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# **PART I: ACTUAL ISSUES IN MODERN PEDAGOGY**

## **TEACHER AND STUDENT VIEWS ON LECTURE AS A FORM OF TERTIARY EDUCATION (CASE OF GEORGIA)**

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***Abstract:** The article discusses the efficiency of a lecture in general and the passive and active lecture in particular. A questionnaire survey studied teacher and student views on the issue. 80 lecturers and 36 students participated electronically. A conclusion is made that, although teachers' and students' views differ significantly, all agree that lectures should be / become more interactive.*

***Keywords:** higher education, lecture, interactive lecture, traditional lecture*

### **INTRODUCTION**

Lectures have been part of university education as long as tertiary education has been in use. Strange as the question sounds, as lecture is the most widely spread form of higher education process and all teachers and students believe they know what it is, nowadays, with the interactive and student-centered teaching, the concept definitely needs to be redefined, and its new understanding needs to be brought to lecturers' minds.

Traditionally, the word lecture, according to Online Etymology Dictionary (from Old French, 14-15<sup>th</sup> century, meaning reading, in its turn, from Latin, meaning learning from books), meant a text read by the teacher from the chair to the students. It is not by chance, that, contrary to English, where we say "to deliver/conduct/hold a lecture" in many languages the expression is "to read a lecture". Of course, it is a long time that lectures are normally not "read", but told, however, the direct instruction (delivery of information) and one-sided communication (teacher speaking and students listening) is still the widely used way of lecturing. More than that "lecturing on somebody" is used as a derogatory phrase to stand for boring, too didactic and usually authoritarian way of communication of seniors with juniors.

Clark (2008, p. 39) describes a traditional lecture as the professor talking "at the students, while they take notes without thinking". Today more than that with the technological advances, students even do not take notes, but, instead, take photos of lecturer slides or audio-record the lecture. Although criticized a lot, a lecture remains, side by side with seminars and practical/laboratory work, one of the basic forms of face-to-face as well as electronic teaching. The goal of this research is to see whether it is lecture by itself an inappropriate form of tertiary education or it is a traditional, passive lecture which is such.

## MATERIALS

Many researchers (Armbruster et al, 2009; Auman, 2011; Esmer et al, 2016; Gauci, Dantas, Williams & Kemm, 2009) have found lectures as less effective for knowledge and skill formation than other methods/forms of teaching/learning, such as question-answer, group work, individual work, discussion, case study, project, simulation, etc. They name the following disadvantages of lecturing: the difficulty of keeping students' attention for a long time, lack of students' motivation during the lecture, their passivity, lack of at least mental involvement, too much information which makes it difficult to memorize it, no student or teacher feedback, boredom of both students and lecturers, etc. According to Braxton, Jones, Hirschy & Hartley (2008), the majority of college and university professors still use passive lectures as the major teaching strategy. On the other hand, according to other researchers (Armbruster et al, 2009; Barnett, 2006; Burgan, 2006; Silver & Perini, 2010), an active lecture may be very effective. Compared to individual work, a lecture which takes into consideration the students' background knowledge, provides a concise, on the one hand, and minimized to the syllabus requirements level, on the other hand, information. Compared with learning from textbook, it may include the freshest information from the field. An expert lecturer can tailor it to the interests and knowledge of his/her students. For auditory (and simply lazy-to-read) learners, lecture is a more comfortable way to get acquainted with the information than reading. For visual learners there are effective slides that help perceive the auditory information. Teacher is normally more knowledgeable on the topic, so students can learn more from him/her at a lecture than from each other during seminar discussions. Lecturer usually touches the issues that will be in the exam in his / her lectures, and even intrinsically motivated students care about passing the course. Listening to a good lecture may substitute reading several sources. A lecture can be delivered to a larger number of students than other formats of tertiary education.

Taking into consideration its advantages, lecture needn't be neglected in student-centered education, but should be transformed, in order to overcome its drawbacks, and to link it to contemporary educational requirements. The ways to turn a lecture into an interactive and efficient are suggested by many researchers (Clark, 2008; Downs & Wilson, 2015; Gan & Balakrishnan, 2016; Gregory, 2013; Silver & Perini, 2010; Tait et al, 2015) by:

- Using pre-questioning to find out students' background knowledge (including the materials that have recently been covered), to link the current lecture with the previous ones.
- Providing course notes and compulsory literature beforehand, making teacher slides available for students, so that students can become more informed, and thus, more competent listeners. It will also free students from mechanically making detailed notes and enable them to make just short notes.
- Enumerating the issues involved, to make it easier to follow the lecture.
- Even if/when using Power Point presentations, let deviations and improvisations happen.

- After 15-20 minutes of lecturing asking students to sum up what has been said; asking students a couple of brief questions, to find out their comprehension.
- To use humor, to motivate, to less the contents less "dry", to let students switch over their attention for a short while. It is especially important when/if students are obviously tired and cannot follow.
- Letting students ask short questions, give examples, make short comments, express opinions. It is essential, however, to ask them be brief.
- Although a lecture is not a seminar or practical work, one or two sessions of 3-5 minute pair/group work (e.g. as brainstorming) will live the class and involve students.
- Using short tests, especially with the application of technologies installed in their mobile phones.
- Summing up in the end of the lecture, done by students (lecturer serving as a DJ, giving cues, when needed).

## **METHODS**

A quantitative study was held. Two analogous questionnaires were made up for this purpose, one for teachers, and the other for students. 9 statements had to be assessed by the respondents in Likert scale (1 = completely disagree, 2 = more disagree than agree, 3 = neither agree, not disagree, 4 = more agree than disagree, and 5 = completely agree). To avoid leading statements, some statements, some of them were positive (e.g. the majority of my lecturers hold interesting, useful and inspiring lectures), while others were negative (I or students do not benefit from activities in the process of lecture). In the first case "good" results are 4 and 5, and mean above 3.5, in the second case 1 and 2 mean below 3.5. Two "twin" items (#1 = #4; #2 is opposite to #6) were included to provide the reliability of results (the results of those respondents who gave opposite answers to the items with the same meaning were discarded as unreliable). Before applying the questionnaires, they were piloted with 5 teachers and 10 students, and the formulations were made more exact, some items were omitted. The questionnaires in [www.surveymonkey.com](http://www.surveymonkey.com) were placed on the social media for two months, 83 teachers and 41 students from Georgia initially volunteered to participate. After dropping the unreliable results, 80 teachers' and 36 students' answers were analyzed. Unfortunately, even the number of students who volunteered to participate in the survey reveals that they view the issue as not their business. The results are presented in *Tables 1 and 2*.

## **RESULTS AND DISCUSSION**

Teachers' and students' views on the questions differ tangibly. It might have two explanations: trivial laziness and lack of competence to study autonomously. But, of course, to make reliable conclusions, further research is needed. While 72.5% of the lecturers believe that students gain more knowledge from pair and group work, only 41.67% of the students think so. While 50% of the lecturers think that students are often bored during the lecture, but only 16.67% think so. While 27.5% of the lecturers think that students prefer to study from books, while 0% of the students have chosen the answers "more agree than disagree" or "completely agree" to the issue.

**Table1****Students' questionnaire results**

question # / points	1	2	3	4	5	mean
1. I gain more knowledge from individual/ pair/group work than from a lecture	0	41.67%	16.67%	16.67%	25%	3.35
2. I feel bored during most of lectures	16.67%	50%	16.67%	16.67%	0%	2.83
3. I prefer to study by myself from books than from lectures	41.67%	33.33%	25.00%	0	0	1.83
4. I prefer to study from seminars with various activities than from lectures	0	16.67%	0	50%	33.33%	4.00
5. A typical lecture in my experience is the teacher talking all the time, the students passively attending	50%	8.33%	8.33%	25.00%	8.33%	2.33
6. The majority of my lecturers hold interesting, useful and inspiring lectures	0	0	16.67%	33.33%	50.00%	4.33
7. A lecture is enjoyable and beneficial, if it includes question / answer, feedback, summing up, tests and some activities	0	8.33%	0	16.67%	75.00%	4.50
8. I usually cannot memorize large part of the material presented during the lecture	8.33%	58.33%	8.33%	8.33%	16.67%	2.67
9. I don't benefit from activities in the process of lecture	41.67%	41.67%	8.33%	8.33%	0	1.83
10. I cannot imagine educational process at university without lectures, whatever their quality is	0	0	0	25%	75%	4.75

Source: researched by author

**Table 2****Teachers' questionnaire results**

question # / points	1	2	3	4	5	mean
1. I gain more knowledge from individual/ pair/group work than from a lecture	5%	7.5%	15%	52.5%	20%	3.75
2. I feel bored during most of the lectures	5%	25%	20%	37.5%	12.5%	3.275
3. I prefer to study by myself from books than from lectures	22.5%	30%	20%	20%	7.5%	2.6
4. I prefer to study from seminars with various activities than from lectures	5%	10%	12.5%	27.5%	45%	3.975
5. A typical lecture in my experience is the teacher talking all the time, the students passively attending	50%	37.5%	0%	10%	2.50%	1.775
6. The majority of my lecturers hold interesting, useful and inspiring lectures	12.5%	22.5%	32.5%	20%	12.5%	2.975
7. A lecture is enjoyable and beneficial, if it includes question / answer, feedback, summing up, tests and some activities	7.5%	0%	2.5%	15%	75%	4.5
8. I usually cannot memorize large part of the material presented during the lecture	0%	10%	10%	40%	40%	4.1
9. I don't benefit from activities in the process of lecture	67.5%	25%	5%	2.5%	0%	1.425
10. I cannot imagine educational process at university without lectures, whatever their quality is	7.5%	10%	5%	35%	42.5%	4.15

Source: researched by author

83.33% of students and 70% of lecturers believe that students prefer to study from pair and group work (here their views more or less coincide) than from the lecture. 58.33% of students disagree with the statement that at the majority of the lectures they attend they are not required/permitted to be involved. Much more, 87.5% of the lecturers describe their lectures as not engaging. It looks like either students are more critical or the teachers who filled in the questionnaire are "the other" lecturers, which most probably is true, as the lecturers not interested in innovations normally do not take part in such researches. 83.33% of the students believe that the majority of their lecturers hold interesting and efficient lectures. Much fewer teachers (32.5%) think so. The majority of the students (91.67%) and teachers (90%) think that a lecture is enjoyable and beneficial for both the teacher and her students, if it includes question/answer, feedback, summing up, tests and some activities. 25% of the students state that they cannot memorize much of the materials presented at the lecture, while 80% think so (teachers are more critical to the students than they are towards themselves). 83.34% of the students and 92.5% disagree that there should not be any activities during the lecture. All the students and 78% of the teachers cannot imagine the educational process at university without lectures.

### **SUMMARY AND CONCLUDING REMARKS**

We can see that students' and teachers' views on lectures differ substantially. This is due to the fact of different degree of awareness of contemporary views on lecturing and to being on the opposite sides of barricades. The issues where students and lecturers have similar opinions are: students prefer to study from pair and group work than from the lecture; lecture is enjoyable and beneficial for both the teacher and their students, if it includes question/answer, feedback, summing up, tests and some activities; and there should be activities in the process of a lecture. Based on this, more teacher trainings can be recommended in order that all lectures eventually become interactive.

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# SOURCES OF FUTURE ENVIRONMENTAL KNOWLEDGE TEACHERS

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**Abstract:** *The article dwells on the analysis of the sources from which students of different pedagogical specialties get the information about the ecological state of the environment. It has been determined that students of the fields of study "Pre-school education", "Primary education", "Special education (oligophrenic pedagogy)", "Social work" and "Practical psychology" choose differently the sources of information and assess their interest to them. Less than half of the respondents (48.2%) turned out to read books about nature, and only 8.8% read popular science journals. However, TV program about nature and articles in the Internet arouse comparatively high interest. The students' activity to search for information about environment is quite low: only 21-24% of them look for TV programs and articles. Thus, it is necessary to pay more attention of students to environmental problems in the course of the educational process at university.*

**Keywords:** *ecological culture, environmental knowledge, sources of information, pedagogical education*

## INTRODUCTION

The process of constant degradation of natural environment today causes alarm among all responsible people. That's why ecological culture and environmental awareness appear among the requirements for professional competence of specialists in different fields. These concepts are relevant for future teachers who will mould the consciousness of new generations. The ecological culture is an integral part of the common human culture and respectively is an attribute of a graduate of higher educational institution [1]. The problems of ecological education of students should be among the most important issues in the educational process. Now we witness the growing indifference of young people to environmental problems in contrast to their getting worse within biosphere.

The researchers of ecological culture distinguish among its components, first and foremost, knowledge about regularities and interconnections in nature and its value orientations [1, 3, 4]. However, the first and the most important condition of successful acquisition of any knowledge is interest in them, i.e. the presence of internal or external motivation. The individual's motivation to acquire knowledge and the formation of certain personality qualities play an important role to solve educational tasks successfully. In different works motivation is defined as the source of impelling forces of human activity and behavior [2, p. 217]. Accordingly, motivation to study nature and its present-day state is the basis of further human behavior in relation to natural environment. Not only primary needs are involved in

the formation of the motives of human behavior but also social environment which has an effect on the person through mass media, literature, TV, Internet etc.

The aim of our analysis is to study sources of ecological knowledge of students of different pedagogical specialties and to investigate their influence on the interest to acquire information about the state of the environment, including either initiative in the search or disregard. We hypothesized that students of different fields of study have different level of interest in ecological knowledge and the form of presenting information affects the interest of the youth.

## **MATERIALS AND METHODS**

The problems of formation of future teachers' ecological culture and system of knowledge of nature are in the focus of interest of many researchers: G. Belenka, V. Dieda, O. Didkov, N. Lysenko, N. Yasinska et al. Education of environmental responsibility of students of higher educational institutions has been thoroughly elaborated by L. Bilyk.

We have conducted the survey of students to determine their cognitive interest in natural sciences, ecological culture and consciousness. The research involved 114 students of the following specialties: "Pre-school education", "Primary education", "Special education (oligophrenic pedagogy)", "Social work" & "Practical psychology". The research proved significant differences in the attitude to information about the state of the environment.

## **RESULTS**

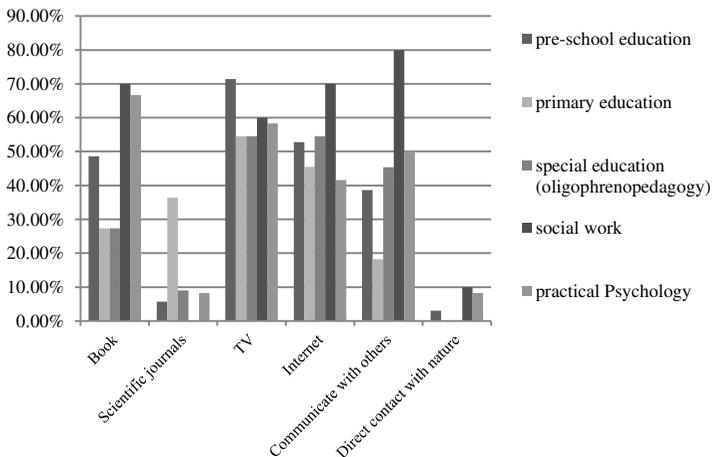
To begin with the respondents were offered to assess their knowledge of the natural science disciplines on a scale from 1 to 5 points. The answers showed substantial difference in the students' self-esteem by this factor. The future pre-school teachers employed the full range of points from 1 to 5; only 2.8% of the students assessed their knowledge as 1; 5.7% assessed as 2 as well as 5; but the average score of the students of this specialty is 3 (47.1%); and 38.7% of the students assessed 4. The results of the students of "Special education" were close to them, 3 (36.4%) and 4 (45.5%) points prevail in the rating. The rest 18.2% assessed their knowledge as 2. The results of future social workers were similar: 40% assess natural science per 3 and 4 points and 20% by 2. Most practical psychologists (66.7%) assessed themselves as 3; and half of them (33.3%) as 4. However, they did not put themselves either high or low marks. The future teachers of primary classes proved to be different: the majority (72.7%) assessed their knowledge as 4, 18.2% as 3 and 9.1% as 5. This difference in self-assessment can be explained by the fact that the students of this specialty study natural science disciplines and methods of teaching natural science. By the same reason there are comparatively more those who critically assess their knowledge: they think that they are not trained enough to teach the basics of natural science to children.

