### **4. Method for Learning**

Laboratory research made a practical system for studying and learning, called the PQ4R method.

- Preview -- Before reading, *survey* (that's where the S comes from in SQ3R) the material you're trying to learn. Look at the section headings, note any new terms that are in bold face. Get yourself ready to learn and remember by establishing an appropriate schema.
- Query -- Based on your survey, make a list of questions that you want answered by the text, so that you can read the text with those questions in mind.
- Read -- Read *carefully*. Don't skim -- you already did that in your preview. Read with the intent of answering the questions you formulated.
- Reflect -- After you've read the chapter (or, better yet, a smaller section of that chapter), think about how what you've read relates to the questions you formulated (this is the fourth R, added by Anderson to the standard SQ3R). Go over any examples used. Think about how the material relates to what you already know.

- Recite -- Now put the text aside and try to recall the material that you've read by answering the questions you formulated earlier.
- Review -- Go back and compare your recall to what you read, and see if there are any discrepancies that need correction.

To which we can add a fifth R:

- Repeat -- Now go back and do it again, perhaps after reading the *next* chapter or section. Students tend to think that if they've read some material once, that's enough. It isn't. There's a reason that we say that they should spend at least two, maybe three, hours outside class for every hour they spend inside class. For a student taking 12 credits (assuming that one isn't volleyball, but even if it is), that means 24-36 hours of study per week outside of class.

## **Lecture 11 Concept of Thought and Students Thinking Development.**

### ***1. Notion of Thinking***

### ***2. Conceptual Thinking***

### ***3. Creative Thinking***

### ***4. Higher Level Thinking***

### ***5. Explaining Genius***

#### ***1. Notion of Thinking***

Thinking is a cognitive process and the sort of mental activity that uses facts to plan, order, and work toward an end; seeks meaning or an explanation; is self-reflective; and uses reason to question claims and make judgments.

Thinking is a symbolic activity, it is a goal-directed activity, it goes beyond the information given. So the first essential property of thinking is that thinking is a symbolic activity. As a symbolic activity thinking is closely connected with language and our thought uses language to develop and to solve problems. Using language enables the person to compare and evaluate courses of action without actually having physically to suffer their consequences. Without symbol systems there could be no planning of action, no weighing the alternatives, in short, no thought would be possible. The second essential property of thinking is that thinking goes beyond the information

given. Psychologists regard thinking as using the information about something present to get somewhere else. Thinking is a process of filling in gaps, of taking fragmentary evidence and using it as the basis for constructing a meaningful whole. And the third essential property of thinking is that thinking is goal directed activity. So, thinking is purposeful; we think to solve some problem, to resolve some conflict, or to decide on course of action. For psychological study of thinking a proper understanding of its goal-directed nature is of great importance. Without knowledge of the goal a coherent account of thought processes is impossible.

## ***2. Conceptual Thinking***

We perceive objects and events not as isolated entities but as members of a more general class. An object that we have never seen before might be recognized as belonging to a general class of objects. This assignment of an object or event to a general class is termed conceptual thinking. Thinking conceptually, we are able to make use of the well-practiced inferences associated with a concept.

Concepts can represent objects, activities, or living things. They may also represent properties such as color, texture, and size (for example, blue, smooth, and tiny); things that are abstract (for example, faith, hope, and charity); and relations (for example, brighter than and faster than). Concepts come in a variety of forms, including concrete, abstract, verbal, nonverbal, and process.

When a student is exposed to a new concept, it is important to connect the new concept to concepts he already knows. He can do by classifying, categorizing, recognizing patterns, or chaining. The idea behind each of these connecting processes is to find all the relatives of that concept and make a “family tree” for the concept. A student needs to practice concept connection. When he is exposed to new information, he should look through his memory for things that seem related to the new information.

Conceptual thinking applies or creates new constructs, models, theories, or frameworks that explain and give meaning to scientific problems, events or situations; Involves identifying patterns or connections between situations that are obviously related, and identifying key or underlying issues and trend in complex situations; Includes using inductive reasoning that allows one to form ideas about groups of events or situations. People with conceptual skills are creative and can work through abstract

concepts and ideas. It may be summed up like this: learning is the making of meaning. Meaning is making connections. Connections are the concepts. "In order to learn something, we must understand its meaning. We make meaning by connecting new ideas to ones we already have. The links or chains with which we connect new ideas or information to ones we already know are their common concepts". Concepts are the fundamental building blocks for thought. We experience our world through a conceptual or categorical filter concluded that all learning can be reduced to skill learning, problem solving, or concept learning. Concept learning is dependent upon the ability to abstract, generalize, categorize, and establish relationships between symbols and referents. When one of these abilities is underdeveloped, students struggle with applying new concepts to real world settings. Concept learning has been characterized as a mental construct that provides organized information concerning an element or class of elements and helps discriminate between that element or class of elements and others. Types of concepts differ across a continuum of concreteness to abstractness. A concept has a unique set of attributes that distinguish it from other concepts. In addition, its number of attributes adds to its complexity.

### ***3. Creative Thinking***

The term creativity is usually reserved for the ability to solve problems in which the movement from the initial or given situation to the goal is particularly striking in its originality and the solution demands a departure from usual methods and procedures. Creativity is a matter of degree and it would be a mistake to suppose that sharp line divides creative from noncreative thought. Moreover, there is a measure of subjectivity in the evaluation of creativity. Nonetheless people can generally agree that some patterns of thought are more creative than are others. Some psychologists define creativity as a way to meet challenges and dissatisfactions with: openness, humor and a sense of possibility, practical intelligence to turn ideas into reality, energy and focus to see it through.

