

The use of transferable skills in education and its impact on the economy

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Abstract. The purpose of the study is to determine and analyze the root cause of the problem, which prevents students from developing and implementing transfer skills. In the research, using secondary data, public documents and content analysis methods, current changes in the education system are studied and analyzed. In addition, in order to discuss the current situation in the Georgian educational market and to study the factors of the internationalization process in Georgia, a PESTEL analysis was conducted, within the framework of which the political, economic, social, technological, ecological and legitimate factors determining the attractiveness of Georgia for foreign students were identified. The topic is relevant because the rhythm of modern life depends on transfer skills. And the current events encourage and make inevitable the emergence of young people who can use their knowledge independently in the economy and culture. By teaching effective transferable skills, it is possible not only to correct an un-sustainable situation, but also to achieve strong and stable demand, productivity and economic growth. At the end of the paper, the main conclusions and recommendations for higher educational institutions and students are presented. Taking into account the received research results will make a positive contribution to the development of an effective state policy of university education. In the post-pandemic period, this is directly related to the acceleration of innovative processes in the country and the rational accumulation of economic wealth.


Keywords: skills, transferable skills, knowledge capital, human capital, teacher quality, Sustainable Development Goals, job mobility

1. Introduction

In the XXI century, humanity has moved to a new stage of development. Science, economists, politicians, teachers talk more and more often about the information era, which demanded the development of new skills from a person. Based on this, the youth of the 21st century must have the basic skills of thinking and research, the ability to work on the Internet.

According to the theory of Bloom [7], the following levels of thinking are distinguished: knowledge, understanding, application, analysis, synthesis and evaluation. These levels of thinking form steps, where each subsequent level becomes more complex and includes one or more previous levels. Knowledge, understanding, and application are considered in the lower level of thinking, while analysis, synthesis, and evaluation are considered in the upper level of thinking. According to Bloom [7], application is considered as a lower-level skill of thinking, and in general, it implies the practical use of previously acquired knowledge, namely: the use of knowledge in different situations (contexts); according to the model (according to the learned

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rule) to perform the task, work; implementation of the procedure; to determine the scope of legality.

It is important to use knowledge in different situations (transfer). In this regard, the opinions of various researchers and organizations presented in the following works are noteworthy: Abuselidze [2], Bloom [7], Broecke [8], Buskhrikidze [9], Cheary [11], Crossley and Watson [15], Editorial Team [16], Gijsselaers et al. [18], Hanushek [19, 20], Hoidn and Kärkkäinen [21], Jones [23], Killen [24], Misiuk et al. [32], OECD [33], Perkins and Zimmerman [37], Ratiani [41], Rutkowski [42], Sazonov et al. [43], Uznadze [51], Zoidze and Veshapidze [53].

We often use transferable skills, consciously or unconsciously. We use it wherever we need any type of knowledge, skill and strategy. Transfer occurs when we connect one area of knowledge to another. If it were not for the ability to transfer, humanity would not be able to progress, improve the living environment, because it would need to acquire new knowledge in any situation.

Thus, transfer is the foundation of education. We do not teach students to do homework, present research projects, read various authoritative scientific-cognitive magazines periodically to understand the news happening in the world, read business documents for successful activities, read literature for pleasure or to expand academic horizons – we simply teach the activities that he will use in any situation, so we don't waste time teaching for every individual case.

For example, we teach students the principles of economics, welfare economics, institutional economics, economic policy, econometrics, tax affairs, budget planning, risk management in economics, etc., not in order to continue doing exercises in the future, solving examples, but in order to be able to understand taxes, family budget plan wisely, go shopping, take up economics or any other profession for which mathematical foundations are important; We teach social sciences not to complete tests and crosswords, but to be able to think, perceive the world from different angles. Education cannot fulfill its purpose if transferable skills are not taught to students.

In the work of Perkins and Zimmerman [37], we come across important information about transferable skills. Bypassing this topic, the process of educational learning is unimaginable. It is a kind of base for student education.