The next question concerned the subject of our research on the students' interest to information about natural environment. The highest interest was shown by the future teachers of primary classes with 4 (36.4%) and 5 (45.5%), at the same time

per 9.1% of interest with 2 and 3. The future pre-school teachers assess their interest mainly as 4 (44.3%), almost equally assess between 5 (25.7%) and 3 (27.1%); and 2 (2.9%). The number of students who has very little interest in nature is rather alarming for it is they who will mould ecological culture of pre-school and junior schoolchildren. The teachers' indifference to the environmental problems will not let them teach children effectively in the context of environmental awareness. The least interest in natural information is displayed by practical psychologists. Most of them assessed their interest as 3 (41.7%), 4 (25%), 2 (16.7%), and 1 and 5 per 8.3%. One's psyche is in the focus of interests of these students, that's why the problems of nature environment recede into the background. Most students majoring in "Special education" and "Social work" are interested in nature with 4 (45.4% and 60% respectively), a little less with 3 (36.4% and 20%), and 5 with 18.2% and 10%. Taking into consideration the fact that these future specialists will work primarily with socially vulnerable members of society for whom problems of health and living conditions remain of paramount importance, they still display moderate level of interest in nature.

The most interesting question for the respondents was to determine the source of knowledge about natural environment. Books of nature are not very popular among young people, less than half of the students read them were just 48.2%; although there are differences with the representatives of the specialties: about 70% of future psychologists and social workers read these books, but future teachers, pre-school teachers and special needs teachers, who will actually teach children, show low interest in natural literature (from 27.3% up to 48.6%). However, future teachers take practically no notice of popular science journals on nature. Only 8.8% of the surveyed students read them, and they are mainly the students of the specialty "Primary education" (36.4%). The social workers do not read popular science journals at all. The articles in journals are a source of information for 5-9% of students of other specialties. TV programs about nature and scientific articles from the Internet enjoy more popularity. The preference of one or the other source is uneven among the various specialties. The students of "Special education" get knowledge equally from TV and Internet (54.5%), the same number of future pre-school teachers prefer TV programs and a little less (45.5%) the online articles. Future psychologists choose more often television programs about nature than Internet articles (58.3% versus 41.6%); the same can be said about pre-school teachers (71.4% versus 52.8%). Only social pedagogues prefer Internet articles (70%) and TV programs (60%).

The students named communication with other people among other sources of information about natural environment (42.1% trust them). Most of all (80%) representatives of the specialty "Social work" like to communicate on such topics and only 18% was "Pre-school education". It is strange for specialists who will mould the outlook of children in the future. Only 4.4% of the respondents get knowledge while traveling and walking. The distribution of the selected sources of information is presented in the diagram (*Figure 1*).



**Figure 1: The distribution of selected informational sources on the nature by students of pedagogical specialties**

*Source: created by author*

While considering the question of students' motivation to get ecological knowledge, we determined their initiative in the process of information search. For example, on average, 21% of students look for TV programs about nature purposefully, but future psychologists do not do it. 57% of students watch such TV programs in case they come across them. 5.3% of respondents do not want to watch it and the students of "Pre-school education" prevail among them. 23.7% of respondents deliberately look for articles on the natural sciences, considering the answers to the previous question these are mainly online articles. 50% of students read articles if they come across them. The leading position here belongs to "Social work" and "Practical Psychology" (80% and 75%). Only representatives of "Pre-school education" do not want to read scientific articles (14.3% of them). The students of other specialties did not respond to this question. No matter what knowledge and interest in nature the students of different specialties show they are common in one issue. The majority of the respondents definitely answered that they often liked to walk out-of-doors using every opportunity. Respondents' answers were distributed in the following way: future psychologists (66.7%), primary school teachers (72.7%), and students of other specialties from 80% up to 90%.

## DISCUSSION AND CONCLUSIONS

Thus, the survey proves that the chosen specialty by the students correlates with the interest in information about natural environment and with knowledge of it. Internal motivation of future teachers to search for natural science and ecological studies is quite low. The students do not practically read popular science journals and very few of them read books. A lot of students get information from television and the Internet, and it corresponds to modern trends and their preferences.

Taking into consideration the necessity of forming ecological culture of higher educational institutions graduates, namely, future teachers who will work with children and serve the models of behavior and attitude to environment, there is an increasing concern about their low level of knowledge and indifference to nature protection problems.

Comparatively large number of future teachers who are not interested in natural scientific information is of major concern. If the work of psychologists, social workers and special education teachers is concentrated on different aspects of problems of a person, then the teachers' task is to introduce children to environment and mould their environmental awareness.

Therefore, the current problem of improving University students' motivation to get environmental knowledge from different sources independently requires developing the system of environmental measures.

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# USING DOCUMENTARIES TO TEACHING AND LEARNING IN SOCIAL SCIENCES INSTRUCTION IN SCHOOLS AND EVALUATION OF THE METHOD EFFECTIVENESS

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**Abstract:** *In our modern society, researchers and teachers are concentrated on how to improve the quality of teaching and learning. Therefore, improvement of quality of teaching and learning we see as one of the most important issues in education. As the concepts of education and schooling are broader, education does not contain the process of just transmitting and receiving the academic knowledge for learners. This paper will first give an overview of one of the method, so-called teaching through documentaries in Social Sciences (Civic education, History and Geography) in high schools, will present the views of teachers how the above mentioned method enhances classroom management, where all can benefit and finally, will provide the data about the evaluation of effectiveness of the method obtained from the qualitative survey with teachers. The experiment which was previously held proved the positive effect of audiovisual aids, specifically, documentaries on the formation of adolescents' values, attitudes and standpoints in the process of teaching/learning of social sciences (Civic Education, History and Geography) at high school level (grades 9-12). The effects of documentaries on creating a positive classroom environment have been identified through interviews with six teachers who were involved in teaching through documentaries.*

**Keywords:** *classroom management, audiovisual aids, documentary film, value*

## INTRODUCTION

The purpose of this research is to evaluate the effectiveness of using the method "teaching through documentaries" to teaching and learning in social sciences field (Civic education, History and Geography) in high schools. The study represents data about how teachers can engage students and produce more meaningful and deep learning experiences by using documentary films. The use of audiovisual aids, specifically, documentaries to enhance teaching and learning complements traditional approaches to learning. Films will never replace the textbook, but the use of films can enhance the learning environment by placing the student in a familiar arena, the movie theater. Using documentaries engages students, aids student retention of knowledge, motivates interest in the subject matter, and illustrates the relevance of many concepts.

The qualitative study is the second phase/continuation of the main survey which was previously conducted with 204 high school students. The main objective of the first phase of the survey was to observe changes in values toward social issues

between high school students with experiment intervention. With this regard seven main topics were identified (human rights, environment protection, acceptance/tolerance/migration, civil activism conflicts, education, and bullying).

This phase of the experiment included pre and post-questioning in control and experimental groups of students, use of the thematic documentaries during the teaching process and post-screening activities. The data obtained from the research shows the effectiveness of the intervention (Kuchukhidze, 2016).

***One World in schools:*** One World in Schools is an educational program run by the People in Need foundation. The program focuses on promoting education through documentary films and other audiovisual materials in primary and secondary schools. The experience of running the program for more than 13 years has confirmed that documentary films are a great way of initiating debates and promoting interest among students in human rights, global development education, the environment, racism, and other issues, whilst also enabling them to form their own opinions, attitudes and values. Currently, the program's materials are used by teachers in over 3.000 primary and secondary schools throughout the Czech Republic. In the recent years, the educational program has been spreading beyond this country's borders and focusing on cooperation with organizations from other countries, which are interested in introducing the One World in Schools (OWIS) model in their national educational system. From 2010 the program works in Kosovo, Bosnia and Herzegovina, Macedonia, Georgia, Armenia and Mongolia.

The goals of the educational program are to raise young people's awareness about the challenges of today's world and current social issues as well as to initiate a debate, think critically and formulate questions and educated opinions about human rights and relevant issues. It also aims to promote an understanding of the global processes that influence the lives of people in the world and to cultivate a sense of responsibility that will actively encourage them to contribute to addressing current social problems.

The program offers schools documentary films and teaching methods handbooks for teaching about topical subjects concerning today's world and modern history. The selected films help increase awareness among young people by raising questions and pushing students to search for answers, drawing parallels to the students' own lives and encouraging them to form independent opinions. By using the medium of film, the program gives the students the chance to experience emotional conflict and interact with others as opinions and values form and understanding grows.

***One World in schools in Georgia:*** In Georgia, the educational program "One World in schools" firstly started in 2010. Georgian secondary schools are provided with toolkits containing a methodological guide for teachers, 16 documentary films chosen specifically for young people and tools for interactive activities (role games and quizzes, sample work sheets, etc.).

This learning material consists of documentaries and social spots on DVD and a methodological handbook for teachers. Methodological handbook containing each documentary has these didactic materials: synopses to films, informational sections, which are in Q+A (questions and answers) form and should help to get basic information about the film topic, descriptions of specific activities and worksheets

for activities which can be used for teaching. The material is designed to guide teachers in facilitating the necessary learning activities for each film.

## MATERIALS AND METHODS

**Research Design:** The following qualitative research was carried out with six teachers in Tbilisi. In-depth interviews were conducted with teachers to explore the participants' opinion about the methodology "Teaching through documentaries", the advantages and limitations of the method, its effect and main findings. The main goals of the research are to: 1) evaluate the effectiveness of the method "teaching through documentaries" in social sciences instruction (Civic Education, History and Geography) in high schools; 2) study the satisfaction level among school teachers applying the method in teaching/learning process.

**Instruments:** Interview protocol form was developed for in-depth interviews with teachers. The designed interview protocol form focused on revealing the respondents' opinion and level of satisfaction regarding the method effectiveness in practice. The questions were related to the process of using the method, the advantages and limitations, the applicability and the worth of the method in practice, and the effect of the intervention on students as well as on teachers. It asked 13 major questions.

The interviews were rerecorded on audio tape with the informed consent of all interviewees. Then later transcribed and analyzed.

**Research Participants:** The respondents in this research were high school teachers. The age of respondents varies from 30 to 50 years. In total, 6 teachers from 2 target schools took part in the survey. Out of 6 respondents 2 are teachers of Civic education, 2 teachers of History and 2 of them are teachers of Geography classes.

## RESULTS

Respondents have been highly positive in their use of documentaries in the classroom, and perceive it to have contributed to significant learning gains in their students. All teachers emphasized that the method is a novelty in Georgian educational system that contributes in an efficient teaching/learning process in high schools.

**Interviewer:** *What can you say about the method "teaching through documentaries"?*

**Respondent 1:** *It is a contemporary and effective method. Using films and follow-up activities, increases students' motivation and enthusiasm as well as promotes effectiveness of the teaching / learning process in classroom.*

**Respondent 2:** *Teaching through documentaries represents a relatively new approach to teaching / learning process in Georgian educational system; we apply various contemporary strategies to enhance an academic process but the method is a unique in our reality.*

Respondents state that teaching through documentaries is a quite applicable method as the films' topics and their duration correspond to the lessons' duration and in general to the social studies curriculum established in high schools. The

films' topics are understandable and attractive to students. Applying documentaries in social sciences instruction in schools is more than traditional on-paper + lecturing way of teaching. The method enhances classroom management and students' motivation. Majority of respondents say that documentaries are an effective way for stimulating the discussion among students.

**Interviewer:** *Did the method have any effect on students' motivation/participation during the teaching / learning process?*

**Respondent:** *When you see the similar story lively which is in your text-book, it seems closer to you; it stimulates new feelings and thoughts in you. My students always wanted to express their own opinions; I would say this is the most interesting and thought-provoking way how to stimulate discussion among students. It stimulates students' more involvement in the classroom.*

Respondents have appreciated the use of documentaries because they have found them interesting and helpful. They reported feeling more motivated. The method requires from teachers new skills, approaches to the lessons and increases their enthusiasm too.

**Interviewer:** *What have you got from using the method "teaching through documentaries"?*

**Respondent:** *I watched each film and planned every activity in advance; I had to learn much about different topics, facts beyond the school program. Though it is time consuming but at the same time it is interesting. Using documentaries made me think a lot how to present various topics in classes, how to engage my students in discussions. I would say it made me more motivated in teaching and applying different strategies in the classroom as well as broadened my knowledge about specific topics.*

According to teachers, besides the academic knowledge, documentaries represent a great way of demonstrating to students positive and realistic role models, supporting their value development and personal growth through self-reflection, discussions and various activities which are related to films' topics.

Teachers mentioned that the use of documentaries helps students to connect the subject matter to the real world beyond the classroom. It enables students to see concepts in a new way. A film has the potential to create an emotional connection to its subject matter and can provide a human experience. Students can experience the world through real-life people as well as see and feel what it is like for a person living around the world.

**Respondent:** *One thing is talking about migration topic, about its reasons, difficulties and consequences. The other thing is just lively see the life of immigrants in another country. You see young boys from Afghanistan or from Somalia living in The United Kingdom, asylum seekers and you feel their emotions, understand their thoughts, fears, troubles and dreams... Students experience the world through real people, real events. This is a connection between subject matter and real world beyond the classroom.*

As for limitations of the method respondents mentioned limited number of documentaries dubbed in Georgian or locally produced documentary films and also

some technical problems that they faced while using the method in practice. Some respondents say that teaching through documentaries is a time consuming process as it demands from teacher preliminary preparation and planning the lessons, watching the films in advance, learning presented issues in the films as well as technical preparation of film screenings.

**Interviewer:** *What challenges did you face while applying the method in educational process?*

**Respondent 1:** *Resources are limited, I mean documentaries that are dubbed in Georgian and or local films, especially, considering the fact that many films are not appropriate with student age, to school program etc.*

**Respondent 2:** *The method requires from teachers good technical skills and proper equipment in schools (computer, projector). In my opinion, not every school has the appropriate conditions or not every teacher is trained in using the technical devices in Georgia. I think, in Tbilisi or in big cities of Georgia it does not present a problem but in rural areas schools do not have proper material-technical base, I doubt that also many teachers do not have the skills to work with such technical devices.*

4 out of 6 respondents declared that the method does not need any improvement; 2 respondents said that new documentaries and methodological handbooks for teachers should be created. The films and interactive activities should be renewed periodically.

All respondents think that the method "teaching through documentaries" gave them new experience, improved their teaching quality and have increased teachers' motivation to learn about new methods/strategies that will be interesting and useful for their students. According to teachers using of documentaries in teaching / learning process of social studies in high schools is one of the good complementary methods together with traditional approaches which must be applied in practice. It gives teachers additional opportunities to make their teaching practice more interesting, tangible for students that mean better quality of educational process in general. Therefore, the method will be quite beneficial for Georgian educational system and it might be applied in other subjects in schools in future.