Creativity is what allows us to see fresh possibilities and alternatives; it teaches us not to fear difficulty and change. Without the ability to think creatively, we tend to close our minds and become entrenched in familiar ways of thinking. In a world

fraught with uncertainty, creative thinking skills are vital. So, if the role of education is to prepare young people for the world and allow them to flourish in it, teachers need to find ways to encourage and develop creativity in university students.

There are two strategies of thinking which are called divergent and convergent thinking. Divergent thinking generates a lot of ideas, questions, hypotheses, including silly, left-hand ideas. Convergent thinking is a one-way thinking to a solution of the problem. Divergent way of thinking often leads to creative decision-making.

Study of the creative problem solving made it possible to describe the phases of this process: preparation -formulating the problem, collecting information, and making an initial attempt to solve it; incubation - setting the problem aside, not thinking about it for a time; illumination -gaining insight into how to solve the problem; verification -checking the solution to make sure it really works.

#### ***4. Higher Level Thinking***

Higher level thinking is thinking on a level that is higher than memorizing facts or telling something back to someone exactly the way it was told to you. When a person memorizes and gives back the information without having to think about it, we call that *rote* memory. That's because it's much like a robot; it does what it's programmed to do, but it doesn't think for itself. Higher level thinking, takes thinking to higher levels than restating the facts. Higher level thinking requires that we do something with the facts. We must understand them, infer from them, connect them to other facts and concepts, categorize them, manipulate them, put them together in new or novel ways, and apply them as we seek new solutions to new problems.

To understand a group of facts, it is important to understand the conceptual "family" to which this group of facts belongs. A concept is an idea around which a group of ideas revolves – a mental representation of a group of facts or ideas that somehow belong together. Concepts helps us to organize our thinking. When a person memorizes and repeats back the information without having to think about it, we call it rote memory. That's because it's much like a robot; it does what it's programmed to do, but it doesn't think for itself. Higher level thinking takes thinking to higher levels than restating the facts. Higher level thinking requires that we do something with the facts.



We must understand them, infer from them, connect them to each other, categorize them, manipulate them, put them together in new or novel ways, and apply them as we seek new solutions to new problems.

Higher level thinking includes concept formation, concept connection, getting the big picture, visualization, problem solving, questioning, idea generation, analytical (critical) thinking, practical thinking, and synthesizing and creative thinking. It includes being able to construct similes, metaphors and analogies that represent concepts. Psychologists say that successful people consistently and interactively use analytical, creative, and practical thinking.

Metacognition means thinking about thinking. There are two basic parts to metacognition: thinking about your own thinking and knowing about knowing. Generally speaking, good students understand the way they think. Knowing about knowing encompasses understanding the difference between memorizing and understanding and between surface and deep knowledge. A person needs to know his mental strengths and weaknesses. Am I good at solving problems, understanding concepts, and/or following directions? Am I more analytical, creative or practical in my thinking? Do I learn best by listening, seeing, or doing – or by a combination of all three? Which memory techniques work best for me?

The second part of metacognition is knowing how to monitor and regulate how one thinks and learns. It is deciding how to best accomplish even a simple task by using specific strategies and skills effectively. For example, how would you go about the simple task of learning new spelling words? By analyzing them by phonemes or by syllables? By writing them several times? By spelling them aloud a number of times? By spelling them aloud while simultaneously writing them?

Metacognition requires mental self-management. Mental self-management can be described as an expanded view of metacognition. Mental self-management is composed of six key steps: knowing your strengths and weaknesses; capitalizing on your strengths and compensate for your weaknesses; defying negative expectations; believing in yourself – self-efficacy; seeking out role models – people from whom you can learn; seeking out an environment where you can make a difference.

We often think that a student's ability to engage in higher level thinking is determined by IQ, but this is not the case. Higher level thinking skills can be taught and learned.

### ***5. Explaining Genius***

Creative thinking is the quality that most people regard as the essence of genius. A genius is commonly regarded as someone who displays an unusual capacity for creative problem solving, but the term has no precise within psychology. In science genius may mean making new discoveries or formulating new theories. In the arts it usually means achieving new depths of understanding and perhaps devising new forms through which to express them.

What makes a genius? We will note two characteristics and one common misconception. The first characteristic is sensitivity to problems. Creative scientists know how to pick problems that are important – which ones to concentrate on and which ones are likely to yield a major breakthrough. A second characteristic is the capacity to engage in the kind of thinking we have termed productive, to think laterally, to redefine a problem space. Often this means viewing a problem from a different perspective. It may be something quite simple such as the novel idea of placing the eye in the point of the needle to make the sewing machine possible or some theory in physics.

A major misconception is that genius is a matter of inspiration, not of training. With a few exceptions genius is a highly trained expert in his or her area of discovery. An appreciation of this fact removes much of the excessive mystique that surrounds the creative act. The creations of a Mozart, a Michelangelo, a Jane Austin or a Nikola Tesla occur against a background of highly developed skill in the use of relevant symbol systems – music, painting, language, mathematics. The possession of such skills doesn't in itself guarantee creativity or make a genius, but this fact should not lead to the false conclusion that such expertise is unnecessary or even a hindrance.

## Lecture 12. Methods of Creative and Critical Thinking Development

- 1. Method of “Three Ifs”*
- 2. Practice dreaming*
- 3. Work in a Team*
- 4. Development of Creativity in University Students*
- 5. Concept of Critical Thinking*
- 6. Development of Critical Thinking Skills*

### *1. Method of “Three Ifs”*

Many good innovators take an existing object and ask clever questions to twist the very concept of it and make it new. Steve Jobs didn't start with the idea of a smartphone. He just took an existing cell phone and asked a very simple question: how can we improve it to make it better – or the best?