According to the theory of Uznadze [51], thinking is characterized by the ability to transfer. If the student solves one problem, he no longer has any difficulty in solving a similar problem: "thinking transfers the method of a problem solved once to a similar new problem".

We use transfer quite often wherever we need any type of knowledge, skill and strategy. Transfer occurs when we connect one area of knowledge to another. Progress is made through transference. Such an existential issue as, for example, the improvement of the living environment, is carried out by means of transfer, because in order to arrange the desired environment, it is necessary to acquire new knowledge, and the acquired knowledge is used for the intended purpose.

Today, an important puzzle for education specialists is the circumstance under which the transfer takes place or does not take place. The main feature of the principle of subject knowledge transfer is that students understand the importance of theoretical knowledge in human life, in their practical activities, as well as being able to use the acquired knowledge to solve the practical tasks that arise before them. Such skills are the most important criterion of the quality of students' knowledge. Therefore, it is important to establish the connection "knowledge –

life”: from life to knowledge, knowledge to life.

The most important issue is the economic effect of transferable skills, which is already discussed a lot in the economics of modern education [3, 4, 6, 8, 12, 19, 28, 30, 31, 34, 36, 42, 46]. On the basis of international studies, it is empirically proven that the strengthening of skills in the economically active workforce has a positive effect not only on the growth of the country’s economy (macro level), but also on the increase in wages of employees (micro level) and on the reduction of inequality caused by the wage gap in the labor market (if the improvement of skills is proportional to the workforce and available not only to elite groups) [10, 17, 20, 22, 29, 35, 44, 45, 49, 50].

According to international experience, there is a close correlation between the use of transferable skills by employees at the workplace and their remuneration: the remuneration of employees who use general skills more often at work is much higher, regardless of the difference in profession and level of education [33].

When discussing the relationship between transferable skills and wages, the supply-demand balance component of the labor market must also be considered. In particular, when the demand for some skills is high, but the adequate labor force is scarce, the individual’s economic benefits increase at the expense of lower competition. Consequently, the wage gap and wage inequality on the macro level are also increasing. And vice versa, when the number of labor force equipped with relevant skills matches or exceeds market requirements, competition increases, and individual economic benefits and wage inequality decrease [8].

A developing student’s mind begins to create an abstract world with general concepts and perceive reality in a new way [9]. The feeling of complicity allows one to understand the cause-and-effect chain of connection between man and the world. Students perceive their role in the world more realistically. The process of searching for evidence and truth builds in them many skills that they use later in life. And life allows them to evaluate and test the value of ideas. Moreover, every problem they solve becomes a rule that will help them solve other problems in the future. All this is good, but how do we teach transfer? We will try to answer this question in more detail below.

2. Methods

In recent years, a lot of research has been conducted regarding important topics in the education system, as well as other issues surrounding it.

In the research, using secondary data, public documents and content analysis methods, current changes in the education system are studied and analyzed. In order to discuss the current situation in the educational market of Georgia, we got acquainted with the research works, scientific papers and statistical data carried out in recent years in relation to the quality of education, accessibility, internationalization processes, as well as the demands of the labor market.

In addition, in order to study the factors of the internationalization process in Georgia, we conducted a PESTEL analysis, within the framework of which the political, economic, social, technological, ecological and legitimate factors determining the attractiveness of Georgia for foreign students were revealed.

As a whole, our research revealed – the transferable competencies of the employed population, the components of which represent an alternative measure of human capital in the econometrics of modern education.

3. Results and discussion

3.1. Varieties of transferable skills and problem-based learning

In the 21st century education, in the university space, the most important component that a student should have is the use of existing knowledge in different directions, i.e. transfer. The development of the ability to transfer implies a constant search for a solution in books or the Internet, in the advices read or heard. That is why the development of this ability among students is one of the priority directions.