## CONCLUSIONS

Based on the main findings of the qualitative research we can conclude that the use of documentaries to enhance teaching and learning complements traditional approaches to learning. Applying documentaries in social sciences instruction in high schools is an effective and contemporary method that enhances educational process. It enhances classroom management and engages students, aids student retention of knowledge, motivates interest in the subject matter, and illustrates the relevance of many concepts. Films stimulate more involvement of students in classroom and build social and emotional awareness of students in ways not available from textbooks or lectures. The use of the method is beneficial for teachers too as they gain new experience, broaden their knowledge and are more motivated to learn and apply new strategies in practice.

***Limitations in using documentaries:*** 1) material-technical base of schools, technical problems of devices and/or technical skills of teachers; 2) limited number of documentaries dubbed in Georgian or locally produced documentary films; 3) teacher has to invest more time in preparing their lectures.

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# PSYCHOLOGICAL AND PEDAGOGICAL CONDITIONS OF PROVIDING EFFECTIVENESS OF THE PROCESS OF METHODOLOGICAL TRAINING OF FUTURE TEACHERS OF LABOR EDUCATION AND TECHNOLOGIES

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**Abstract:** *The article deals with the problem of quality of methodical training of future teachers of labor education and technologies. It is pointed that effectiveness of the process of methodical training of future specialist in educational branch "Technology" depends on compliance with certain psychological-pedagogical conditions. These conditions include orientation of the process of professional training on the professional forming of the future teacher's personality; targeted construction of the effective psychological-pedagogical, personal-oriented system of activity of high educational establishment and educational process at this high educational establishment; qualitative psychological-pedagogical training of teaching staff for the participation in the functioning system of professional training of future teachers; self-formation; necessarily and qualitative evaluation of the process of professionally-personal incipience of young specialists; application of personal-oriented technologies within the professionally-oriented educational process; considering influence of the teacher's personality on the student; activity of students; which could be caused by the content of the educational material and by the forms of activity on its' mastering; teacher's acts. The article focuses on the peculiarities of realization of the determined conditions during the methodical training of the teacher within the educational sphere of "Technologies".*

**Keywords:** *teacher of labor education and technologies, methodical training of the teacher, educational sphere "Technologies", psychological-pedagogical conditions, technologies of teaching, professional training of the teacher*

## INTRODUCTION

The main goal of the education at high educational establishments is the forming of the necessary experience of future teachers for their successful realization of the professional activity. According to A. Markova, achievement of the professionalism's vertex has 5 stages: adaptation of the person to the profession; self-actualization in the profession; harmonization of the person and the profession; stage of the enrichment of the person with his profession, stage of the free mastering of some professions [2]. The first stage of entering the profession made by the future specialists in the sphere of technological education begins at high pedagogical educational establishments. It realizes mainly during the studying of disciplines of psychological and pedagogical and methodical blocks, which are studied at different courses of high educational establishments. As usually this process takes place within the

conditions of interdisciplinary orientation' absence of senior classes on the methodical training. The effectiveness of this stage could be increased with the help of orientation of the whole educational process within a certain department on future pedagogical specialty which is considered by us as the main principle of organization of the educational-cognitive activity at high educational establishment. We name it "the principle of concentric and crosscutting methodical training".

In our opinion, realization of this principle is able to direct the teaching staff of the high educational establishment, department and students (future teachers of labor education and technologies) on the necessity of constant research (during all studies of different disciplines) for answering to the main questions which determine the content and purpose of the methodical science: "What is the sense of teaching?" (Goals of the education?); "What to study?" (Content of the education?); "How to study?" (Technologies of the education?).

We agree with the opinion of V. Sharko [4] and we consider that in relation to the principle of concentricity and crosscutting feature of the methodical training the principle of professional orientation of the educational process at high educational establishments as the main one.

## **MATERIALS AND METHODS**

Methodological and theoretical fundamentals of the research are: works of scientists who examine problems of training future teachers at high educational establishments. The validity of the received results is proved by the using of scientific and specific methods: theoretical generalization, abstraction, dialectical analysis, systematization and comparison, and system approach.

## **RESULTS**

The mission of the high educational pedagogical establishment is not only in the teaching of future specialist of pedagogical profession, but also in the forming of a model of future professional. That's why the teaching staff of the high educational establishment has to admit to certain requirements during the elaboration and realization of such model.

O. Stolyarenko [3] (who is a famous specialist in the sphere of psychology of professional education) determines three basic groups of requirements: 1) for the personal basis-psychological preparedness which include: *professional orientation, moral-psychological orientation, development of professional abilities*; 2) for the personal social-psychological preparedness which include: *professional component of outlook, professional group integration, professional motivation, professional culture, professional self-awareness*; 3) for special professional preparedness which include: *professional education, professional mastery, professional-psychological preparedness*.

Firstly, the realization of these requirements during the professional forming of the future teachers of labor and technologies demands the familiarization of students and teachers with these requirements.

Unfortunately we deal with the tendency of unpredictable, uncontrollable and sometimes spontaneity in the process of professional development of future teacher's

personality (at some pedagogical educational establishments of Ukraine). This disadvantage of work of high educational establishment could be overcome firstly with the help of creation such psychological-pedagogical conditions which would promote the professional formation of the future teacher. One of the important components of it is the qualitative methodical training of the future specialist.

O. Stolyarenko [3] during the analysis of the process of pedagogue's professional training determines such conditions of increasing its effectiveness:

*The first condition* is orientation on the professional formation of the specialist's personality. The goal, as the author states, determines the content and way of all constructive acts of the educational establishment. According to the author's point of view, in these terms have to be reflected the requirements for the professional's training. We consider that this idea is very important because the professional formation of the future teacher of labor and technology depends mainly on the way of solutions of their methodic training.

*The second condition* is the targeted construction of the effective, psychological and pedagogical, personally-oriented system of activity of the high educational establishment and (in general) the whole educational process. For the implementation of this condition we have to create such environment which will provide the forming of such features among students which are natural for the teachers. These are such features: responsibility, communicativeness, good organization, honesty, demanding of themselves and others, professionalism, scrutiny, research approach to the matter, creativity. Author focuses on that fact that all new forms, methods, models of teaching and material payments will lead to the desired result only if they will be subordinated to the solution of tasks of general and professional development of every student [3].

*The third condition* of the increasing of the specialists' training is the maximum intensification of students' education and help to them during their self-formation. This condition bases on the statement is possible to learn something only during the process of your own activity. This statement correlates with the activity approach of teaching. The compliance of this requirement causes the necessity of implementing such methods of teaching which will reduce the passive state of the participants of the educational process. These methods would activate the independent work which is impossible without the mastering knowledge about the ways of gaining knowledge without their remembering and implementation. It is impossible also without interest, stimulation of independent cognitive activity, without the creation of such atmosphere within which the student would have the desire to study hard and qualitatively for own enrichment and development.

Implementation of the national educational system into the Bologna process is that objective factor which made our high educational establishments to increase the part of the independent work of students. But without the compliance with the pointed requirements the result of their implementation is rather low.

The next condition of the effectiveness of the process of teacher's professional training is the qualitative assessment of the process of the professional-personal formation of young specialists. Realization of this condition is connected with the

necessity of implementation of reverse connection between the teacher and the student. This reverse connection has to be systematic; it has to inform all the participants of the educational process about the effectiveness of the way to the peaks of the professional mastery of the students, who are future specialists of the educational sphere "Technology".

The fifth condition is the implementation (during the professionally-oriented educational process) of the personally-oriented technologies. Studying problems of psychology of professional training such scientists-psychologists focused on the fact of the necessity of compliance with this condition. Within modern educational theory and practice there were created a great number of principally new and improved technologies of professionals' training. We have to consider their implementation as the important factor of increasing effectiveness of the process of training of future teacher of technologies. Within the conditions of modern high educational establishment we have used personally-oriented technologies:

1. *Personally-oriented realization of the students' professional training.* This technology foresees the attitude to future teachers as to the main members of the educational establishment; realization of active personally-oriented work in all directions (during all auditorium and extra-curriculum lessons); considering individual peculiarities of each student's development during the planning of educational lessons with the aim of determining strategies of their education, development and professional formation.

2. *Technology of personally-oriented organization of educational lessons.* This technology has to base on: a) the individualization of educational tasks and tasks for the control of educational achievements of the students; on the implementation of all opportunities for the connection of the content and forms of teaching with the future professional activity; b) the grounded choice of forms of conducting lectures, seminars and laboratory lessons which is oriented on the maximum result within the auditorium; c) the requirements to students to consider lessons as the prior form of providing their professional formation; to make home tasks qualitatively and independently; d) the creation of psychological atmosphere which is oriented on the support of the organizational order and disciple during their lessons.

3. *Technologies of students' training for their life and activity within the conditions of humanization and liberalization of the society and within conditions of market relations.* In the context of determined directions of professionals' training we have to pay attention to humanitarian aspects of students' professional activity; to involve them into such forms of work within which they would have an opportunity to see the principles of democracy on practice, to feel the variety points of view of different people.

4. *Technology of interest in education and profession.* This technology is oriented on the mobilization of students' efforts and abilities on the performing of the actions which were proposed by the teacher. According to the point of view which is stated by G. Shchukina [5], the teacher with the aim of supporting the interest has to consider ways of development of intellectual feeling during the revealing of the lectures' topics and during the organization of the seminars.

*Activity of students (which could be caused by the content of the educational material, by the forms of its' mastering, by actions of the teacher) is the sixth condition of the effectiveness of professional training of future teachers of educational sphere "Technology".*

The state of activity is connected with the desire of those who study to master that material which they are taught. Basis elements of technologies of achievement of students' activity take place in such statements: to plan lessons considering peculiarities of development brain activity of people of student's age; to foresee the implementation of special ways for the attention's concentration, minutes of rest; desire to conduct lessons emotionally, with the inspiration; to try to give more opportunities to students to reveal their independence, to support their initiative; to stimulate the creative approach to education.

*The seventh condition is the considering influence of teacher's personality on the student.* The teacher always has influence on his students. The effectiveness of this effect will increase if the pedagogue will be accepted by future specialists as the professional, honest and faithful person which is interesting for students. Such teacher gives the educational discipline and its' conducting of the personal character; enthusiastically and passionately refers to his work, considering vital vocation.

## **DISCUSSION AND CONCLUSIONS**

The determined conditions are necessary for the increasing quality of professional training of the specialist of various profile including teachers of labor and technologies.

According to the point of view of V. Sharko they coordinate with "the adaptation approach" to education which reveals the mechanism of development of education's subject, including professional.

Adaptation is the universal phenomena of person's life which reflects in the adjustment to new, changed conditions of the environment. For the providing of students' development we have to change conditions of their education, proposing new forms of tasks, involving new forms of activity [4, p. 223]. With the aim of providing adaptation of young teachers to the work and development of inside mechanisms of their actions within the conditions of modern secondary educational establishment we have to change the process of their training.

Thus the process of the professional training has to foresee the opportunity of creating such conditions which will guarantee the possibility to act according to job responsibilities. This demands reflection of modern requirements to the activity of the teacher of labor and technologies in the context of his professional training

Main attention at high educational pedagogical establishments has to be paid especially to the methodical training because it is the core which integrates in itself the psychological-pedagogical and special components of the professional training of the future pedagogues including teachers of labor and technologies.

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# PROFESSIONALLY IMPORTANT QUALITIES AS THE BASIS FOR THE PROFESSIONAL COMPETENCE OF THE ENGINEER-PEDAGOGUE

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**Abstract:** *The article discovers actual problems of forming professional competences of future engineer-pedagogue within the sphere of safety of the informative systems. In particular, it is examined the question of professionally important qualities of the engineer-pedagogue, which in general influence the quality of forming professional competence' process of the future specialist. The article includes results of students' surveys, which have been analyzed in terms of their evaluation of the importance of certain person's qualities for the formation of the future engineers-pedagogues' competence within the sphere of the safety of informative systems.*

**Keywords:** *engineer-pedagogue, competence within the sphere of safety of informative systems, professional competence, professionally important qualities, creative personality*

## INTRODUCTION

Formation of professional competences as the integrated quality of personality, which would satisfy growing demands of education and society and would reveal as within the activity has to reveal systematically. The nature of competence is in that fact that it could reveal only within the organic unity with qualities and values of the person within the conditions of evaluative-content attitude and deep interest of the future specialist within the certain sphere of professional activity [6].

The professional competence reveals within the way of life, ways of specialist's behavior, who realizes the professional pedagogical activity, using own personal resources, fund of opportunities, i.e. knowledge, skills, habits, states, peculiarities (firstly, with the person's ability to use this reserve if it will be needed).

During the mastering and realization of professional activity personal qualities become more professional, creating the independent substructure, i.e. professionally important qualities which are considered to be psychological qualities of the personality which influence on the effectiveness of the professional activity, productivity and successfulness of its' mastering. They are multifunctional and at the same time each profession has its own ensemble of these qualities.

## MATERIALS AND METHODS

The methodological and theoretical basis of the research is the scientific works of scholars, who examine and explore problems of formation professional competences of future specialists at high educational establishments. The validity

of the received results is proved by the using of various generally scientific and specific methods: theoretical generalization, abstraction, dialectical analysis, comparison and systematization, system approach, survey.

## RESULTS

The profession of "engineer-pedagogue" is the combination of the engineer who has technical knowledge (oriented on the solution of technical tasks) and pedagogue who has psychological-pedagogical and methodical knowledge, skills and abilities [3].

V. Bezrukova states that engineer-pedagogical activity is the combination of activity in two systems, i.e. "person-person" and "person-technique", in other words we deal with the combination of social and technical types of work [1].

O. Malenko suggests considering the engineer-pedagogue's activity as the complex activity which unites the social, scientific, engineer, psychological-pedagogical and methodical components. Mastering these components gives personality the opportunity to realize needed functions in the mostly correct, appropriate way [5].

Studying the problem of the professional formation of the engineer-pedagogue's personality, E. Zeer states that the word combination "the engineer-pedagogue" does not mean "the engineer" plus "the pedagogue", but leads to the creation of the new notion [2, p. 16]. The scholar determines three components within this research: pedagogical, engineer-technical and industrial-technological (work) [3, p. 39].

According A. Seitesev, the engineer-pedagogue is evaluated not only as the teacher of the technical and special disciplines. The author states that "the engineer' pedagogue's readiness for the professional activity depends on the deep of his general-engineering, general-technical, general-educational, general-methodical, general-pedagogical, psychological, professional-application knowledge and skills" [8, p. 273]. The researcher states that the modern professional education requires "not the pedagogue with the pedagogical training, but in needs the pedagogue, who has the engineer education and high worker's skills" [8, p. 301].

E. Zeer suggests using the concept of the dynamics functional structure (developed by K. Platonov) for the analysis of engineer-pedagogue's structure of the personality. The author states that the structure of the personality of the engineer-pedagogue has to include: 1) socio-professional orientation, i.e. professional position, professionally evaluated orientations, motives, professional self-determination, vocation and pedagogical ideal; 2) professional competence and complexes of engineer-pedagogical knowledge and skills; individual experience, pedagogical mastery; 3) professionally important qualities; 4) psychological and dynamic characteristics [2, p. 60]. According to the researcher's point of view, professionally important qualities are the special substructure of the engineer-pedagogue's personality.

The term "professionally important qualities" is interpreted ambiguously among the scholars who deal with the problems of formation engineer-pedagogue's personality. There is no clarity on the list of the qualities which are considered to be "the unity of such personality's peculiarities which determine the efficiency of mastering activity and improvement within this activity" [7, p. 56].

In the research of the personality and activity of the engineer-pedagogue V. Bezrukova underlines that it is necessary to obtain the ideological credibility, social optimism, social responsibility and professional position [1, p.67]. In this opinion, the engineer-pedagogue has to be the person with the high moral, human, intelligent, emotionally stable person who has the pedagogical tact. The scientist focuses attention on such features of the engineer-pedagogue's personality, such as activity, energy, flexibility, efficiency, extrovert features, emotional stability, quick reaction, enough sufficient speed of the reflexes [1, p. 67].