Let's be clear about this – there are no universal recipes for innovation, and each person should develop her or his own approach depending on specialty, interest, type of thinking, or even the type of team s/he is participating in.

That said, I usually suggest my students build creative thinking around three “ifs”: what would happen if I change it (the object/ system/ social relationship, etc.); what would I change or improve about this object if I wanted to use it in 10 years; what would I do if I had a one-million-dollar investment to improve it? These questions can become powerful tools that can help you to think differently. It is important to exercise these skills by repeatedly using the “three ifs” formula (or designing your own set of questions) about all sorts of things. And many new ideas will pop up.

For example, for several semesters I kept asking my students, let us take a bicycle, think about it and ask the “three if” questions, so we can come up with a new idea. Initially the students strongly resisted and were very skeptical. However, after several rounds of discussions and brainstorming they began to come up with many new creative ideas. We narrowed down those innovations into small course projects and my students' teams won several cash awards to implement their creative ideas.

### **2. Dreaming Practice**

The greatest paradox is that creative thinking is not necessarily the product of IQ or enlightenment via the proverbial apple falling on your head. It is a matter of regularly training your imagination, practicing your powers of observation and dreaming, big or small. It sounds so simple, and yet in this era of information overload and highly charged urban life, this important element is often missing from our everyday lives.

All too often we stay focused on the main task at hand, devoting our mental powers to routine actions (including Twitter and SMS – well, I am sometimes guilty of this too), so that at the end of the day the most creative idea we can come up with is just to finally take a break in front of the TV or computer screen. Sound familiar?

Whatever you're doing – whether it's work or leisure – practice spending time applying the “three ifs” formula to anything you see or imagine. This will help you get into the habit of making space in your mind for dreaming – essential for creative thinking and innovation.

### **3. Work in a Team**

Even a great innovator needs people around her or him to discuss – or “bounce” – new creative ideas and innovations. What do the major innovative ideas of our time have in common, from Microsoft (well, when it was young) to Google? All of them were created by teams of people who stayed together to conceive the idea, plan their innovative projects, take them to investors and the public, and most importantly jointly brainstorm those innovations within the team – bouncing ideas, questions and improvements until the product was perfected to become the next multi-billion dollar “eureka.” Therefore, a final important asset to add to your innovation skillset, is the ability to be a valuable team player, capable of bouncing ideas to the next level. For some young people this is very natural, while for others it does not come so easily to be a team player. But it is never too late to train yourself in this mode of interacting.

### **4. Development of University Students Creativity**

Is it possible to cultivate creativity? Current thinking and research by educationalists and cognitive scientists says it is, and that creativity is in fact essential in order to prepare young people for the difficulties and challenges that will face them as they navigate their path through our fast-paced and fast-changing world. So how do we

educate young people in creativity? The creative mind is curious and wondering; it is patient and determined and will not be satisfied until it works out solutions to the challenges presented to it; it's imaginative and it is crafty in the sense that it likes to tinker and experiment. Are these qualities which can be taught and developed? Actually, they are attributes which all young children possess, but which they begin to lose as the ability to be rational and logical starts to assume greater importance, usually around age 9. Claxton, however, believes that we can and should cultivate and prolong that natural childhood creativity, and has identified ways of teaching the characteristics of the creative mind:

**Curiosity** - Curiosity can be taught by presenting learning in the form of 'jungles' and mysteries. This helps students to want to discover or work out the answer - a similar impulse keeps us following the plot twists of a mystery novel or TV serial, and is undeniably effective. Teachers must not stifle curiosity by interrupting; they should expect and encourage students to seek evidence that the information being presented to them is true rather than viewing such challenges as disrespectful, and in this way they will allow their students' passions to develop and evolve.

**Determination** - Resisting the urge to come too quickly to the rescue of a student who is struggling with a particular idea helps to foster their determination to work things out for themselves. Sharing your own difficulties can also be helpful, and encourages them to see that finding something difficult is interesting rather than shameful, and that being slow does not mean they are stupid.

**Imagination** - Imagination is an essential part of creativity, but it can be stifled by the over-structuring of students' time. The analogy might be the parent who strives to fill the school holidays with interesting activities for their child, thereby depriving them of the ability to think up ways to entertain themselves. To encourage imagination, we must allow time for stillness, reflection, even boredom, meditation.

**Craft** - is the inclination to try out or experiment with different ideas, can be developed by giving students time and space to leave work in progress so that they have time to figure out how to make it the best that it can be. This has the effect of making students in universities and schools more resourceful and resilient and better at giving and receiving feedback.

#### ***4. Concept of Critical Thinking***

Being ‘critical’ does not mean just being negative, or pointing out what is wrong about something. At master’s level, ‘critical’ means “Fully informed, capable of supporting in-depth analysis and assessment”.

Taking a critical approach in your studies and professional development can include behaviors such as: thinking carefully about what you read and why; judging what resources are credible, reflecting on and developing your search techniques, not just looking for and reading the obvious and / or the first things you come across; questioning and testing what you read: do the author’s viewpoints and ideas appear justified? Why – or why not?; looking for connections (or disparities), and constructing your own arguments supported by a range carefully considered viewpoints, not just repeating the ideas of others; being inquisitive, and asking good questions – of others, and of yourself; spotting and challenging potential bias, distorted views, prejudice, and self-interest – in the work of others, and in your own thinking; challenging ideas - where appropriate, and based on credible evidence; looking for gaps, and suggesting new or different solutions; reflecting on and adapting your own professional practice based on your developing insights; ‘Critical’ in University work means being thoughtful, asking questions, not taking things you read (or hear) at face value. It means finding information and understanding different approaches and using them in your writing.