Transferability is independent thinking, the basis of which is the use of existing knowledge. A student has the ability to transfer – this means:

- To demonstrate the ability of logical thinking and reasoning;
- To have the ability to see and understand alternatives;
- Have a need for argument and discussion;
- Formed, logical thinking-based views, etc.

There are competencies that are crucial in today's world, so that a person can realize himself and establish a place in society. Mastery of these competencies starts from educational institutions. The university should promote the development of practical or symbolic thinking, development of learning habits (teaching how the student should learn better), development of different levels of thinking, innovative and transferable skills. The student should be able to transfer and use the acquired knowledge and experience in different content contexts. It is necessary to establish connections between educational courses in the educational process.

An effective teaching-learning process provides the student with 3 types of knowledge:

- 1) static or declarative knowledge – when the student knows rules, laws, definitions of concepts, formulas;
- 2) dynamic or procedural knowledge – which allows the student to realize knowledge;
- 3) functional or transfer knowledge – which allows the student to adequately use his knowledge in different contexts, transfer knowledge.

Transfer means using what was learned in one situation in a different situation. Transfer is a fundamental skill in teaching and thinking. It accompanies the acquisition of knowledge, the understanding of strategies and the expression of moods.

The transfer mechanism is different. There is a Close and Far Transfer. The boundary between them is not so clear, and the distance mainly depends on how different contexts we use our knowledge or skills. Close transfer, roughly speaking, occurs when we learn new knowledge in a similar environment. For example, driving a car is useful. Getting behind the wheel of a different car is a transfer of driving skills, but still slightly different from a familiar situation. We can also consider subject skills that are acquired in the student's arsenal within the defined subject

and which he uses as needed, as Close Transfer. In general, university subject assignments are similar and therefore transferable.

Far Transfer is used in a situation very different from the context. For example, if you are good at chess, the same strategies you need for a chess game can be used in business. A basic chess principle, the control center, may come in handy, for example, when investing in industry. In addition, in economic activities, as in chess, you need to calculate the expected result in advance and choose the best move that will bring you profit in the shortest time or postpone loss.

In general, chess and economics are far from each other, so this is a Far Transfer. In relation to teaching and learning, this concept implies the application of what was learned in an educational institution in a non-academic environment, for example, knowledge of mathematics can be useful for calculating different alternatives when planning investments.

Psychologists also distinguish between positive and negative transference. A positive transfer is called a transfer that has a positive result or gives you the opportunity to transfer what you have learned from previous experience to another context. For example, if you have already had to work with data once and know how to process it, it can be safely said that working with data of other content will be much easier for you the second time. This can be considered a positive transfer. However, this is not always the case. For example, visitors to the UK who are used to left-hand drive may find it difficult to switch to right-hand drive and drive on the left-hand side of the road when renting a car. Thus, previously learned solid models are sometimes dangerous.

Simple and complex types of transfer are also distinguished. A simple transfer occurs when little effort is required to make the transfer. For example, if the students learned to observe the weather, and at the same time the teacher showed them where to look for a short and long-term weather forecast, planning a day for an excursion so that the weather does not interfere – this can be considered a simple transfer, and a difficult transfer occurs when performing more complex tasks, when the results are multifaceted, Multiple transfers are required.

Also, it can be distinguished – automatic (inadvertent) and deliberate transfer. In the first case, a person spontaneously responds to a situation that is very similar to the environment in which he acquired the necessary knowledge. For example, we use the ability to read without thinking in any environment. Thoughtful transfer can happen, for example, when a lecturer learns to manage an audience in training and then transfers this knowledge into practice. Seeing the premise of conflict in the audience, he asks himself what he remembers from the theory about what should be done in such a situation, or what colleagues in training said about it, what examples they gave from their own experience. This is already a considered transfer.