L. Tarkhan refers to the main pedagogical qualities of the engineer-pedagogue such psychological-physiological (non-standard thinking, logical thinking, ability to remember, attentiveness, figurative imagination) and professional (creativity, professional mastery, scientific and cultural outlook, personal initiative, independence, self-improvement, communicability, culture of communication and behavior, foreign languages speaking, self-analysis and self-evaluation, implementation of scientific recommendations into the own activity, implementation of the theoretical knowledge in practice, technical and technological competence, didactic competence etc.) qualities [9, p. 197].

In our opinion, Zeer's position is very interesting because he considers the professionally important qualities, such as logical thinking, creative potential, empathy, pedagogical reflection, communicability, subjective control and social intellect.

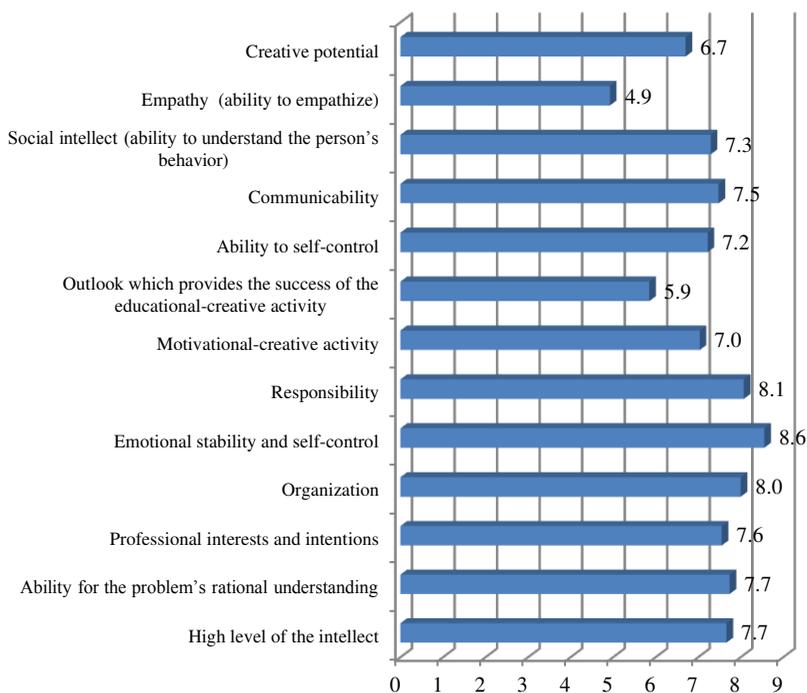
The determination of the professionally important qualities of the engineer-pedagogue is complicated by the fact that the professional diagrams of the engineer and pedagogue contain different complexes of knowledge, skills with different professional orientation.

O. Ivanova determines professionally important features of the pedagogue not only as the certain components of the profession's components but as the general normative indexes of the profession, i.e. indexes of psychological structure of the professional activity. There are also specially analyzed objective and psychological characteristics of the work, which allows determining professionally important qualities, which correlate with the tasks of the pedagogical activity. Within the proposed professional diagram of the pedagogue author determines such groups of the professional qualities as peculiarities of the cognitive sphere; peculiarities of the nervous system; motion characteristics, communicative characteristics; motivation; evaluative-moral and will characteristics; artistic-aesthetic abilities; professional and life experience; psychological-physiological characteristics [4].

Within the professional diagram of the engineer there are determined physiological, psychological, social and moral-motivational-evaluative groups of qualities. The technical opportunities, technical observation, technical thinking, space imagination are very important for the engineer-pedagogue. The work of the engineer has the creative character. The engineer has to act independently, initiatively, creatively; to have organizational abilities, the sense of responsibility; to think about the problem rationally. The significant quantity and variety of the personal and professional qualities are revealed on the basis of the mentioned approaches and on the basis of other approaches. We consider that the most important professional qualities of the

engineer-pedagogue (which are the base for his professional competence) are: communicability; social intellect; empathy; creative potential; social-psychological tolerance; pedagogical reflection; organization; emotional stability and self-control; sensory-motor abilities; ability to understand the problem rationally and critically; professional interests and intentions; responsibility; motivational-creative activity; outlook. These qualities provide the success of the educational-creative activity, ability to self-management of the personality.

The determined qualities, which were received due to the theoretical analysis, were given to the students of Berdyansk State Pedagogical University (specialty "Computer Technologies") as the survey. The students had to evaluate the significance of these qualities for the formation of the future engineer-pedagogue's competence within the safety of informative systems. The scale was: the rank from 1 to 10 points. According to the students' point of view, the most important qualities are communicability, responsibility, emotional stability and self-control, organization, ability to understand the problem rationally and critically, professional interests and intentions, high level of the intellect. The empathy and outlook qualities are the least important for the students. The results are given in the *Figure 1*.

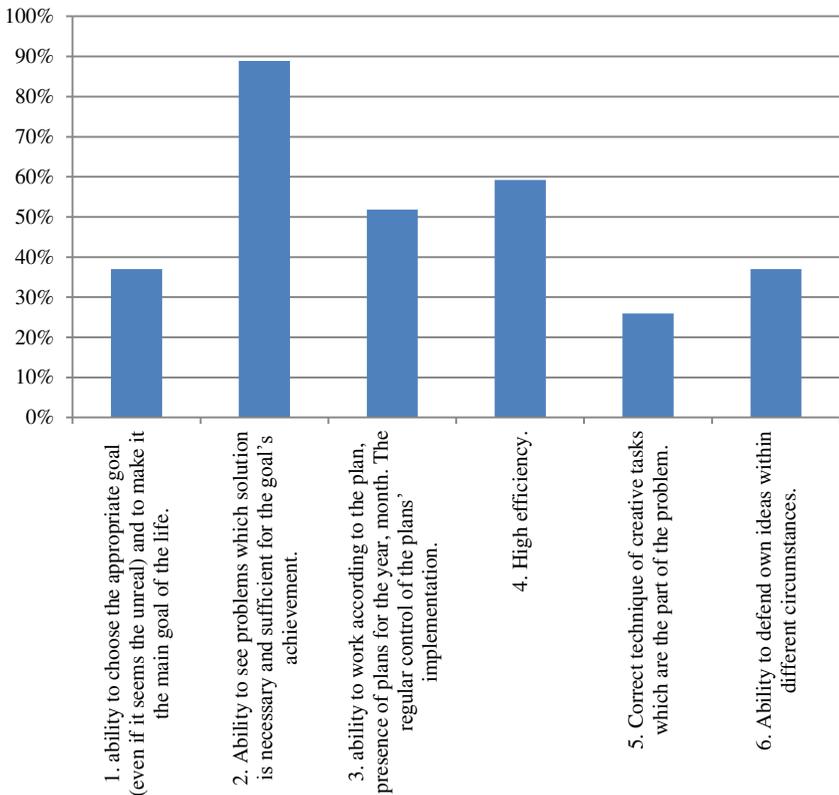


**Figure 1: Professional qualities which are necessary to form of future engineer-pedagogue's competence within the sphere of safety of informative systems**

*Source: created by author*

The results of the research allowed determining the image of the competent engineer-pedagogue as the person who has the certain set of the personal qualities, i.e. professionalism inferiors to these qualities.

According to the survey's results, 85% of students state the importance of the creative abilities and skills of the future engineer-pedagogue for his professional competence, but 15% of students think that the engineer-pedagogue doesn't need these skills at all. Students determine such qualities of the creative personality which influence directly the formation of the engineer-pedagogue' competences (within the safety of informative systems), such as ability to see the problem, whose solution is necessary and sufficient for the goals realization (82%); ability to work according to the plan, presence of the plans for the month, year, regular control of the implementation of these plans (52%); high efficiency (59%). The results are given in the diagram (Figure 2).



**Figure 2: Qualities of the creative personality which influence the formation of competence of the engineer-pedagogue within the sphere of safety of informative systems**

Source: created by author

## DISCUSSION AND CONCLUSIONS

Results of our research have allowed determining the professionally important qualities of the personality of the engineer-pedagogue ("Computer Technologies"). It is very important fact because it allows constructing the competence model of the specialist to reveal peculiarities of the engineer-pedagogical activity, considering the training specifics for this activity.

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# COMMUNICATIVE FUNCTIONS OF GIROLAMO DE RADA'S LITERARY WORK TREATED IN THE HIGH SCHOOL TEXTBOOK "THE ALBANIAN LANGUAGE AND LITERATURE"

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**Abstract:** *the aim of our research is to consider presentation the communication functions of Girolamo De Rada's<sup>1</sup> literary work presented in high school textbooks. Used methodology: analysis and comparison of the four different editions of the textbook "The Albanian language and literature", grade 10 of the high school system, presented by the following publishing houses: Pegi; Albas; Mediaprint; Centrum Production. Literature is a form of communication. The communicative functions of literature stand on the fact that, both the written and spoken literature address to certain and unpredictable masses of public. Literary communication coincides with the general scheme of the linguistic communication, yet in a more complicated way. This writing intends to look into the ways the emotional, promotional, referential, meta-linguistic, factual and poetical functions which have been reflected in the literary work "Songs of Milosao" by Girolamo De Rada, a lyrical romance which has been introduced to grade 10 of the high school textbook "The Albanian language and literature". The textbook itself has been edited and presented by different publishing houses. The research focused on finding to what degree the up-mentioned functions are introduced in this literary work as well as the ways they have been presented to the students in the book.*

**Keywords:** *emotional, promotional, referential, meta-linguistic, factual and poetical functions, linguistic analysis*

## INTRODUCTION

Great times bring forth great poets, the ones who are distinguished for the variety of themes cultivated, for the profound issues tackled as well as for their powerful art. Precisely these are the very traits distinguishing the literary work of the great Arbereshi poet Girolamo De Rada (Kodra, 1988, p. 3). Beyond doubt, De Rada has been considered as one of the representatives of the Albanian romanticism, although he was born relatively late, due to the specific conditions of our country's development. Differently from what has been referred to romantic writers, the Albanian romanticists eulogized the Albanian nature, not nature in general; they lauded the beauties of the Albanian nature to revive affection and pride for our motherland.

## MATERIALS AND METHODS

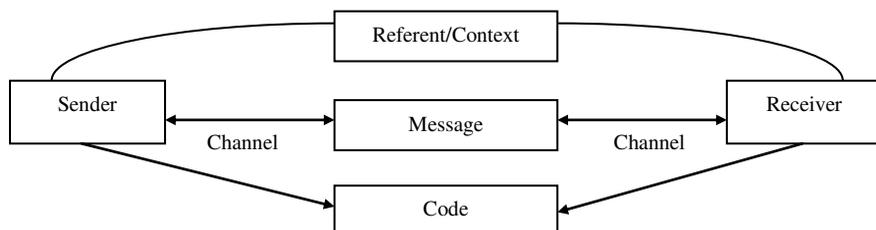
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<sup>1</sup> The Italian-Albanian poet Geronimo de Rada (1814-1903) was born in Macchia, Calabria, Italy and is a major representative of southern European romanticism. His lyrical romance, Songs of Milosao (1836) is the poetic diary lived in part by its author, who wrote it under the influence of Albanian popular poetry (he was at the time collecting Albanian folk songs in his native village, Macchia, in Calabria).

The Albanian romantic heroes are far more palled up yet disappointed by the aristocratic life; they are ready to sacrifice everything for the freedom of their homeland. They are represented by the rank and file, the farmers, peasants and herdsmen, generally people trying to find delight in their country of birth. Just like the European romanticists, the Albanian romantic writers addressed the treasures of the Albanian folklore, so promoting its peculiarities, features and its national originality. The most inquired form of romantic literature is the poem, as the most required epic-lyrical weaving and arising forthwith emotions, views and events (Petro, Meniku, Marashi, Shehri, 2009, pp. 248-249). Although Arbereshi romanticism evolved away from its motherland, it remained Albanian in its nature and essence, due to messages and aspirations conveyed by romantic heroes. However, because of the fact that evolved in association with the Italian literature, it cultivated peculiar features, as well.

## RESULTS

In his book, "Girolamo De Rada – literary work and life" Jup Kastrati states; the liaison with the Albanian folklore was very important for De Rada. He was imbued with the artistic flavor of our people. So, in his literary work he used the metrics of the Albanian colloquial literature and didn't imitate the Italian literature metrics. "Songs of Milosao" were a product of the Albanian beautiful folk songs, consequence of our country's wonderful nature and his first love" (Kastarti, 1962, p. 4).



**Figure 1: Jacobson's scheme for the language models**

*Source: completed by author*

De Rada has been presented in the grade 10 textbook of high school with the epic-lyrical poem "The Songs of Milosao". Initially we are introducing the graphical presentation of this literary work by four publishing houses in *Table 1*. In order to understand communicative functions and make their interpretations in the literary work, students are oriented to communication elements which are introduced by means of the Jacobson's scheme, (made known since the elementary school). Jacobson's scheme for the language models distinguishes six elements or factors of communication which are necessary for making the latter possible: (1) *the sender* is the speaker or writer producing the message; (2) *the code* is the linguistic system by means of which the message has been produced; (3) *the message* is the spoken word(s) or the linguistic written text(s) produced and based on the rules of the code; (4) *the context* to the one the message has been referred to; (5) *the channel/contact* physical and natural means permitting transmission of the material; (6) *the receiver* (a listener or reader) taking and interpreting the message (Shkurta, 2009, p. 262).

**Table 1**

### "The Songs of Milosao" by four publishing houses

ALBAS	Subject of the poem according to verses (from I - XXX)	The plot of the literary work associated with various lines from the poem	Ideas and motives
Analysis "Songs of Milosao"	Study and analysis of the text	Song I	The conflict
Structure	The meaning essence of the poem: love as an everlasting life	Song II	Narration structures
Motif of Love	The spiritual dimension of this literary work and its poetics	Song III	Characters
The patriotic motif	<i>For illustration</i>	Song IV	The art of the poem
Ideas	Beginning of verse VIII	<i>After each song is the feature:</i>	Nature
Organization of characters	Verse X	In the text labyrinth	Song I
Nature	Verse XIV	It is the only publication in which the "Song of Sraphine" has been presented	Song II
Language and metrics	The tragic of life and confrontation with the heaven for illustration	The plot of the literary work associated with various lines from the poem	Song V
<i>Illustrations with the lines</i>	Lines from verse XXX		Song XVI
Song I – Verse I	Verse XVIII		Song XXII
Song V – Verse V	Verse XXV		Song XXX
Song VI	Verse XXIV		After the presentation of each song follows the feature; Text Study
Song XX	Verse XV		Song XVI
Song XXX	Compositional structure and the stylistics of the poem.		Song XXII
After the presentation of each song follows the feature; Text Study			Song XXX
			After the presentation of each song follows the feature; Text Study
<b>Mediaprint</b>	<b>Pegi</b>	<b>CENTRUM</b> Analysis "Songs of Milosao"	

Source: completed by author

Every factor is the focal point of an oriented link or function, interacting between the message and the factor. This provides six functions: (1) the *referential* function is context oriented (the dominating function in a message); (2) the *emotive* (*expressive*), function is oriented to the speaker, (to the sender); (3) the *cognate* function is oriented to receiver; (4) the *factual* function serves to create, elongate or interrupt communication (or to confirm whether the contact is still available – Hello!); (5) the *meta-linguistic* function is used to create common relationship with the code; (6)

the *poetical* function focuses on the message per se (Jacobson, 1960, p. 356). The six functions are integral part of a literary work. In order to illustrate this fact we are considering and analyzing verses from de Rada's poem "Songs of Milosao" introduced to the high school textbooks.