#### ***6. Development of Critical Thinking Skills***

Experts in critical thinking suggest, that the ideal critical thinker is habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fair minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results which are as precise as the subject and the circumstances of inquiry permit. Critical thinking has many dimensions. The ability to know what skill to use in a particular situation and to be able to apply that skill without bias and taking others’ views into consideration is not easy to learn and is even more difficult to teach. There

are, however, a number of critical thinking skills that we can teach our students in order to develop these higher order thinking skills and empower them to be critical thinkers. A selection of those skills is as follows: consideration and evaluation of different points of view; open-mindedness; development of a logical argument with appropriate evidence; identifying the flaws, weaknesses or strengths of an argument; identifying bias in themselves and others; establishing priorities or decoding significance; analysis of the quality of sources; synthesis from a variety of sources; deduction – reasoning from the general to the specific; induction – reasoning from the specific to the general; problem solving, even with previously unknown problems; development of criteria for evaluation; evaluation of their own decision making; evaluation of their own work and that of others; purposeful, reflective judgement;

Framework for evaluating the sources by asking them to answer the following questions:

- Who has written this source? Who has checked it to ensure it is correct?
- Why should I believe them? (Do they have any authority? Could they be biased in any way by belonging to a particular commercial enterprise or political party, for example?)
- Who is the intended audience of this source?
- What is the main point that the authors are trying to make in the source? What evidence are they using to justify their point of view?
- When was the source written and have things changed that would affect its validity?
- Where was the source written and is it applicable to your argument in your location?

## **Lecture 13. Verbal and Nonverbal Behaviors of a Lecturer**

- 1. Lecturer's Verbal Behavior.***
- 2. Linguistic Relativity Theory***
- 3. Gestures of a Lecturer.***
- 4. Non-verbal Behaviors in Class***

### ***1. Lecturer's Verbal Behavior.***

Verbal behavior of a lecturer is of great importance for effective teaching of students and their intellectual and personal development. Lecturer's speech influences student's thinking, emotions, regulates student's behavior and attention. Language is regarded as the means of teaching, and speech is considered as the process that arranges interaction.

In a lecturer's verbal behavior we can distinguish language related and speech related features. Phonemes (sounds), intonation, vocabulary and grammar are defined as language related features, and speech tempo, voice volume in a conversation, pauses, voice timber are defined as speech related ones. Language related features of speech are responsible for concepts in thinking and concept relations, and all of them create our mind's content. Speech related features of communication are responsible for listeners' attention and behavior regulation, speech comprehension, interactional behaviors.

Lecturer must have varied active vocabulary with many abstract concepts to develop abilities of conceptual thinking of students. Lecturer also uses multiple grammar for better and more complicated thinking. The more varied is the lecturer's vocabulary and grammar, the better is his intellectual influence on students.

Speech tempo of a lecturer differs in various situations. It changes in correspondence with age, culture and mental capacity of students. Too high or too slow speech tempo of lecturing may hamper students' understanding, make the ideas presented dull and difficult to perceive. Moreover, a lecturer should mind that lecture in monotonous speech tempo sounds boring and hardly well perceived. So it is necessary for a lecturer to change his speech tempo from slow and very slow to quick. The moment of tempo change helps to stir up students' attention, besides differing tempo helps to differentiate more meaningful words and phrases from less meaningful ones.

It is also important to mind a voice volume in lecturing. Voice volume reduction is more preferable than a loud voice. Low voice of a teacher helps to keep active students' attention during the classes and hence enhance their learning.



Moreover, low voice insures more emotional expression in a lecturer's voice than a loud voice does and so provides lecturer's personal emotional influence on students. Changes in a teacher's voice volume give an impetus to students' attention and are able even to awake the student who is sleeping in a class. Low voice is also a feature of well-educated and well-bred person.

Pauses are also very important for a lecturer's speaking behavior because they make up a moment of silence for both the speaker and the listeners. This short silence is used for speaker's self-evaluation and self-control as well as for listeners' better momentary understanding and learning. Pauses in a lecturer's speech behavior differ in their duration: the more significant is the idea presented the longer is the pause. Short pauses that ignore conceptual speech structure may damage in-depth learning material understanding.

## ***2.Linguistic Relativity Theory***

Dependence of thought on language is presented in in the so-called Whorfian hypotheses proposed by the American linguist. Whorf's position was that language governs our thoughts and perceptions by determining the categories or concepts through which we perceive and understand our world. According to Whorf "We dissect nature along lines laid down by our native language". These categories are determined by both the vocabulary and the grammar of a language. This notion that natural language imposes sharp differences in world view is commonly referred to as linguistic relativity. As an example Whorf describes the words for snow in three different languages. In English there is a single word, but for the Inuit it would be unthinkable to use the same word to refer to falling snow, packed snow, slushy snow, and so forth; they use a large number of different words to distinguish these various forms of snow. The Aztecs, on the other hand, move in the opposite direction and represent cold, ice, and snow all with the same basic word with different endings.

Whorf made a careful analysis of the concepts of time and velocity in the Hopi Indian language and found them to be quite different from those in European languages. The verbs of Hopi have no tenses, a fact that led Whorf to describe it as a

“timeless language”. The Hopi can express duration, but the language does not permit expressions of simultaneity or quantification of time. The Hopi could not say “I stayed five days”. Instead they would have to speak on leaving on the fifth day. The word day cannot be made plural; days cannot be thought of as objects that can be enumerated in the way that physical object can.

According to Whorf, such differences in vocabulary and grammar reflect fundamental differences in the way different cultures think of their world. It is not just that Hopi vocabulary lacks a plural form of the word day. The Hopi concept of time is such that this pluralization would be incomprehensible; to make it comprehensible one would first have to change the way the Hopi think about time.