Although the above examples are not familiar to us, they may seem simple and even too obvious, this is only a superficial assessment. In fact, research shows that the ability to transfer is neither innate nor developed by itself. Therefore, the lecturer should help the students to acquire this skill in order to be able to use the knowledge obtained at the university in a completely different situation that has not happened yet [41]. In this case, the goal of lecturers is to transform theoretical knowledge into dynamic and transferable knowledge, not only to transfer knowledge and various skills to students, but also to interest students in the ideas that are the basis of the knowledge they have received. This will make the teaching process more attractive and interesting for them.

The transfer does not happen by itself. Special planning of teaching is required. In order for

the transfer to take place, we must take into account the following conditions:

1. Knowledge, which is transferred, must contain a cause-and-effect relationship.
2. In the teaching process, attention should be focused on the fact that the acquired experience can be used by the student in different situations.
3. During the learning process, the student should discover the basic principles of solving the problem.

Transfer can be achieved through problem-based learning. By working on a problem, students gain knowledge and skills that they can use when solving another problem. Each solved problem becomes a rule that will help them solve other problems in the future (figure 1).

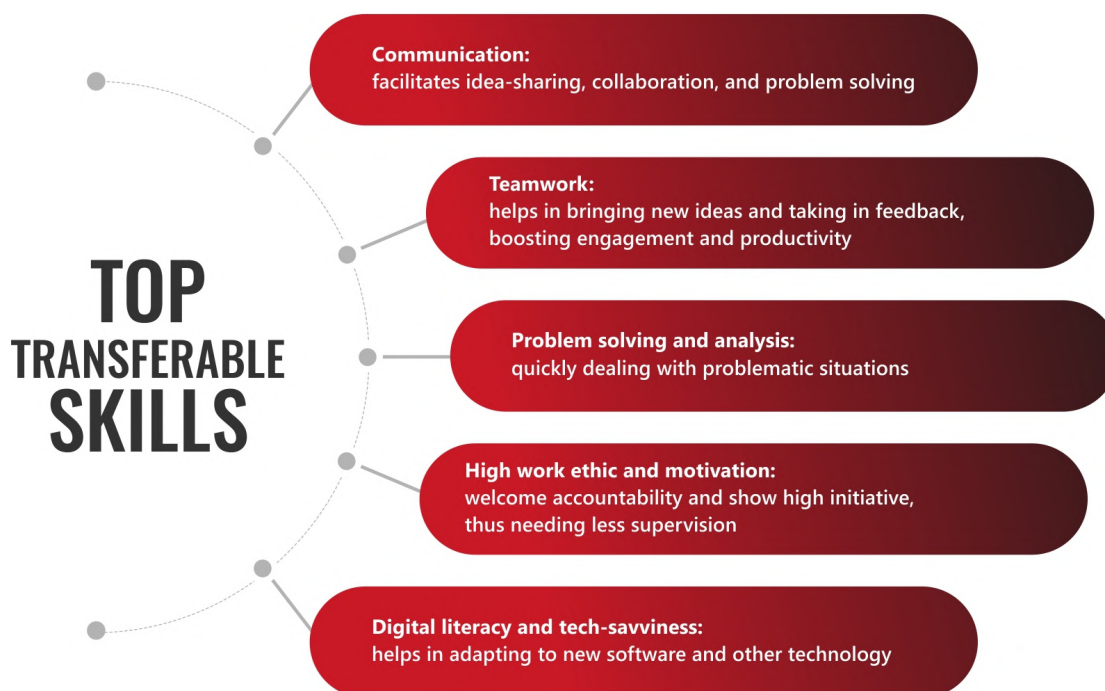


Figure 1: Top transferable skills [16].

Being in a family or university environment, when a student learns how to deal with people, how to manage himself, not to follow irritants, he develops the ability to manage his emotions. Subsequently, the transfer of these skills manifests itself in different situations, environments and relationships with people.