The *referential function* has been considered as the most essential and the centre of objective communication. In order to see the ways this function has been actualized in "The Songs of Milosao" we are taking *Mediaprint* edition as a reference. In the feature "Text study and analysis" students are faced with the question: What is the significance of the edition of the "Songs of Milosao" both in the literary context of the time it was written as well as for the Albanian literature in general? The poem as a whole conveys the idea that this literary work by De Rada undertook the decisive step of disengaging the Albanian literature from the religious themes and scholastic of the past. With this pearl of the Albanian literature begins the period which has randomly been considered by the Albanian scholars as "Old Albanian Literature" and "Songs of Milosao" and marks the first typical literary work of Albanian romanticism. With "Songs of Milosao" De Rada was the first to nurture the pure lyrical or elegiac-lyric poem, a kind of novelette in verse. In this poem are found the first roots of urban lyrics in the Albanian poetry (Group of authors, *Mediaprint edition*).

*Where does all this delight come from?*

*Embracing my entire being,*

*While undressing innocently before my bed,*

*And waking up merrily in the early dayspring,*

*Just like the maid awoken by the lucky break.*

De Rada's romanticism goes hand to hand with the liberation ideas to make people free as well as with the historical context of the country.

In the edition of the *Albas*, publishing house, while analyzing Song V, we can see the space provided to students to examine the *emotive* function (emotional). Also, after the introduction of Song V in the school textbook, students are encouraged to study the text. This song shows the arrival of the hordes of the Turkish ships and expresses concern for the fates of the country. Moreover, students are urged to make analysis of the meaning stratifications and are even challenged to read between lines, bringing out the idea that Motherland can be saved by the Turkish yoke solely via armed uprising.

*Arberesh, it is high time!*

*For our country to lay down your life,*

*Make the dream come true, why not be sacrificed,*

*Even in front of the family homes!*

Milosao has been considered a leader whom people can trust. Students are encouraged to feel and understand the poet's concern for the leadership of the patriotic movement (Kodra, 1988, p. 61).

In the Pegi edition, after the presentation of Song I, in the feature: "*In the text's labyrinth*" authors lay the following question for discussion:

- describe the euphoric state the poetry rises to readers, commencing from the

evidence of phrases bearing and evoking its pathos;

- colors with which nature has been described in this field of lexis; *azure; the snow; blooded; white; the sea; flower; linen; the sky*. How do they appear in your image, after you have investigated the linguistic means they are expressed with and continue the successive question.

These questions ignite the spark of discussions among students/receivers about the *cognate function* of the language. Students can see the amazing nature of their homeland, unfurled before their eyes, from the subtext of which they can understand the delight of mothers, murmuring their sons' names while walking around house. The scene describes young couples' first dating from the subtext of which they understand the young couples' first love as well as the feeling of the young maid's exhilaration and social differences.

The *factual function* serves to hold communicative channels open, to preserve relations between the receiver and sender. *Centrum* edition reveals the effectuation of this function; the illustrating lines have been translated by Shuteriqi<sup>2</sup>.

The Literature of the Albanian romanticists, part of which is De Rada as well, is distinguished for its selected discourse, wide range of themes, the rich linguistic expressions and its too cultivated style; all these features had their own direct impact to the alleged readers. The channel by means of which the "Songs of Milosao" reach readers is the book per se, the poem written in lines, in Arbereshi and Italian languages. This poem has masterly been translated by Dhimitër Shuteriqi and Andrea Varfi<sup>3</sup>, aiming to bring this wonderful literary work of the Albanian Romanticism to modern readers of literature.

While still referring to *Albas* edition, we will see how students can analyze the *meta-linguistic function*. They are incited to reflect on the language and the style effectuated by De Rada in 1836, analyzing the stylistic role of the warning signs, rhetoric questions, metaphors, epithets, and exclamatory and find out that, the poetical world of De Rada is the synthesis and subtext of poetics, the poetics of rummage of the human spirit and breathtaking figuration.

*My thoughts and yet, my heart,  
Why are you winging to the sea?  
Ships whiten the vast blue surface,  
And then hid away in eternity...*

Consideration of the Adam's scheme regarding speech and stating that, the notion itself is wider than the notion of text, which made him successful among a great number of scholars, brings forth the following:

Speech = Text + Production Conditions.

Nasufi comes to the conclusion that production conditions stand for the specific and various conditions of communication in which texts take shape. These conditions are closely related with the speaker, with specifics of the language it has been written in or conveyed by as well as with the social context the text has been produced... The linguistic elements of the text are interwoven with each-other and

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<sup>2</sup> Dhimitër Shuteriqi (1915-2003) was an Albanian scholar, literary historian, philologist and writer.

<sup>3</sup> Andrea Varfi (1914-1982), Albanian writer and scholar.

create mutuality. Precisely this mutuality realizes the grammar and lexical cohesion. In order to express the *poetical function*, the relationship of the message with itself we are referring to the edition of the "Songs of Milosao" by publishing house *Mediaprint*. In the plot of De Rada, events take little space. More importance has been paid to the inner world of heroes, feelings, principles and their drama. Right at the first song, tender feelings of love have been experienced:

*Hence, Lumbardha of Anacreon,  
Who lived for a long time in the temple?  
Never frozen by the chill of the blizzard,  
The tip of spear couldn't smear her with blood.*

The character of Lumbardha, the symbol of love, comes to the window of Milosao to waken his feelings of the sublime love, feelings that were never faded by time and the years. The presence of nature in this literary work corresponds to the creative concept of the poet. Love cohabits with nature, the beauty, the innocent sincerity, its greatness as well as with its gracious placidity in the poem as a whole, expressed by messages of affection for nature, for life and homeland (Group of authors, *Mediaprint*). The literary work has also been conducted by the subterranean message that there is no personal happiness while Homeland is under the foreign yoke. The following lines serve to understand this:

*We will die for sure,  
Hence I hope we won't languish  
In front of our family houses,  
And under the soil be cast into oblivion.*

Ideas of liberation from the invaders and nostalgia for the homeland "beyond the sea", was the binomial on which the Arbereshi literature was created.

*For God's sake, my heart, forbear,  
As Snowy Mountain stands to blizzard's tear!*

This is what De Rada would intonate in 1836 in his famous poem "Songs of Milosao", a work which marks the beginning of Arbereshi and Albanian romanticism in general.

## CONCLUSIONS

Literature is a form of communication. The communicative functions of literature stand on the fact that, both the written and spoken literature address to certain and unpredictable masses of public. Literary communication coincides with the general scheme of the linguistic communication, yet in a more complicated way. After studying the *referential function* of communication (presented by "The Albanian Language and Literature 10", edition of *Mediaprint*), we conclude that in his poem "Songs of Milosao", De Rada cast the decisive step forward to disengage the Albanian Literature from the religion terms and the scholastics of the past. De Rada's romanticism goes hand in hand with the peoples' liberation ideas.

The *emotive function* of communication (presented by "The Albanian Language and Literature 10", edition of *Albas*), incites students to analyze meaning stratifications, to understand what is meant among lines about the idea of patriotism.

*Arberesh, it's high time!*

The *cognate function* of communication (presented by "The Albanian Language

and Literature 10", edition of Pegi), reveals that the use of a rich lexicon promotes student to see the wonderful nature unfurled before their eyes, from the subtext of which is meant the joy of motherhood:

*Just as the joy the eyes show,  
She woke me while singing a tune,  
We were in our motherland,  
And my mother called me in Albanian.*

The *factual function* of communication (presented by "The Albanian Language and Literature 10", Centrum edition), aims to keep the channels of communication open as well as preserves relations between the sender and the receiver. De Rada's literary work is distinguished for its selected discourse, the wide thematic range, rich linguistic expression as well as the much cultivated style, which had a direct effect upon readers.

In the *Albas* edition, students reflect about the language and style used by De Rada in 1836 and can analyze the *meta-linguistic function*. By analyzing style, warning signs, the rhetoric questions, metaphors, epithets, and exclamatory expressions, it is emphasized that the poetical world of De Rada is the poetics of synthesis and subtext, the poetics of rummage of the human spirit and breathtaking figuration.

The poetical function, the relations of the message with itself (presented in the edition of Mediaprint), has been realized by giving importance to the inner spiritual world of heroes, feelings, principles and their dramas.

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# LITERAL VARIATIONS OF THE CONSONANTS /R/ AND /RR/ IN THE TIME FRAME 1996-2016

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**Abstract:** *The aim of our research is the understanding of different ways the Albanian language vibrant phonemes /r/ and /rr/ are actualized in colloquial speech in the time frame of twenty years, 1996-2016. The study was centered on the variations of the two Albanian language phonemes /r/ and /rr/ in different levels of speech in Albanian language. Since colloquial speech has been the main focus of the study, the basis of the research were the different ways the Albanian vibrant consonants are actualized in the spoken language of some towns in the South of Albania, such as, Korca, Berat, Vlora and Tirana (capital city of Albania). The field research was guided by the study principles of urban dialectology and the factual information was collected by canvassing. The questionnaire contained open-ended questions entailing that interviewees would render desired information; in general their responses provided the required words, mainly those containing phoneme /rr/, in its initial or subvocal position. In order to be effective in achieving our intention we chose these Albanian language words; birra, gorricë, arra, rrap, Durrës, racë. The interviewer asked the question orally while listening attentively the pronunciation of the vibrant phonemes in the premeditated word.*

**Keywords:** *standard, pairs in the system, contrasting /r-rr/, literal and ideal variations*

## INTRODUCTION

The object of this writing is studying the different ways the two Albanian language vibrant phonemes /r/ and /rr/ are actualized and pronounced. The study covers a time frame of twenty-years, from 1996 to 2016. It is crucial to accentuate that these phonemes contrast each-other by one single feature, the number of flaps, so it is very likely that they can be interchangeable in spoken language.

## MATERIALS AND METHODS

The issues considered to this regard are related to the realization of these phonemes in different colloquial levels of the Albanian language, focusing mainly on colloquial speech. Hence, the basis of the research has been the different ways vibrant consonants are used in some towns of the South of Albania, such as Korça, Berat, Vlora and Tirana as the capital city of Albania. The field research was guided by the study principles of urban dialectology and the factual information was collected by canvassing. The questionnaire contained open-ended questions making interviewees render desired information; their responses provided the required information, suchlike words containing the phoneme /rr/, in its initial or sub vocal position. In order to reach this aim we chose these Albanian language

words; *birra, gorricë, arra, rrap, Durrës, racë*<sup>4</sup>. The interviewer asked the question orally while listening the pronunciation of the trilling phoneme in the premeditated word carefully. In the respective column of the questionnaire, it is written /r/ or /rr/, (*please refer to the model questionnaire at the end of this writing*). If it were possible, other information was obtained and recorded in the respective columns of the questionnaire, such as the interviewee's age, education, occupation, origin and gender.

In order to get data best suiting to the literal pronunciation of these phonemes, we managed to make a pre-selection of the interviewees, with an even dispersion between age and gender. This is the way we have operated in determining samples, (the concept has been taken from A. Varvaro)<sup>5</sup>.

The obtained data revealed issues which have been crucial objects of study for Sociolinguistics.

Phonemes /r/ and /rr/ do not always function as two different phonemes in Albanian Language and their alternation, (usually rr > r), can make a distinguishing feature for speakers or groups of speakers.

We were actuated to undertake this type of research by the studies of foreign authors, such as, W. Labov, who, in addition to his many research studies in New York, realized even an oriented research about variations in pronouncing phoneme /r/ among the city dwellers. Also, in Italy, Galli dè Paratesi, organized research studies relating to the pronunciation of the geminate /rr/ by the youth in Rome<sup>6</sup>.

Vibrant consonants exist in other languages, too mainly as distinguishing feature in colloquial speech, while they are in use in some cases, in other cases they are not used (alternation of r > rr in English), somewhere else the contrast has been missing (alternation rr > r in Italian language). We too have intended to use oriented research, consistent with Labov's instance and methods.

Labov collected factual information and/or data by canvassing them in public places. For variations of /r/, he investigated supermarkets where he could meet people from different strata of the society. By playing the un-oriented guy, he asked where the sector selling flowers is. Responses involve words like "flower", "fourth" and "floor". Regarding the use of rhotic consonant in written language (in which the norm is imposed), the issues to be discussed are totally different; we have to discuss about the issues related to the linguistic norm and stylistic values obtained by rhetoric potential of the vibrant phonemes in the Albanian language.

In order to adjust spelling of rolling phonemes in Albanian language, a set of spelling rules have been determined in the book entitled "*The Orthography of the Albanian Language*". Issues highlighted in that book, as well, focus on the alternation of the rolling phonemes. Words deriving from foreign languages and having a /rr/ in original seem to be the most elusive.

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<sup>4</sup> Albanian in original; respectively meaning, beer, wild pear, nuts, plane tree, Durres (Albanian coastal city) and race, in English.

<sup>5</sup> Labov, W. (1966), *The stratification of English in New York City*, Washington (according to Varvaro, p. 82 and Berrutos: *Fondamenti di sociolinguistica*, Laterza, Bari, 1995, p. 160).

<sup>6</sup> Galli de Paratesi (1984), *Lingua toscana in bocca ambrosiana*. Tendenze verso l'italiano standard: un'inchiesta sociolinguistica, Il Mulino, Bologna (sipas Berrutos, fq. 160).

## RESULTS

Since we are referring to the standard Albanian language, these phonemes do not consist in variables but they comprise a pair in its linguistic system. Bearing in mind the fact that there are differences between the sounds of living, spoken and ever changing language and the ones frozen into the standard language, the variations encountered will be divided and conventionally termed into literal variations and ideal variations.

Studies of such kind have been inconsiderable in the Albanian language. In these terms, our research makes a contribution into solving certain issues related to the topic, which has been a challenge on its own. On the other hand, variations in pronouncing rhotic consonant /r/ could not be object of a particular research. However, linguists have been highlighting important facts related to the issue, especially the most obvious ones.

While looking into the Albanian linguistic bibliography we found assertions making a significant contribution to this regard. The most important matter linked to the subject under consideration is the findings and conclusions by dialectologists.

In his work, "The Albanian Dialectology", Jorgji Gjinari wrote that in the present-day speech of the Korca and Berat District areas, phoneme /rr/ was not encountered. For these reasons this variant of speech makes up a separate dialectal area of the Albanian language<sup>7</sup>.

In his other work "*Dialects of the Albanian language*" the same author asserts that phoneme /rr/ was unknown in the vernacular speech of the earlier dwellers of almost all cities of the South of Albania<sup>8</sup>.

This assertion shows clearly that we are in a new phase of the dialectal studies of the Albanian language. Our Dialectology is, presently, showing its interest even for the dialects of the population in the cities which had previously been excluded as objects of dialectological studies. Such a tendency has been seen even in Europe (*please refer to Varvaro*)<sup>9</sup>.

The book "Introduction to linguistics" maintains; to this regard, the inclination noticed in the speech of the residents of our cities relating to the issues of dropping or contrasting /r-rr/, cannot simply be explained with the fact that speakers first get aware of this rapport and then pass into the practical aspect of its usage. Here the term "practical aspect of its usage", entails the realized speech, the vivid variant of the Albanian language (moreover, the interest for the spoken language).

Like it was previously mentioned, our observation was focused on some cities of Southern Albania, in the time-frame 1996-2016. The following is what we noticed in 1996: We find it reasonable to emphasize that canvassing was accomplished with casual citizens. It took place in the Town market since there were more possibilities to realize what we intended. In Korca town the number of interviewees amounted to 70. The question addressed to the interviewees was drafted to entail the word "birrë" in response. The 70 individuals interviewed in total were separated as in the

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<sup>7</sup> Gjinari, J. (1988), *Dialectology of the Albanian Language*, Tirana, Albania.