### ***3. Gestures of a Lecturer.***

Gestures of a lecturer differ from the gestures of a common speaker. Lecturer’s gestures are not numerous as may be ones in everyday communication. The main informative channel is language communication so abundance of gestures just reduces speech informative influence. There are five kinds of gestures; emblems, illustrative gestures, regulative gestures, emotional gestures and rhythmic gestures.

Emblems are the gestures that have exact meaning and may be replaced by a word. Emblem meaning is specified by culture and the same emblem may have different meanings in different countries and areas. Emblems may express some person’s emotions, attitudes, characterize somebody’s behavior, and they are often used for insult. Emblems are usually used in informal communication and everyday behavior. Teachers usually don’t use emblems in class except for some emotional appraisal and maybe some other situations.

Illustrative gestures are also linked with a word meaning but they differ in their forms and are understood only in context of language used. So these gestures have no strict meaning and form and vary according to individual traits of a speaker. Illustrative gestures help to better emphasize the word meaning, so they are used in lecturer’s behavior. But still these gestures should be limited in their number not to take away the students from lecture material perceiving.

Regulative gestures are used by the teachers very often because they are helpful in organizing students' behavior, pointing out some objects and written messages. Regulative gestures are easy to use and to understand, and they make communication double channeled: one channel is occupied by words and the other one is occupied by a gesture at the same time.

Rhythmic gestures are numerous and go along with the teacher's explanation. These gestures are the worst ones in communication because they deliver no meaning and overload the visual channel of a listener so that the perception of a lecture goes down.

#### ***4. Non-verbal Behaviors in Class***

Apart from verbal behaviors, speech related non-verbal behaviors are also important. These include attentive listening behaviors such as eye contact, head nods, or appropriate facial expressions. Teachers' non-verbal behaviors have also been suggested to influence student perceptions of psychological closeness and attitudes towards learning. Moreover, it raises student motivation, enhances prosocial classroom learning outcomes, energy, and promotes engagement with the subject.

Kinesics is defined as the study of body movement, posture, and facial and eye behavior. Type and amount of gaze is considered important for purposes of classroom management and instruction. For instructional purposes looking at the student promotes attentiveness, involvement and positive regard for the teacher. These elements are particularly important when the teacher is working with the single student.

Gaze, gaze contact is very important in non-verbal behaviors in class. Gaze direction has some functions: monitoring functions, regulatory and expressive functions. Gaze patterns differ in different situations. For example, lecturer's gaze is combined with long utterances and controls large group behavior, but teacher's gaze during practicals is more mobile and more concerned with students' answers. It is also noted, that looking at during listening indicates agreement and attention. Looking at during speaking indicates interest in seeing the effect of the remark, and certainty. There are individual differences in looking styles that may be linked with individual differences in communication style. The type and amount of eye contact, gaze, gaze

direction is another area in which cultural differences occur. In many cultures students are expected to look directly at the teacher when speaking or being spoken to. In other cultures, eye contact is considered as invasion of privacy, an act of defiance, or demonstration of lack of trust. Functions of gaze are multiple, and there are different patterns of gaze in different cultures. But patterns of gaze in teaching are very much the same in different cultures, because the teacher must get feedback from the students, control their behavior, control understanding

The teachers should mind other cultural differences of students in class. Cultural differences are demonstrated in interpersonal distances. For example, northern European teachers places in south European classrooms may be perceived by the students as cool, distant and disappointing. South European teachers may cause discomfort in northern European students by standing uncommonly close to them and by making physical contact.

#### **Lecture 14. Interaction in Teaching**

- 1. Synchrony and Imitation in Interaction.***
- 2. Feedback as Mutual Behaviors in Teaching.***
- 3. Interaction Teaching Styles.***

##### ***1. Synchrony and Imitation in Interaction.***

Communication is a process in which people are seen as participants in complex systems of behavioral relationships instead of as isolated senders and receivers of isolated messages.

There is a communicational integrity between speaker and listener revealed in interactional synchrony. Interactional synchrony is a basic feature of behavioral organization and perception is simultaneously a basic feature in the establishment and maintenance of human interaction. The listener synchronizes his activities with the speech (to within at least 20 milliseconds), that is quite remarkable. People who are facing each other go through a series of exactly synchronized movements in the absence of speech, so the visual channel alone is sufficient in maintain interactional synchrony.

So both auditory and visual channels establish the necessary degree for interaction and so bring people together to unity. Differences in synchrony patterns relate to status, role, and interactional strategy, and changes in interactional synchrony communicate closeness and distance, sympathy and understanding, acceptance and rejection, agreement and disagreement. Interactional synchrony is the simultaneous sharing of changes in muscular activity between speaker and hearer. It constitutes an inter-individual coordination of much greater detail and complexity than we would expect from casual observation. By making this coordination visible, micro kinesic analyses provides a time microscope for human interaction; it permits a close examination of the rhythmic forces which link individuals in social activity.

In general, the more two interactants share movement and posture together, the greater is rapport between them. Such rapport contributes to a sense of belonging, acceptance and well-being.

However, what remains unknown is the student-perceived, teachers' non-verbal, two-way feedback interaction behaviors that facilitate students' higher learning outcomes such as meta cognition. This is important because teachers' quality interaction and instruction forms an intricate, complex web of interconnected experiences for students that define, shape and impact motivation towards learning. For competent class membership students had to learn the appropriate social rules and to synchronize their behaviors with the interactional context operating at the moment.

When engaged in a face-to-face interaction, people have a strong and automatic tendency to imitate one another. In the laboratory this can be revealed by interference effects on one's own action when observing the actions of others. In class imitation is demonstrated in the students' repeating the teacher's behavior, pronunciation, style features.