Here we can mention some examples of transferable skills in practical reality:

- Lyric and, in general, fiction often resort to comparison and allegory, which is a kind of transference. A poet is more creative, the more virtuosically he manages to do it. But it is not necessary to be a poet or a writer for transfer;
- A person learns to drive a light car and one fine day, while moving from one apartment to another, he discovers that he can drive a truck borrowed from an acquaintance just as well. Thus, the ability to drive a car can be freely transferred to driving a truck;

- When a person learns a foreign language, for example, French, then he decides to learn Spanish and notices that he understands some words even without learning. Language learning strategies are also easy to use;
- The transfer is also when you grow up with your siblings and learn how to hold back and not follow the irritants. In the future, the ability to manage your emotions will be useful in the workplace.

3.2. Emphasis on the integration of theoretical and practical learning

Education is the fundamental basis for the development of a person and a country. Today, the formation of a quality and accessible education system is one of the important challenges for creating a multifaceted perspective of our country.

The inclusion of the Georgian education system in the European educational space has dramatically changed its development orientations. Being a member of the European family means that the processes in educational institutions must comply with the standards and requirements set by the education system and leading universities.

The reform of the education system required a transition from lecturer-oriented teaching to a student-oriented learning process, the implementation of which requires a number of irreversible procedures, namely:

- Content, qualitative and structural improvement of curricula;
- Transformation of traditional teaching methodology and adaptation to new needs;
- Retraining of personnel and strengthening of general transferable skills;
- Freedom of study and research;
- Internationalization of programs.

During the last decades, the main emphasis in the European higher education space is on the integration of theoretical and practical learning [27], which implies the development of educational programs that will be in line with the requirements of the modern world and will be able to respond to the challenges of the economic market. These requirements go beyond only sectorial knowledge and require human capital with various transferable competencies [5, 11, 13, 14, 32, 40, 47, 48].

The development of basic skills should contribute to the development of key competences and attitudes such as: creativity, entrepreneurship and sense of initiative [25], digital competences [38], competence in foreign languages [26], critical thinking [39], electronic literacy (e-literacy) and multimedia literacy. In turn, the aforementioned competencies build human capital that has the capacity to respond to the demands of the rapidly evolving digital and green economy and to technological, climatic and demographic changes [1].

Also, we should take into account the fact that a higher education diploma is not a prerequisite (guarantee) that an individual possesses the necessary transferable skills for the modern labor market, which will help him find employment. This factor is the cause of long-term unemployment among the population with higher education in Georgia, especially among the young workforce [42].

On the other hand, the lack of relevant competencies in the workforce has the most negative impact on the innovative sector, which is already represented by a small share in the national labor market, and the lack of adequate human resources significantly hinders its development.

Therefore, a real solution to the problem is possible in a longer term and implies, on the one hand, improving the quality of the national education system and adapting it to the demands of the modern market, and on the other hand, investing resources to expand the traditional labor market (figure 2).