<sup>8</sup> Gjinari, J. (1989), *Dialects of the Albanian Language*, Tirana, Albania.

<sup>9</sup> Varvaro, A. (1978), *Works*, cited.

following: 45 individuals used phoneme /r/ whereas the remaining 25 people used phoneme /rr/; expressed in percentage, 64% of the interviewees used /r/ and the 36% remaining ones used /rr/. Out of 29 interviewed females, the number of those using /r/ was 19, whereas the others used /rr/. In percentage, 65% of the females used /r/ and 35% used /rr/. The 26 interviewed males used the trilling phoneme /r/ whereas the remaining 15 used /rr/; in percentage, 63% of the interviewed males used /r/ and 37% of them used /rr/.

There is, surprisingly, no distinction in the use of phoneme /rr/ between females and males. This implies, in our opinion, that it is a dialectal feature being used by the majority of the Korca town dwellers, regardless of gender.

Females aged 15-22 years old are divided in the following rapport; 80% of respondents used phoneme /r/ whereas 20% used /rr/.

Females aged 26-40 years old appear in an almost equal rapport regarding the frequency of using these two phonemes; 54% used phoneme /r/ whereas 46% used /rr/. Also, for 41-60 years old age group females, there are not any distinguished variations in these terms; 60% used /r/ and the other 40% used /rr/.

As for above, it resulted that females interviewed in Korca town are more prone to use trilling phoneme /r/. The great difference within the first group, might, at a certain extent, be vindicated, in addition to dialectal variations, with the tendency of the young girls to avoid geminate /rr/. This tendency is linked with speech ethics; the use of /r/ by the young girls who are newly located in Korca town, serves to give impression of aptness with the fellow citizens or to be identified as an old resident of the Korca town.

In the other two age groups the difference diminishes. This fact infers a kind of disregard by the older residents.

All in all, we have interviewed 41 males, out of which, as cited above, 26 used phoneme /r/ and 15 used the geminate phoneme /rr/. Age-group divisions reveal the following:

Males of 15-25 years of age: Results obtained by canvassing this group of youth showed that 75% of them used phoneme /r/ whereas only 25% used phoneme /rr/. Therefore, the rapport is 1:3.

As for the 26-40 years old males, the rapport is 1:2, namely, 66% of them used phoneme /r/ and 34 used phoneme /rr/.

If we consider the third group of the interviewees, aged 41-70, it is noticed that the rapport of using both phonemes results to be even narrower; 55% of them used /r/ and 45% used phoneme /rr/.

Basing on the data obtained, it is obvious that even for the youth groups, the rapport of using phonemes /r/ and /rr/ becomes even narrower. Therefore this datum conforms to the data obtained by female groups and once more revealing the fact that there are no distinctions between genders but solely between ages.

While the age increases this rapport diminishes more and more, both for females and for males.

After 20 years, in 2016, 39 people were interviewed in Korca town, asking them questions, which entailed a response with the words "birrë" or "arrë".

The total number of respondents has been divided as the following:

16 interviewees used phoneme /r/ and 23 used phoneme /rr/, therefore, 49% used phoneme /r/ and 59% used phoneme /rr/.

Out of 15 females interviewed, only six of them used phoneme /r/ whereas the other nine respondents used phoneme /rr/, therefore, 40% used phoneme /r/ and 60% used phoneme /rr/.

Out of 24 males interviewed, 10 of them used phoneme /r/ and 14 used phoneme /rr/, namely, 41% used phoneme /r/ and 59% used phoneme /rr/.

In the 2016 interviews (after 20 years), we can see that the rapport of the people using these two phonemes has changed greatly. The number of people using phoneme /rr/ is higher than 20 years ago. The phenomenon is obvious both in males and females. After reconsidering the phenomenon, even based on data by different age-groups of the interviewees, the following was noticed:

Both the 15-25 years old females and males have been divided equally regarding the use of these two phonemes (four of the females use phoneme /r/ and four phoneme /rr/, three males used phoneme /r/ and the same number of males used phoneme /rr/.

This even outcome was encountered even in the 41-70 age-group females (5 of them used phoneme /r/ and 5 and the rest used phoneme /rr/. The middle-aged interviewees, that is, 26-40 years old used more phoneme /rr/ than phoneme /r/. So, after 20 years from the interviews taken at Korca marketplace, we see that citizens are prone to use the standard language and used phoneme /rr/ in such words as "birrë" and "arrë". In Berat Town, the observations were accomplished to the place called "Ura e Gorricës". The question asked was "What is this place called?"

The location of this part of the town, close to the bridge, gave us the possibility to talk to residents from two neighborhoods of the town, called "Gorrice" and one of the Berat quarters, so there was a heterogeneous population.

Data obtained from this town reveal the following results; out of 62 individuals interviewed, 40 were permanent residents (all using phoneme /r/) and 22 individuals were new comers. From the total number of females, 28 of them used phoneme /r/ and only five used phoneme /rr/, (easy to identify new comers!)

Divisions according to age groups, respectively users of the phoneme /r/ and users of the phoneme /rr/, do not reveal anything special. Differences simply show the origin of residents.

Here are the results:

Females of 15-25 years of age:

72 % of the females of this age group used phoneme /r/ and 28% used phoneme /rr/. Therefore, the rapport is 1 to 2.5.

No one of the 26-40 years of age used phoneme /rr/.

The 41-65 age-group interviewees' rapport is 1 to 5, since 83% used phoneme /r/ whereas 17% used phoneme /rr/.

Out of 29 males interviewed, 54% used phoneme /r/ and 46% used phoneme /rr/. Figures reveal that the difference is much smaller in females and this is because males move more frequently.

The conclusions drawn at the end of the observations is that in Berat town, phoneme /rr/ is rarely used than in Korca town and in Berat it does not make sense

searching variation between gender groups or age groups. Distinctions depend on the origin of the speakers. All individuals using phoneme /r/ are residents of Berat town, whereas all those using /rr/ are new comers. This proves J. Gjinari's opinion cited in footnote number four.

Out of 22 new comers to this town, whom we could not manage to interview, only 4 used phoneme /r/, (even here there is a sort of tendency to aptness), all the others used phoneme/rr/.

The situation in Vlora Town is presented as in the following:

Out of 54 interviewees 44 are locals and use both phonemes, in the following rapport: 16% used phoneme /r/ and 84% others used phoneme /rr/.

Grouping them by age reveals the following rapport:

Females of aged 15-25 years old; 37% used phoneme /r/ and 63% used phoneme /rr/. Females of aged 26-40 years old, the rapport of usage of both phonemes is 1 to 2, because 33% used phoneme /r/ and 67% used phoneme /rr/. For the age group 41-60 years old; this rapport is 1 to 1, therefore, out of 8 interviewees, 4 used phoneme /r/ and the remaining 4 used phoneme /rr/. While considering males of 15-25 years of age, the rapport of usage of both phonemes is very different because 15% of the interviewees used /r/ as against 85% using /rr/. Males of 26-40 years old age group appear to have a 1 to 2.5 rapport. Even for 41-70 years old age group males, the rapport is very different; 1 to 8; only 2 used /r/ and 16 others used phoneme /rr/.

Statistics show that males and females used /rr/ more than /r/; however, the difference in using these two phonemes is more obvious in males than females.

In Berat town we came back to "Ura e Gorricës" after 20 years, asking the question "What is this place called", which was directed to 150 people.

Data obtained in 2016 reveal the following results:

Consideration of questionnaires brings us to the conclusion that the use of phoneme /r/ has priority.

Out of 150 individuals interviewed 105 of them used phoneme /r/ and only 45 used phoneme /rr/. While considering divisions in terms of gender, out of 69 interviewed females, 46 used phoneme /r/ and 23 used phoneme /rr/, namely, 67% used phoneme /r/ and 33% used phoneme /rr/. Out of 81 males interviewed, 59 used phoneme /r/ and 22 others used phoneme /rr/, namely, 73% used phoneme /r/ and 27% used phoneme /rr/.

Females of 15-25 age group:

11 of them used phoneme /r/ and only 1 used /rr/ that is 91% used phoneme /r/.

Females of 26-40 age groups:

14 of them used phoneme /r/ and 9 used phoneme /rr/.

That is 61% used phoneme /r/ and 39% used phoneme /rr/.

The 41-70 age group females the situation is the following:

21 females of this age group used phoneme /r/ and 13 other females used phoneme /rr/. In percentage; 62% used phoneme /r/ and 38% used phoneme /rr/.

Males of the age-group 15-25 years of age interviewed:

7 males, originating from Permet, Fier, Kucova, Lushnja, Kozare, used phoneme /r/ whereas only one male used phoneme /rr/.

Consideration of 26-40 years old group males, revealed the following:

14 males used phoneme /r/ and 5 others used phoneme /rr/, namely, 74% used phoneme /r/ and 26% used phoneme /rr/. Even for the age group of 41-70 years old, the difference among users is obvious; 38 males used phoneme /r/ and the other 16 males used phoneme /rr/, that is, 70% used phoneme /r/ and 30% used phoneme /rr/.

At the end of our observations in Berat Town it is noticed that use of phoneme /rr/ is rarer than the use of phoneme /r/. This phenomenon is the same both for the interviewed females and males.

In Vlora town there is a quite different situation to this regard, compared to the situation in the cities being mapped in area No. 2<sup>10</sup>.

In this town, there is no inclination by the younger generation to avert /rr/, as it resulted in Berat and Korca towns and as presented earlier in this writing. It cannot be said that this result conforms the pronunciation norm (there are a lot of deviations); however, in Vlora there is an opposite tendency; even when it is next to another consonant, such as in the words *motrre*, *zembrre*<sup>11</sup> (of course the number of trills is not four, as in the phoneme /rr/ of the standard Albanian language, but there are two to three trills, something between /r/ and /rr/).

The context to this regard in Vlora town, after 20 years, can be described in the following: 50 is the total number of canvassed individuals, out of which 29 females and 21 males, 39 interviewed persons are originally from Vlora and the 11 others are new-comers in the town.

Grouping them by age brought forth the following results:

Females of 15-25 years of age equally used phoneme /r/ and /rr/, therefore, the rapport of usage to this phoneme is 1 to 1. The same phenomenon was encountered even for the age group 41-70 year old respondents. Out of the 26-40 years of age females, solely two of them used phoneme /r/ and eleven used phoneme /rr/; the usage rapport of these two phonemes is very different, 15% used phoneme /r/ and 85% used phoneme /rr/.

The interviewed male respondents in Vlora town, after 20 years, reveal a very different rapport regarding the use of phonemes /r/ and /rr/ for the age group 15-25 years old. Out of 14 respondents interviewed, 3 used phoneme /r/ and 11 used of phoneme /rr/, meaning that 21% used phoneme /r/ and 79% used of phoneme /rr/.

For the other two age-groups, respectively 26-40 years old and 41-70 years old, we found an even use of phoneme /r/ and /rr/. The rapport of usage of these phonemes, for both age groups, is even, 1 to 1.

It is to be mentioned that the interviews taken in Vlora town after 20 years show that residents of this town continue to use phoneme /rr/ more than phoneme /r/, although not in the frequency and rapport they used it in 1996. 20 years later it is noticed that females of age group 15-25 years old are inclined to avert the use of phoneme /rr/, so tending to respect the Albanian language standard. Tirana has a very heterogeneous population, which has also been tested even by the canvassing data. Out of 78 interviewees 38 are locally originated and 40 are new comers. Out of the total, 15 individuals used phoneme /r/ and 63 used phoneme /rr/.

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<sup>10</sup> Gjinar, J. (1988-1989), cited works, p. 56.

<sup>11</sup> Albanian in original, respectively meaning *sister* and *heart* in English.

Out of 32 females interviewed, 14 used phoneme /r/ and 18 used phoneme /rr/.

Statistical data show that females of 15-25 years of age are inclined to use phoneme /r/ more, therefore, 8 of them used phoneme /r/ and 3 used phoneme /rr/. In addition, females of the two other age groups, namely 26-40 and 41-65 years old, are inclined to use phoneme /rr/. There is a slight tendency to avert phoneme /rr/ in initial or sub-vocal position, always for ethics or refined speaking.

Out of 46 males interviewed, only 6 used phoneme /r/ whereas the remaining 40 used phoneme /rr/. Statistical data reveal that for the three age groups, the rapport of using these two phonemes is very diverse; 1 to 11 in favor of /rr/ for 15-25 age group males; 1 to 6 in favor of /rr/ for the 26-40 age group males and yet 1 to 8 for the males of 41-70 years of age.

According to the data obtained and processed it does not seem that males of Tirana city are inclined into averting /rr/.

We came back for interviews to the capital city of Albania, Tirana, at "Rruga e Durrësit" and noticed that, in the course of these 20 years, the population has become more heterogeneous and diversified in terms of origin.

Out of 126 interviewed individuals, 92 are new comers in Tirana, and 34 are locally originated. Out of a total of 14 individuals, 14 used phoneme /r/ and 112 used phoneme /rr/, or, 11% used phoneme /r/ and 89% used phoneme /rr/. Out of 66 females interviewed, 10 used phoneme /r/ and 56 others used phoneme /rr/.

Statistical data from these interviews reveal that females of all age groups are inclined to use phoneme /rr/ in a very diverse rapport with phoneme /r/. 14% of 15-25 years old age groups used phoneme /r/ and 86% used phoneme /rr/. 21% of 26-40 years old age groups used phoneme /r/ and 79 % used phoneme /rr/. Age groups 41-70 used phoneme /r/ in 10% of them and phoneme /rr/ in 90%. Out of 60 interviewed males, only 4 of them used phoneme /r/, whereas 56 others used phoneme /rr/. 14% of the 15-25 age group males used phoneme /r/ whereas 86% of them used phoneme /rr/. 11% of the 26-40 age group males used phoneme /r/ whereas 89% of them used phoneme /rr/. 100% of the males of the 41-70 years old age group used phoneme /rr/.

Bearing in mind that the questions were drafted in the way that made the interviewers use, in their response, the Albanian language words "rrugë" and "Durrës", we noticed that the interviewees of both genders and all age groups are inclined to use the standardized language, that is, in our case, the use of phoneme /rr/.

## CONCLUSIONS

The phonetic feature of the Albanian language vibrant consonants and the types of contrasts they create with each-other as well as with the other phonemes of the Albanian language, provide great possibilities to consider phonemes /r/ and /rr/ as variables in studies over the varying nature of the language and the literal variations encountered in the realization of the colloquial language.

Linguistic variations that can be realized by these variables have a dialectal and social nature. From the interviews carried out in 1996, in dialectal point of view, the Berat and Korça colloquial speech is distinguished for constant using of phoneme

/r/, whereas, on the other hand, the Vlora town area constantly used phoneme /rr/. In social point of view, variations were also encountered between groups of different genders as well as between different age groups. So, the 15-25 year old speakers living in Korca town, devoid of gender distinctions are distinguished for their inclination to avert phoneme /rr/. This inclination has also been noticed in Tirana as well, but only by the females of this age group. The idea that youth attend certain trends takes shape, since, while they grow up the rapport of using /r/ and /rr/ changes to the favor of the latter one.

In Berat area, variations do not affect age but the origin. In Berat, locally originated residents, in their carefree colloquial speech, almost do not use /rr/ at all. All speakers using /rr/ resulted to be new comers.

In Tirana, speakers who have been living for a long time in the urban area are inclined to use /r/ and the new comers are inclined to respect the linguistic norm.

At meantime, interviews taken in 2016, (in a 20 year time frame), in Korca, reveal that there have been changes in the rappings among individuals using these two phonemes. The number of respondents using phoneme /rr/ is higher than it was 20 years ago. The facts are true both for the female and male groups.