## ***2.Feedback as a Regulator of Mutual Behaviors in Teaching.***

Any situation of face-to-face interaction is organized by feedback that is a process of mutual response of speaker and listener. Such response is identified in all possible interactions regardless the number of listeners and participants in a group. Listeners

are active both verbally and kinesically. They engage in a wide range of visible nonverbal behaviors: shifts in posture, changes in orientation of the head and eyes, gesticulation in the hands and arms, and a variety of affective reactions involving the head and face. The most commonly identified kinesics form of listener's response is the head nod.

Feedback is also any response from a teacher in regard to a student's performance or behavior. It can be verbal, written or gestural. The purpose of feedback in a learning process is to improve a student's performance- definitely not put a damper on it. The ultimate goal of feedback is to provide students with an "I can do this" attitude. For such purposes a teacher may use a smile with an eye contact, facial expressions, some remarks. The teacher's encouragement is always stimulating and helpful for a pupil, but its forms and intensity depend on individual student's features, age, communicative situation.

Feedback in teaching is a mutual process, so the teacher has got it from the students too. Moreover, a teacher needs feedback to understand students' perception of lecture material, their emotions, interest, attitude to a teacher and the teaching contents and teaching situation. Students' kinesics feedback may be both visible and "invisible". The latter is presented by micro kinesics response that accompany any interactional behaviors regardless the number of participants and visible verbal and nonverbal listeners' behaviors. So micro kinesics response from the students is one of the main regulators of a lecture's verbal behavior. So, feedback cannot be a one-way direction process, it is just mutual and continuous one.

It is often written in pedagogical papers that a student is passive during lecture listening. This statement is quite a misunderstanding of teacher-student interaction process. It should be noted, that listening is a much more difficult process than speaking, because the students are engaged in the perceiving, the understanding, the remembering of lecture material. Moreover, students give nonverbal response that include micro kinesics behavior. So it should be agreed that students are not passive but active during lecture classes.

### ***3. Interaction Teaching Styles***

The Authority, or lecture style: The authority model is teacher-centered and frequently entails lengthy lecture sessions or one-way presentations. Students are expected to take notes or absorb information. Pros: this style is acceptable for certain higher-education disciplines and auditorium settings with large groups of students. The pure lecture style is most suitable for subjects like history, which necessitate memorization of key facts, dates, names, etc. Cons: it's a questionable model for teaching children because there is little or no interaction with the teacher. Plus it can get a little snooze-y. That's why it's a better approach for older, more mature students.

The Demonstrator, or coach style: the demonstrator retains the formal authority role by showing students what they need to know. The demonstrator is a lot like the lecturer, but their lessons include multimedia presentations, activities, and demonstrations. (Think: Math. Science. Music.) Pros: this style gives teachers opportunities to incorporate a variety of formats including lectures and multimedia presentations. Cons: although it's well-suited for teaching mathematics, music, physical education, or arts and crafts, it is difficult to accommodate students' individual needs in larger classrooms.

The Facilitator, or activity style: facilitators promote self-learning and help students develop critical thinking skills and retain knowledge that leads to self-actualization. Pros: this style trains students to ask questions and helps develop skills to find answers and solutions through exploration; it is ideal for teaching science and similar subjects. Cons: challenges teacher to interact with students and prompt them toward discovery rather than lecturing facts and testing knowledge through memorization. So it's a bit harder to measure success in tangible terms.

The Delegator, or group style: the delegator style is best suited for curricula that require lab activities, such as chemistry and biology, or subjects that warrant peer feedback, like debate and creative writing. Pros: guided discovery and inquiry-based learning place the teacher in an observer role that inspires students by working in tandem toward common goals. Cons: considered a modern style of teaching, it is sometimes criticized as eroding teacher authority. As a delegator, the teacher acts more as a consultant rather than the traditional authority figure.

The Hybrid, or blended style: hybrid, or blended style, follows an integrated approach to teaching that blends the teacher's personality and interests with students' needs and curriculum-appropriate methods. Pros: inclusive! And it enables teachers to tailor their styles to student needs and appropriate subject matter. Cons: hybrid style runs the risk of trying to be too many things to all students, prompting teachers to spread themselves too thin and dilute learning.

Selecting a style that addresses the needs of diverse students at different learning levels begins with a personal inventory—a self-evaluation—of the teacher's strengths and weaknesses. As they develop their teaching styles and integrate them with effective classroom management skills, teachers will learn what works best for their personalities and curriculum.

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## 2.2 Video- and Audio Materials

In teaching the discipline some illustrations are used both by the lecturer and the master students. The lecturer delivers material about the history of higher education, best universities in the English speaking world. So some pictures and short video segments are presented to master students in lectures 1 and 2. At the seminar classes master students prepare reports about higher education in the USA, about higher education in China. So the reporters use some illustrations depicting university buildings, educational surroundings, historical buildings as well as some schemas and tables.

## 3. Practical Section

### 3.1 Topics for Practical Classes

#### 1. History of Higher Education.

- Beginnings of higher education in Greece and Africa.
- Ancient beginnings of higher education in China.
- Periods of higher education development.
- Higher education in China nowadays.

#### 2. History and Structure of Higher Education in the USA.

- Beginnings of Higher education in the USA.
- Types of higher educational establishments in the USA.
- Structure of American HEIs, their governing and programs.
- Main universities in the USA; the Ivy League.

#### 3. Higher Education in China

- History of higher education in China.
- Types of HEIs in China.
- Structure of China higher education sector.
- Academic standards and quality of HE in China.

#### 4. Approaches to Learning and Instruction

- Teacher-centered and student-centered approaches to learning.
- Inquiry based learning.
- Prior knowledge in learning.
- Differentiated instruction.
- Low tech and high tech approaches to learning.