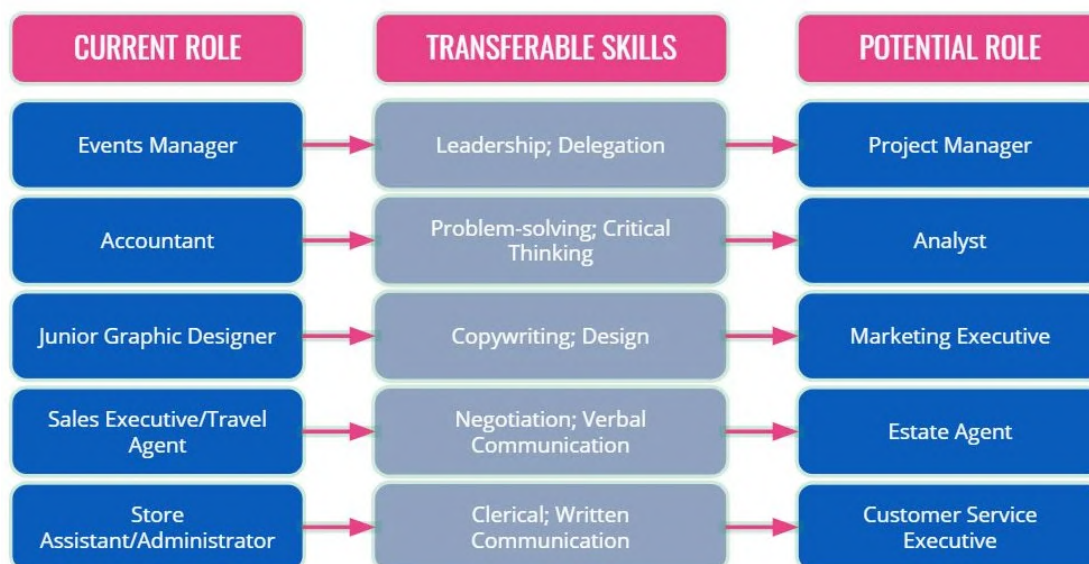


Figure 2: Current Role – Transferable Skills – Potential Role [11].

In particular, the creation of highly productive and modern work directions, where the workforce with adequate competencies will be able to realize their potential (as well as invested material and non-material resources) [42].

In the process of quality management, the emotional and cognitive involvement of students exceeds the component of behavioral involvement. In order to create a relevant, modern and up-to-date environment for student engagement in a higher educational institution, it is important to consider the following recommendations, in particular, it is necessary to properly understand and implement the constituent parts of the management process.

The management process of a higher educational institution should be based on proper planning, organization, monitoring, common goals of the university and students, skills, experience and their joint group work. In addition, in the process of organizational management, it is important to consider human relations; therefore, in order to implement common tasks, harmonious cooperation and mutual relations should be established between the university's administrative and academic staff and students, which in itself will contribute to the increase in the quality of student involvement in the assurance processes.

3.3. Internationalization processes in Georgia and its role in the development of transferable skills: PESTEL analysis

Currently, the higher education system of Georgia is open not only to the Georgian, but also to the international community. In the goals of the strategy of education and science of Georgia, the internationalization of higher education is given a priority place in the sustainable development of the country, for which a number of measures are implemented, aimed at students, academic and administrative staff to get international experience.

In cooperation with leading foreign universities, higher educational universities of Georgia implement joint degree-granting bachelor's, master's and doctoral educational programs. The internationalization promotion program/platform "Study in Georgia" was created, which aims to promote the development of English-language programs, the development of student-oriented infrastructure, and the attraction of foreign students to Georgia.

Georgia is actively involved in the EU program ERASMUS+. Obviously, all these activities contribute to the social mobility of students and academic staff and create conditions for self-realization. However, it should be noted that the statistics of attracting foreign students to Georgia and the mobility of students from the country show us that it is necessary to find additional resources and new initiatives to ensure the internationalization of higher education, the attraction of foreign students and the development of the country as a regional educational center [23].

It is mentioned in the Science and Education Strategy of Georgia that one of the factors contributing to the internationalization of education is the international cooperation of Georgian educational universities with the leading universities of Europe and America, for which all the institutions in the educational system need to show private initiatives in the direction of improving the conditions of mutual cooperation with the mentioned countries and raising awareness and interest in the educational environment of Georgia [52, 53].

Internationalization promotes the transferable use of knowledge acquired abroad when returning back [21]. Therefore, in order to study the factors of the internationalization process in Georgia, we conducted a PESTEL analysis, within the framework of which the political, economic, social, technological, ecological and legitimate factors determining the attractiveness of Georgia for foreign students were identified (table 1).

Internationalization at the university level is considered as an investment in the knowledge economy, an increase in the employment opportunities of students and academic staff at the national and international levels, support of the country's foreign policy, a powerful tool for the full integration of an individual into the global information society [18]. At the same time, the process of internationalization plays an important role in the institutional growth of the university, in improving the quality of research and teaching, and in increasing financial sustainability [2, 43].

In this regard, our learning environment will be attractive to both local and international students and academic staff in terms of integrating teaching and research [24]. Our relationship with strategic partnerships aims to jointly improve the management of processes, achieve high teaching results and engage in international research projects [15].