Statistical data obtained from the interviews of Vlora town show that males and females use phoneme /rr/ more than /r/. Still 26-40 years old age groups are inclined to apply the standardized linguistic norm.

Demographic movement within the country has had a great impact in the use of the Albanian language vibrant consonants /r/ and /rr/ in the spoken language, in different rappings and cities.

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# "SCRIBING" AS A METHOD OF TRAINING OF A GENERAL EDUCATIONAL INSTITUTION'S FUTURE LEADER TO REFLEXIVE MANAGEMENT

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**Abstract:** *The article deals with the problem of using "scribing" method in the process of training of a future head of an educational institution at the magistracy of a pedagogical University. Attention is drawn to the fact that this "scribing" method is a powerful reflective technology into which the mechanism of reflection is integrated, the mechanisms of transition from internal to external activities and vice versa, questions of reflexive activities' objectification and its provision in the form of charts, tables, and pictures are considered.*

**Keywords:** *scribing, reflection, reflection mechanism, stopping, fixing, awareness, reflective turn*

## INTRODUCTION

The reform of secondary school depends on the level of training of pedagogical staff, especially of school leaders. The school management is the most popular one, it takes into account all the factors that affect the school and defines the direction of modern transformations in education. This increases the importance of professional training of educational institutions' heads and, *as a result*, their willingness to implement managerial functions based on socio-pedagogical conditions of the school. The analysis of training problems of secondary schools' heads leads to the conclusion that this problem is still insufficiently developed in the pedagogical science. So the above mentioned issue is relevant for the study. The change of educational paradigm from the cognitive to the reflexive one requires scientists' search for new methods of future school leaders' training to meet the modern needs.

## MATERIALS AND METHODS

Theoretical and methodological aspects of modern professional training of educational institutions heads in Ukraine are highlighted in the researchers works of L. Vasylenko, H. Yelnykova, V. Pikel'na, E. Khrikova, V. Fedorova et al.

The analysis of problems of professional competence formation of schools' heads is important for our research which is considered in the works by T. Volobueva (self-educational activity of the head), H. Yelnykova, R. Vdovychenko (managerial competence of a school head), L. Danylenko (training of a secondary educational institution's head), T. Sorochan (methodological recommendations for professionalism development of the management activity of secondary schools' heads in the system of postgraduate pedagogical education), future managers in the

training process), N. Vasylenko (training of an educational institution's head to innovative activity), L. Voznyuk (development of the management culture of a secondary educational institution's head), O. Kapitanets (development of professional and pedagogical creativity of future managers), V. Bereka (theoretical and methodical bases of managers' training).

One of the modern means of future leaders' training in Master degree studies of a pedagogical university is the "scribing" method, which was invented by the British artist Andrew Park and was first applied in the educational process by the American teacher Paul Bogush.

*The aim of the article* is the identification of specific features of the "scribing" method's application in the process of future leaders of comprehensive educational institution training to reflexive management.

## RESULTS

"Scribing" (from the English *scribe*, sketching or drawing) is one of the modern technologies' methods, which combined with storytelling creates a powerful method of future school leaders' training of reflexive management. The main feature of "scribing" is that reflexive processes are the basis of it.

The process of "scribing" would be like "the effect of a parallel route", when we hear and see approximately the same thing, while the graphic number is fixed on the key aspects of audio track. Now "scribing" is an innovative technology which can be used to attract the audience's attention, to provide it with additional information and to highlight the main points of the report.

There are two main types of "scribing": facilitation and video scribing, but the most important for the process of future managers of educational institutions training, in our opinion, is "scribing-facilitation". Therefore, we will consider this kind of method. "Scribing" is a transfer of information from verbal text to visual form and its recording in real-time that brings the listener a visual association with spoken language and provides a high percentage of information's assimilation. Graphic facilitation is, first of all, the art to display the words in the images, when this process is happening in real time, almost parallel to oral speech. Creating vivid images brings the listener a visual association with spoken language that provides a high percentage of information's assimilation.

Implementation of the "scribing" method depends on the skills and abilities of a student. The phased deployment of the method is in the process of reflection, in the moment of the factors' actions that are synthesized in the methods and are connected with the individual operations. This ensures moving of the method through the regulation and control of the activity, its logic is given.

"Scribing" is a method of training undergraduates, a powerful mechanism of reflexive skills' formation and reflexive mechanisms' learning. Using the "scribing", a student learns the skills of problem situations' solving, is aware of the need of knowledge and application of reflection in the professional activity. In the process of "scribing" there's an interaction between subjects of the activity that leads to their development through reflection. It is oriented to the desired future

and necessarily defines the perspective, allows creating a relationship between the past and present through reflexive processes. Consider how the reflexive process is integrated in the "scribing" method.

"Scribing" method has its own algorithm which coincides with the reflection mechanism, namely: stopping, fixing, removal, objectification, rotation or this mechanism may be divided into 3 stages: pre-stage (stopping, specifies characteristics of the linking of reflection with thinking) and reflective stage (fixation, yield in a reflective position, alienation, objectification as testing of the personal position of the plan, the option of entering the reflection results into the space of thinking), self-reflexive stage (reflective rotation, reflection on reflection seems to return to the past in the reflective stage. The means of rotation is a positive and negative double connection). This is a scheme of interrelated processes that occur in the unity of a single act as a transition from the level of activity into the plane of thinking. This transition gives opportunity to consider the reflection not in itself, but in the system of thought and action, where the starting process of the stop sets the connection characteristics of reflection and thinking.

Human consciousness in the process of activity divides into two, actually becomes the centaur-system (artificial and natural), in the minds the subject of direct action and the subject that controls this activity conditionally appear.

"Activity is always the centaur system, that is a system that functions and takes place due to simultaneous actions and combination of natural and artificial mechanisms" [4; 8] In this case, the subject of the activity is natural, and the subject of control is artificial. These two subjects continuously interact and coordinate their activities (sense of activity, subject of activity), but each of them at the same time has its own trajectory of movement, because any activity is a movement.

The interaction of the subject with the surrounding world is always associated with movement, which is directed to the external object and cannot occur by itself, it is always carried out in accordance with a purpose. Motion system to the object with the purpose of its conversion is an action as a process of changes in qualities of any object in accordance with a specific purpose and a set of actions, linked by the common goal, is an activity of the subject. Thus we can say that the activity is inextricably linked to the movement and action, so the following triad has the right to existence: activity – action – motion. In the process of interaction of the subject activity with the subject of control, the first leaves an imprint of the realized actions on the trajectory of the other one, which in turn compares it in correspondence with a perfect process, or coordinates it. The coordinated sense and subject of activities, create a single object field that indicates the coherence between the subjects: "Single object field provides mutual understanding between subjects of activities and all the different meanings taken from different positions should be joined to it" [9]. This consistency is a process of adaptation to the conditions that exist, without this final part the joining of the meanings to a single object field is impossible. The lack of consistency between the senses of the subject activities signals about the impossibility of a single object field creating. The problem situation occurs, i.e. "gap" in the activity, no correspondence between the goals and possibilities of the subject, i.e. the conditions that generate the problem.

The conditions of the problem are the objective contradictions arising between different actions, particularly because of ignorance of the ways or lack of means for its implementation. In such conditions the reflection of the projected movement of the activity subject on the trajectory of the subject's control actually stops, then the activity loses its schematic characteristics as the absolute coordination of actions i.e. characterized by internal coherence and is achieved by many times repetitions, attempts to solve the problem using the existing tools that turn to be ineffective and the activity stops. In addition, the stop is preceded by a very specific feeling of confusion. Confusion arises only in the case when a person feels that the situation is unusual. This feeling is not long, but the fact that in a moment of surprise our mind becomes like empty plays an important role, all the processes of thinking, as to a certain activity, stop. The main function of confusion is to prepare for effective interaction with the new, with the event that has suddenly arisen and with its consequences; termination of actions, not relevant to the current situation and hinder the adaptation to it; to search for new algorithms of solving the situation. In the process of confusion, in fact, there is a cessation of mental activity [10; 11].

Thus, in accordance with the principles of the centaur system, the external (natural) and interior (artificial) activity stop. All of the abovementioned processes and senses of confusion may be called pre-reflexive or the forerunners of a reflexive process start; the very first step is stop. "It is important to understand that the stop is on a different plane than the activity. In relation to one another, they are perpendicular. The effect of the stop is related to the plane, which controls the specific patterns of action. Stop is not a reflection, but one of the conditions that leads to the implementation of reflection". Stop allows you to work with parts of the projection, with the stopped movement; any "stop" section may be presented structurally. "We are starting to segment it into stages and phases, but for this we have to find and fix the imprints in this process" [7].

The stopped action must somehow be restricted in order to have a possibility to separate one action from another. Therefore after the activity has stopped, the process of fixation takes place, which in most cases is intermittent and acts as guidance. "Fixation as well as the stop of action is different in management nature. It is not included in the schematic steps of fixing, does not belong to it, because it's directed to the singling out of the partial border of this sketchiness, and in this sense it controls this sketchiness" [1].

In the process of fixing the analysis of the previous activities and their results, making of judgments about their progress take place. Then, relations between items, unknown in the past that composed and created the activities' process become the main ones. Without fixing the subject does not have and may not have any necessity in the knowledge and understanding of the activities' processes. Fixing implements the subject's relation to the object of reflection. This is fixing that implements the dichotomy, the polarization of the reflective process and leads to the greater awareness of the problem. Stop and fixing are the basis for the awareness (objectification). In the basis of moving to a reflective position there is the need, first, to go beyond the usual activities, since it's impossible to carry them any longer, and secondly, to go beyond representation and understanding of the personal activities.

This position is associated with the rejection of the usual, natural self-understanding and understanding of the activities, it's impossible to perform and imagine a new situation in the activities, based on outdated views about them. In all cases, obtaining a thorough description of the realized activities the subject has to leave his internal position and take a new position as the outside one, both towards the past and towards the future activities that are planned. This movement is called a reflexive exit and the new position of subject as reflexive position. The relationship between the past activity and the activity of the subject in reflexive position develops in such a way that the first activity is absorbed by the second one and it acts as the material for analysis, and future activities become an object of design. Reflective activities and activities which require reflection are not equal and are at different hierarchy levels, they have different objects, different mean of activities, they are served by different types of knowledge. Analysis of the personal actions in the system that exists, restoring of the past design and redesigning of personal future, tracking the causes and possible consequences of the actions are launching the next stage of the reflective process as the process of objectification. The objectification of thought, when we regard it as an object, gives the opportunity to treat it as an object. That is to apply to this object all the means, operations, actions, and methods that we have during the object research [5].

It is the level of reflection that stands usually in the form of own norms and rules. Objectification is a reflection, which is built on the basis of the logical principle of identity, required to regulate the acts of our thoughts. It consists of two points: first, this is the realization in life of what is presented in activity in the form of ideas, plans, etc., secondly, the measurement and evaluation of results, in what volume and quality a certain objective is reached. After one of the activity's segments is objectified there's a need to move to the second, third, etc., until the whole subject of activity is run out. The objectified subject ceases to be the property of a person who created it, it is alienated, loses personality, becomes an objective fact, and it can perform any operations not only by an owner, but by all subjects of the activities as well. The characteristic feature for the objectification is that the object always acts as a whole. In the process of fixing we can fix any time, any important element, and in the process of objectification the action itself is represented as a whole. Objectification is a central process in the mechanism of reflection. Yu. Gromyko describes objectification as a reflexive action (a set of procedures, techniques) allowing transfer of the "internal" processes of consciousness, thinking and understanding into the structure of objects, their activity content [2].

The next stage is reflective rotational when going of a reflection subject back into the practical action. The subject returns to the initial situation, but with new views and understanding of the activities. The reflexive process as a complete act of consciousness can be fixed in any symbolic form, because the sign refers to and replaces some already defined object of activity that exists independently of it. A modeling on the sign material allows to single out this attribute, as the following "projection imprint" of the object, which is essentially a process of constructing the object. Reflection allows to fix the moment of transition from semantic structures of

consciousness to the sign ones (diagrams, drawings, projects, etc.) Reflection is actually a form of subjective activity. From this point of view, the process of reflection gives an opportunity to delegate external activities to the other ones. Reflective rotation is a transition from understanding the processes of activities (internal aspect) to performing the activities (external aspect). This is the ratio of own goals in the specific activities and personal actions aimed at achieving the goals. Rotation causes the collision of what the subject does with what he wants to do and how he is doing this. It is necessary to stress that reflection movement is cyclical in nature and many times repetitions occur.

"Scribing" method is based on the above mentioned reflection mechanism, it can be divided into several stages: before-reflexive, reflexive and over-reflexive.

*Over-reflexive stage:* Any educational text, story, or report has its beginning and its end, if in the process of storytelling the student finds himself in the problem situation after the end of the report, then in the process of "scribing" there is always a need to carry out the reflective activity and pass it a few times.

The essence of this method lies in the fact that an undergraduate in the online system, not only tells about the training material, but also accompanies it with the necessary pictures, schemes and drawings. The importance of this method lies in the fact that the story (verbal communication) does not always give possibility to understand whether this process is automatic without understanding what the report is about, whether the student understands what he is saying. This confidence is based on the following: external speech involves a person in social interaction, at the same time, inner speech protects from other people's interference, it's understood only by a subject of activity and only feels his control. External speech is coded with its own codes understandable to others, at the same time, the code of inner speech is used along with the same language, as external speech, but its external manifestation is hidden from others and cannot be understood. At different stages of inner speech depths the following things are used: images, diagrams, representations of the concept, which are actually a code of thinking. Inner speech is verbalized thinking. "In its essence, human thought would be able to work without any verbal elements, but verbal elements connect thinking with the outside world, the society, solution of external tasks of an individual and social plan". Inner speech actually serves external speech and all human actions as well. Through inner speech there is a cognitive process: internal awareness builds communication, verbalizes concepts, makes constructions of definitions, and logical operations are performed. One of the main roles of inner speech is preparation of external speech, oral and written statements, their internal programming. Thus inner speech actually expresses the opinion, and "modeling" on the sign material allows to highlight this attribute, as the following "projection imprint" of the object, which is essentially a process of constructing the object.

By using reflection and its mechanism it becomes possible to understand the way of an undergraduate's thinking while solving a particular problem and through discussion to make the necessary adjustments and correct errors. To do this, it is possible to use the method of "scribing". The method itself can be divided into several stages: the first relates to a pre-reflexive activity, the second to a reflexive activity,

and the third, self-reflexive, is connected with returning to past activities, but with new means of problems solving.

*Before-reflexive stage:* At this stage, an undergraduate makes a report; his speech is conditionally divided into a few key points. Each key point may be recognized as the final stage. After the end of the story at each stage there's an undergraduate has a task to visualize this story in the form of a diagram, drawing or a picture. Thus, he is faced with the necessity of objectifying the course of his thinking to transform the internal speech into the outside world, show images and schemes which he used in the process of thinking. To do this a reflexive process and the knowledge of its mechanisms help. At the before-reflexive stage there appear some skills of stop of his external and internal activities, manifestation of the ability to understand the need that in order to perform this or that process you should stop it because the activity which continues its own movement is not a subject for analysis, it is not possible to make it a priori. After activities' stopping the *reflective stage* comes. Before the undergraduate there is a need to fix a stopped activity. In the process of "scribing" the narrator's fixing happens in the following way: he defines the stopped segment of a story and analyses the course of previous activities and their results, expresses judgments about their progress, but so far he uses only verbal means, and he faces a challenge to visualize the progress of his own process of thinking. At this time, he comes to such an understanding, that those means which he used are in the past and in the position where he is now, it's not possible to do this. If he only uses the external language later on, it will not be possible to build a diagram or a figure. So, it is necessary to leave the language process and to take a different position in relation to its own activities. The new position of considering its own activities will be a reflective position, and the exit from it will be a reflective exit. Prior to this, the subject of activity (an undergraduate) was a direct participant of the process, then after going to a reflective position in relation to the previous activities, he becomes an independent observer, as if opposing himself in the past to himself in the present, so, there is the process of removal. The undergraduate obtains an opportunity to objectify an alienated thought, because it becomes the object of his and the activities of others, and it is possible to use all the means, methods that he has, the ability to transform to the external world the internal images in the form of drawings, sketches and the like, to visualize the structure of thought and its course. The appearance of schemes, drawings enables others to understand the idea, work with it, make adjustments, correct while discussing the errors. Thus the idea becomes a shared object of activity.