#### 4. Methods of Instruction

- Problem based teaching.
- Programmed instruction.

- Lecture method, its benefits.
- Teaching in small groups.
- Peer teaching, its limitations.

**5. Interactive Teaching Methods.**

- Method of training, its aims.
- Method of projects.
- Brainstorming, its arrangement.
- Method of peer feedback.

**6. Research Methods in Psychology of Higher Education.**

- Longitudinal and comparative research.
- Teaching experiment in a high school.
- Appliance of method of survey in a high school.
- Method of questionnaire.
- Method of observation.
- The biographical method

**7. Verbal and Nonverbal Behavior in a Teaching Process.**

- Differentiation of concepts of language and speech.
- Vocabulary of a high school lecturer.
- Differentiation of written and oral speech.
- Connected speech lecturer organization.
- Tempo, loudness, pauses, intonation in a lecturer verbal behavior.

**9. Methods and strategies of improving students' memory.**

- Concept of memory, memory and thinking.
- Types and kinds of memory.
- Strategies for improving students' memory.
- The PQ4R method for better learning and memorizing.

**10 Thinking: Development of Students' Critical Thinking.**

- Thinking, language and speech.
- Concept of a critical thinking.
- Skills of critical thinking.
- Methods of critical thinking development.

**11. Thinking: Development of Students' Conceptual and Creative Thinking.**

- Conceptual thinking development in teaching students.
- Concept of creative thinking.
- Stages of creative thinking.
- Methods of creative thinking development.

**12. Interaction and Teaching.**

- Concept of interaction; mutual response in interaction.
- Teacher-students verbal and nonverbal feedback.
- Gaze and gestures in lecturing.
- Spatial dimension in a teacher-student interaction.
- Cultural background of a teacher-student interaction

#### **4. Section for Academic Performance Evaluation**

##### **4.1 Credit Items**

1. Ancient foundations of higher education.
2. Periods of Chinese higher education development.
3. Types of universities in Great Britain.
4. Structure of HE sector in Great Britain.
5. Structure of HE sector in the USA.
6. The main universities in the USA.
7. HE in Belorussia: history and contemporary state.
8. History and the main ideas of the Bologna Process.
9. The main trends of HE development nowadays.
10. Characterize teacher-centered methods of teaching.
11. Compare teacher-centered and student-centered approaches to teaching.
12. Inquiry and problem solving methods of teaching.
13. Programed instruction, its benefits and drawbacks.
14. Methods of teaching in small groups.
15. Enumerate interactive methods of teaching and tell about their goals.
16. Enumerate methods of research in high school education and explain one of them.
17. Experimental method in psychology, types of experiment and their application in high school research.
18. Method of observation and its application in high school research.
19. Application of methods of survey and questionnaire in high school education.
20. Biographical methods of research of creative students.
21. Language and speech of a high school teacher.
22. Speech processes organization of university students.
23. Tempo, loudness, pauses and intonation organization of a lecturer speaking behavior.
24. Methods of students' memory development.

25. Conceptual thinking and its development in high school learning.
26. Creative thinking stages, its development in high school learning.
27. Teacher-student interaction in teaching, its cultural background.
28. Gaze and feedback in teacher-student interaction in high school teaching.
29. Types of gestures and specific of lecture's gesticulation.
30. Space dimension in teacher-student interaction in high school.

## **5. Auxiliary Section**

### **5.1 Syllabus**

#### **Part I. Pedagogy of Higher Education.**

##### **Lecture 1. History of Higher Education.**

Historical backgrounds of higher education in Ancient Greece. Origin of the notions "academy" and "museum". Emergence of higher education in China. Universities of the Middle East and Northern Africa. The first degree-granting university in the world. Subjects to learn in ancient universities. Ancient universities and religion. Higher education in Europe. The first European universities and their development. History of higher education in China. Periods of HEIs development in China.

##### **Lecture 2. Higher Education in Great Britain**

Foundation of the first universities in Great Britain. Development of British higher education in the Middle Ages. Universities and the church. Higher education in the 19th and the 20<sup>th</sup> centuries. Types of British universities. Differences in educational and social background in universities. Modern structure of the UK higher education sector. Academic standards in higher education. Quality assurance in higher education.

##### **Lecture 3. Development of Higher Education in Belarus.**

History of higher education in Belarus. The oldest HEIs in Belarus. The main HEIs in Belarus. State Educational Standards and Law of Education. Types of HEI in Belarus. Private and state higher education, their features. Entrance to HEI. Curricula and programs in the system of higher education. Maintaining the academic quality of HE. Scholarships, allowances and grants for students. Stages of higher education in Belarus. Post-graduate education. Structure of the main universities.

##### **Lecture 4. The Bologna Process: History and Contemporary State.**

Backgrounds of educational reform named the Bologna Process. The aims of the

educational reform. The main principles of the Bologna Process. Creation of the European Higher Education Area. Mobility of students and the staff. Levels of the Bologna reform organization. Curricular and programs in EHEA. Member countries of the Bologna Process. Advantages and disadvantages of the Bologna Process.

### **Lecture 5. Contemporary Global Trends in Higher Education.**

Expansion of higher education systems. Increasing in students' amount. Diversity of HEI system. Private – owned and state – owned HEI. Types of institutions and contents of education. Usage of new educational technologies. Internalization of higher education. Changes in teaching paradigms. Research in teaching-learning processes. Problem of quality assurance in HE.