We consider it important to increase the share of practice in the educational component, increase the availability of exchange programs, and improve foreign language teaching in order

Table 1

Factors of internationalization process in Georgia: PESTEL analysis.

P-olitical	E-conomic	S-ocial
<ul style="list-style-type: none"> • Recognition of the priority of education by the state; • Internationalization strategy of the Ministry of Education and Science; • State support for social mobility of students and academic staff; • State approach to attracting foreign students to the country; • Association agreement with the European Union and European integration policy; • International image of the country. 	<ul style="list-style-type: none"> • Availability of educational programs; • Increased investment in education; • Funding opportunities for education; • Low living / food prices; • Employment opportunities for non-resident students; • Availability of credit products. 	<ul style="list-style-type: none"> • Surmountable language barrier; • Public self-awareness; • Emphasis on safety; • Lifestyle; • Multi-cultural and multi-national environment; • Religious tolerance; • Attitude towards ethnic groups and minorities; • Social classes.
T-echnological	E-nvironmental	L-egal
<ul style="list-style-type: none"> • State policy of internetization; • Developing technological infrastructure of the country; • Availability of integration into the global information space; • Information and communication channels; • Cyber security systems; • The practice of introducing and using modern technologies in the field of services. 	<ul style="list-style-type: none"> • Favorable stable climatic conditions; • Growing trends in environmental protection; • Diverse natural resources; • Access to eco-products; • Natural water; • Natural food; • Growing trend of eco- and medical tourism; • Natural resorts. 	<ul style="list-style-type: none"> • Law of Education; • Anti-discrimination law; • Protection of consumer rights; • Employment Law; • Data protection; • Visa regulations.

to accelerate the processes of internationalization with such an integrated approach.

4. Conclusions

Transferable skills are necessary to better prepare the student for his future role in society, which is expressed in a better opportunity to become a successful citizen and be employed in the labor market.

Based on our analysis, we have developed several options for possible interventions:

- When developing thematic plans and lectures, lecturers should take into account what can be transferred, when and how – lecturers should create an effective learning-teaching

process for students, which will allow students to adequately use their knowledge in different contexts and carry out knowledge transfer.

- Out-of-door lectures – implies conducting lectures and cognitive meetings in private and state structures. At this time, the environment is used as a source of knowledge. Students get used to practice the knowledge gained at the university. The examples given in the textbooks of the university courses are complemented by examples taken from the practical environment. Students are given the opportunity to draw on their own experience. They will find themselves in an informal environment, they will be more motivated, they will be more likely to see the practical application of the material they have learned, and they will develop the ability to collaborate.
- Differentiated approach – at this time, students experience a “home” atmosphere, develop the ability to work with a sense of responsibility on tasks, cooperation and discussion skills, each student is given the opportunity to achieve the highest result. The goal of differentiated teaching is that each student receives the task that suits him and the help he needs from the lecturer. The simplest and easiest way to differentiate is activity – a wide variety of tasks both in terms of content and form.
- Integrated project-lectures – lectures planned and conducted according to two or more educational courses united around the same, related or penetrating topic. A lecturer’s obligation is not limited to teaching his own course. Modern requirements for higher education show lecturers even more far-reaching goals and encourage them to use integration correctly so that students learn to connect one topic with another, one study course with another. This helps to consolidate knowledge and also transfer the acquired knowledge and skills from one field to another – “transfer”.
- Students should use the environment around them as a source of knowledge, relate the studied material to the socio-economic development perspectives of the village, city and country.

Deliberate practice is crucial in teaching focused on the acquisition of transferable knowledge, during which the student is highly motivated to learn and not just to complete the task.

In general, transfer occurs when we relate one area of knowledge to another. If it were not for the ability to transfer, humanity would not be able to progress, improve the living environment, because it would need to acquire new knowledge in any situation.

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