### **Lecture 6. Teaching Methods and Forms in Higher Education.**

Teacher-centered and student-centered approach to learning. Inquiry-based learning and problem solving teaching. Discovery learning. Low tech and high tech approaches to learning and teaching. Programmed instruction, its origin and history. Lecture method, its benefits. Academic tutorials and their aims. Group discussion and its appliance in teaching. Case study as a special method to get practical skills. Brainstorming method for problem solving and decision making. Peer-teaching as a technology of student-centered learning, shortcomings of the technology.

### **Lecture 7. Interactive Teaching Methods in Higher Education.**

Application of interactive teaching methods in higher education. Method of training and its aims. Stages of a training procedure. Behavior modeling as a method of teaching interpersonal communication. Method of peer feedback as means of professional communicative and teaching abilities and skills. Method of projects and its benefits. Method of storytelling.

## **Part II. Psychology of Higher Education**

### **Lecture 8. Psychology as a Science**

Ancient philosophy backgrounds of psychology, Plato and Socrates. Foundation of scientific psychology knowledge in the 19<sup>th</sup> century. Differentiation of scientific and everyday psychological knowledge. Psychology as a science of consciousness, W. Wundt and W. James. Principles of behaviorism and its development. Psychological knowledge in Europe: Freud's and his psychoanalytic approach; gestalt psychology of M. Wertheimer and post war humanistic approach of C. Rogers and A.

Maslow. Cognitive psychology approach, its methods and development. Branches of modern psychology.

### **Lecture 9. Research Methods in Psychology of Higher Education**

Theoretical background and data gathering in a research. Method of observation, its relevance and application in a research in higher education. Forms of observation. Experiment in pedagogy and psychology of higher education. Forms of experiment. Method of survey, its importance for data gathering. Methods of questionnaire and interview, their application in higher education research. Case study method. The biographical method, its history and application. Psychological tests.

### **Lecture 10. Memory and Learning**

Memory as a cognitive process. Correlation of memory and thought. Memory and conceptual thinking. Explicit and implicit memory in learning. Short-term, long-term and working memory in learning. Procedural, semantic and episodic memory in learning. Acquisition of information in learning. Retrieval of stored information in learning. Problems with memory of the students. Methods and approaches for students memory improvement. The PQ4R method for students studying and learning. Strategies for students learning and memorizing.

### **Lecture 11. Concepts of Thought and Students Thinking Development**

Characteristics of thought. Relations of language, speech and thinking. Theories of thinking. Conceptual thinking as a goal of higher education instruction. Development of critical thinking of students. Concept of creativity and phases of creative thinking: preparation, incubation, illumination, verification. Stimulation of a creative thinking. Productive and reproductive thinking. Lateral and vertical thinking (de Bono). Characteristics of problem solving and obstacles to it. Theories of problem solving. Characteristics of a genius's thinking.

### **Lecture 12. Methods of Creative and Critical Thinking Development**

Notions of creative and critical thinking. Phases of creative thinking and insight. Advantages of creative thinking skills and abilities. Creative thinking as compared with lateral and productive thinking. Personality features and creative thinking. Age frames of creative thinking development. Methods and approaches to creative thinking development. Critical thinking of students. Characteristic features of critical thinking process. Advantages of critical thinking skills and abilities development. Critical thinking and self-regulation. Intellectual and personal backgrounds for critical thinking development. Method of students critical thinking development.

### **Lecture 13. Verbal and Nonverbal Behavior of a Lecturer**

Concepts of language and speech. Hypothesis of linguistic relativity (B. Whorf). Speech processes: speaking, listening, reading and writing. Students' and lecturers' active and potential vocabulary assessment. Characteristics of a speaking process of a lecturer. Lecturer's speaking tempo and loudness differentiation. Role of pauses in students' attention and activities guidance. Types of intonation of a lecturer. Emotional, intellectual and volitional influence of intonation. Gestures in communicative behavior, their specific appliance in teacher-student interaction.

### **Lecture 14. Interaction in Teaching.**

Interactional background of a teaching process. Interactional synchrony in teacher and learner behavior. Verbal and nonverbal behavior of a teacher. Feedback as regulator of teacher and learner behavioral response. Situational background of teacher's behavior in class. Behavioral contact in interaction and its cultural background. Patterns of gaze in teacher-student interaction. Spatial dimension of teacher-student interaction. Space arrangements in a class and in a lecture-room.

## 5.2 Curriculum Schema

### Учебно-методическая карта

Sections and Topics	Количество аудиторных часов			
	всего	лекции	сем я	Форма контроль
<b>Section 1. Pedagogy of Higher Education</b>				
Topic 1. History of Higher Education.	2	2		Inquiry
Topic 2. History and Contemporary State of HE in Great Britain, the USA and China.	2	2		Essay
Topic 3 Development of Higher Education in Belarus	4		4	Reports
Topic 4. The Bologna Process: History and Contemporary State.	4		4	Reports
Topic 5. Global Trends in Higher Education Development.	2	2		Inquiry



Topic 6. Teaching Methods and Forms in Higher Education.	2	2		Inquiry
Topic 7. Interactive Teaching Methods in Higher Education.	6	4	2	Essay
				Inquiry
<b>Section 2. Psychology of Higher Education</b>				
Topic 8. Psychology as a Science	4	4		Inquiry
Topic 9. Research Methods in Psychology of Higher Education.	6	4	2	Inquiry
Topic 10. Memory and Learning	4	2	2	Inquiry
Topic 11. Concept of Thought and Students Thinking Development.	6	4	2	Essay

Topic 13. Methods of Creative and Critical Thinking Development	4	2	2	Essay
Topic 13. Verbal and Nonverbal Behavior of a Lecturer	2		2	Survey
Topic 14. Interaction in Teaching	2		2	Survey
Всего:	56	32	24	Зачёт

## 5.3 Literature

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