*Over-reflexive stage* is a stage of reflection on a reflection, at this stage, the process of reflexive rotation is taking place when a student relates his purpose in certain activities and private actions aimed at achieving the goal, makes a transition from understanding the processes to their accomplishing, new schematic activities are born, the student receives knowledge and skills: transfer of internal activities into external activities and vice versa, understanding of the processes of alienation and objectification, knowledge of the need to move to a reflective position when confronted with problems. Reflection is cyclical in nature and a lot of many-times repetitions happen, so the student again makes a transition into the plane of external activity and

continues his speech until the next key moment where there's the need to use reflection mechanisms again. Reflective rotation is a transition from understanding of the processes (internal aspect) to performing of activities (external aspect).

Thus, there is a directed self-development of a narrator in the process of interaction through reflection, which is called reflective management.

## CONCLUSIONS

Advantages of using "scribing" in the process of future school leaders training in master's studies of a pedagogical university are the following: formation of management knowledge culture, values, rules, fundamentals of leadership in undergraduates, the ability to achieve strategic goals; effective motivation and training management of students; increase of students' communication skills; creating a positive image of the head of the institution (control of the problem, crisis periods in the learning process of undergraduates, reducing resistance to changes, increase of management efficiency). "Scribing" can be defined as the science and art. It combines pedagogical, psychological and management aspects, it is a powerful reflective tool for the student's personality development; the method of reflexive management that initiates the directed self-development of subjects through reflection.

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# LINGUODIDACTIC ASPECT OF TEACHING ENGLISH AS A FOREIGN LANGUAGE

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**Abstract:** *The article considers linguodidactic aspect of teaching English as a foreign language. It states that language acquisition is effective due to the implementation of traditional and culturally-based approaches, principles and methods focused on retention of language and cultural material.*

**Keywords:** *linguodidactic foundations, competency, approach, principle, method*

## INTRODUCTION

English is an international language which is official in 54 countries and native for about 370 mln people. It plays a key role in Ukrainian-speaking society, as it is an important mode of information transmitting through media on the global stage and a mediator during the experience exchange between foreign partners. Hence Ukraine has faced a problem of correct comprehension and reproduction of English-language information that demands clarification of linguodidactic aspect of teaching the English. New requirements to teaching a foreign language in society include the development of linguodidactic foundations, which are aimed at forming discursive, sociolinguistic, communicative, linguistic, grammatical, lexical, socio-cultural competencies.

## MATERIALS AND METHODS

The ideas of the scientists (N. Halskova, E. Dianova, O. Jespersen, P. Kaikkonen, K. Kremsh, R. Lado, G. Neuner, R. Oxford, V. Safonova, Ch. Fries, M. Hammer et al) contributed to the determination of linguodidactic foundations during the English language teaching in a way that facilitates the definition of approaches, principles and methods of teaching English as a foreign language.

The important factor in language acquisition and achievement of learning objectives is determination of approaches, which Z. Bakum, O. Bystrova, V. Kapinos, S. Lvova interpret as principal strategic directions which cover objective, tasks and contents, ways of their reaching, interaction between a professor and a student, indicators for teaching and learning outcomes, types of control [3, p. 40].

Language communicative acquisition at different stages of foreign language learning enables the implementation of lexical, system, structural, communicative and activity, integrated approaches. Absence of cultural framework is compensated for by the feasibility of culturally-based approaches (linguistic and cultural studies, linguoculturological, socio-cultural, intercultural, and cross-cultural). The use of the latter in modern polycultural educational space is expedient, as they consider not only structural components of the education process (target, stimulating, motivational, substantial) but intercultural differences of representatives with different cultural backgrounds (verbal, non-verbal, paraverbal) to avoid discommodity, barriers or

conflicts and develop rapport and mutual assistance between members of distinctive cultures during their dialogue. Having analyzed a number of papers, dedicated to elaboration and execution of culturally-based approaches to foreign language teaching, we define key provisions, which they are based on: 1) focus on dialogue establishment in polycultural society through command of language and cultural awareness; 2) admission of culture uniqueness and its reflection in linguistic units; 3) availability of verbal, non-verbal and cultural differences, which, if taken into consideration, prevent the creation of language and cultural barriers; 4) awareness of discrepancy in the translation of definite language phenomena from a native tongue to a foreign one. Implementation of teaching approaches is provided with principles as original statements that formulate requirements to educational process and its constituents: objectives, tasks, methods, means, organizational forms, teaching and learning activities [4].

In modern linguodidactics one typically determines common didactic and methodic principles. The first group reflects key ideas of education and teaching. We appeal to a group of common didactic principles, defined by Z. Bakum, O. Bilaiev, M. Vashulenko, O. Horoshkina, V. Doroz, S. Karaman, M. Pentyliuk of scientific orientation, consciousness, systematicity and consistency, combining theory and practice, accessibility, succession and perspectivity, visibility [1]. Methodical principles that ascertain specifics of foreign language teaching were investigated by B. Hlukhov, A. Arutiunova, Ye. Vereshchagin, V. Kostomarov, A. Myroliubov, I. Rakhmanov, Yu. Passov, S. Shatilov, A. Shchukin. In English language teaching we consider such important principles: communicativeness (important part is assigned to communication with a view to building dialogical speech in unintended situations), approximation (ignores mistakes that don't embarrass communication, don't impede information uptake), consideration of students' native tongue (fixes difficulties of translation from maternal language to English and vice versa, prevents interference), cultural collaborative learning (focuses on language phenomena study simultaneously with cross-cultural information for adequate translation of culture-specific linguistic units and introduction of English-speaking countries cultural background), language contrastive analysis (implies contrast of native tongue and culture with foreign ones, clarification of predominantly distinctive features, which hinder from correct data comprehension and reproduction), concentric material organization (involves reiteration of previously learned material at a new level, with its subsequent complexity and expansion), text-centrism (assimilation and automation of lexical and grammar skills, monological and dialogical abilities on a text basis, etc.). Embodiment of any teaching principle is possible due to a proper selection of methods from professor's and students' joint activity, aimed at mastering linguistic knowledge, abilities and skills and cognitive activity arrangement by means of the subject [2].

We determined the methods, which are the effective in terms of cross-cultural competency forming: direct, audio-lingual, method of reading, conscious-contrastive, conscious-practical. The peculiarity of direct method (M. Berlitz, Sh. Schweitzer, F. Gouin, O. Yespersen.), i.e. it excludes a students' mother tongue and translation from the latter and foreign language, whereas its key task is practical language acquisition in oral form. Thanks to this method a deep immersion of a Ukrainian-speaking student

into English speaking environment is under way. Within the audio-lingual method framework (R. Lado, Ch. Fries) multiple audio listening and language structure practicing are provided. It leads to their automation. The use of the method of reading (O. Bond, E. Eddi, A. Coleman, M. West, L. Fossett, I. Framont) empowers speech activity intensification, since a student is involved into discussion; forms a feel for the language through exercising, which helps to remove a mother tongue impact. The application of the conscious-contrastive method (L. Shcherba, L. Vyhotskyi, O. Luriia, P. Halperin, O. Zaporozhets, O. Leontiev, S. Rubinshtein) involves students' comprehension of linguistic phenomena before their studying; their mastering through the comparison of similar and distinctive features of both languages for eliciting translation problems. Within the boundaries of the conscious-practical method (B. Beliaiev) primary focus is on conscious mastering of lexical units, rules of their use and transfer to practical communicative situations, so that students gain communication experience with native speakers in natural language environment.

### CONCLUSIONS

The abovementioned linguodidactic foundations of teaching English as a foreign language, which include lexical, system, structural, communicative and activity, integrated and culturally-based approaches (linguistic and cultural studies, linguo-culturological, socio-cultural, intercultural, cross-cultural); common didactic and methodical principles: of communicativeness, approximation, consideration of students' native tongue, cultural collaborative learning, language contrastive analysis, concentric material organization, text-centrism); methods: direct, audio-lingual, method of reading, conscious-contrastive, conscious-practical, are oriented toward the establishment of the cohesiveness of language, speech and cultural constituents; give subsequence and consistency to material presentation.

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# THE USE OF A HIGHER MATHEMATICS ELECTRONIC INSTRUCTIONAL AND METHODOLOGICAL PACKAGE WITHIN INCLUSIVE LEARNING ENVIRONMENT

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**Abstract:** *The article shows the need for developing a higher mathematics electronic instructional and methodological package for students with special needs. Structural elements of the above package have been described. The distinctive features of each of them have been identified. The purpose of creating a higher mathematics electronic instructional and methodological package is to ensure the formation of mathematical competence of inclusive groups' students. The efficiency of the package developed has been corroborated by the experimental data. The article may be interesting for teachers of institutions of higher education with inclusive learning framework.*

**Keywords:** *electronic instructional and methodological package, inclusive learning, student with special needs, higher mathematics, learning*

## INTRODUCTION

At the present stage of the education development in Ukraine, the problem of acquiring higher education by persons with disabilities is becoming ever more important. The research done by scientists demonstrates that, when enrolling into higher education institutions and while studying there, young physically impaired Ukrainians encounter various kinds of difficulties [1-5]. Among them are the lack of proper educational and methodological support as well as software and information one, the lack of special equipment, the insufficient level of training for specialists working with the said category of students and architectural inaccessibility of buildings and classrooms. The teaching process is often carried out without the health peculiarities of students being taken into account, and is not distinct by its high efficiency. All that encourages teachers to find new ways to solve the problem outlined. The implementation of inclusive learning pertains to the main trends of the development of the modern educational practices. The inclusive learning is increasingly recognized as the most optimal and promising learning model for persons with special needs. One of the conditions of the efficient organization of the inclusive learning, of physical and mathematical disciplines in particular, for physically impaired students is the application of the electronic instructional and methodological package (EIMP).

## MATERIALS AND METHODS

The study is based on the use of a set of techniques. Among them are the study and analysis of the state of problem of inclusive learning organization for physically

impaired students; synthesis method, which is the basis for the creation of the electronic instructional and methodological package that takes into account the teaching of physically impaired students in the inclusive environment; systematization and generalization of theoretical and empirical data regarding the education of persons with special needs; teacher observations, questionnaire surveys, individual interviews with students, and the analysis of the students' performance.

## RESULTS

The EIMP developed covers two branches of the higher mathematics, viz. "Linear and Vector Algebra" and "Analytical Geometry". The package contains a working curriculum, theoretical information on each subject, teaching materials for practical classes, self-guided work tasks for students, selection of practice-tailored mathematical problems, glossary reference book, the Microsoft Power Point and Smart Notebook electronic teaching aids, materials for the summary academic test paper, an electronic library to match the subjects in question, a guide on the EIMP use, etc. Most of the EIMP items are available on the <https://matematyka.gnomio.com> website.

At the beginning of each subject, a plan of its study is presented. Theoretical information is accompanied by the self-check questions that make it possible to determine the level of assimilation of the material studied.

Teaching materials for practical learning include tasks to be solved in class and those for homework. The level of difficulty increases with each task. Besides the main tasks, additional ones were selected that can be offered to students with a high level of knowledge for self-guided solution. The problem solutions are also available in a separate portion of the material. Such kind of separation allows students with a higher level of knowledge to work in a self-guided manner, faster than others, turning to ready-made solutions only as a self-check measure. For students with a lower level of knowledge or for students with special needs, the availability of ready-made solutions facilitates understanding of the solution procedure and the substance of the task at hand, etc. Thus, each student can work at an individual pace, as it best suits his/her capabilities. Therefore, the realization of the principle of individualization and differentiation of learning comes about.

The EIMP contains self-study work items for students. Each of those items involves 8 variants. They can be used both to check the level of mastering a particular subject and to exercise in a self-supporting manner acquiring certain practical skills. In order to implement the principle of professional orientation of learning, practice-tailored mathematical problems have been selected, based on the assumed knowledge by the students of relevant subjects. The EIMP contains examples of solving such problems while problems for self-guided solution are presented separately.

The electronic teaching demonstration materials (Power Point presentations) are based on theoretical information used for lectures. Above all, they should be used by the students during the self-study of educational material. The presentations do not contain examples of how to solve problems, but rather contribute to illustrating the educational information. The material is divided into logically complete parts, each of which is incorporated into a separate slide. Some mathematical information

is presented as charts and summary tables. Many presentation objects are accompanied by animation effects allowing students to focus on the key elements of an image, to visually highlight important parts of the text (e.g. formulas, rules, theorem statements) and to understand the sequence of certain actions, etc.

All presentations are made in the same style. Calm colors predominate, high contrast text and background (mainly black lettering on a white background) are maintained and sufficient size sans serif fonts are used that are easily perceived when seen on the screen. Principal concepts and theorems are in bold type.

Presentations contain tasks of the research nature. Specifically, students are asked to find out a relationship between the position of mathematical objects on the plane (in space) and the coefficient values of relevant equations. A system of instructions has been elaborated to perform research tasks. It should be noted that an Internet connection is required for some of the tasks to be performed.

The Smart Notebook electronic materials are expedient to be used as a support for workshops, which provides the possibility of duplication of teacher's oral explanations by the written ones, of the writings on the whiteboard by the printed ones, helps to reduce the amount of mechanical work by the teacher and students, etc.

Using the Smart Board technology, a system of oral tasks has been developed for updating students' basic knowledge. The Smart Notebook electronic teaching materials package is a kind of electronic workbook. It has a number of advantages as compared to a printed one: the possibility of zooming the page; the possibility of making additional records and explanations and removing them later without changing the main text; the possibility of moving items and mathematical objects; the possibility of simultaneously displaying two consecutive pages (e.g. a solution and the explanation thereto or a solution and the verification thereof); the possibility of covering a portion of the information by a "veil" and then making that portion seen on the screen again at a certain stage of the learning process, etc. The efficiency of mastering by the students of the proposed higher mathematics subjects can be verified by conducting a summary test consisting of theoretical and practical parts. The summary test is set out in two versions. Both the theoretical and the practical part is complete with tables, which graphically illustrate the scoring system for each correctly performed task and the relations between scores gained and grades received.

All the EIMP items are represented by way of a hierarchical structure. Access to each of them is done through the "Content" tool and a system of hyperlinks. The representation of all teaching materials electronically ensures the possibility of editing text according to the needs of students. In particular, that applies to font resizing, re-coloring, re-contrasting, restyling, etc. The higher mathematics EIMP for teaching students with health disorders has certain distinctive features. Firstly, it is worth noting the EIMP's flexibility that lies in ensuring the possibility of operating it remotely at a convenient time for the student, e.g. when working through the learning material. Secondly, the development of the EIMP is based on the principle of universal design, which allows for a possible adaptation of the appearance of teaching material to the specific needs and abilities of students. Thirdly,

the EIMP can provide distance learning framework for physically impaired students, since health problems for such students can hinder the latter's systematic attendance of classes. The experimental research has been conducted using the facilities of the State Higher Educational Institution "Kryvyi Rih National University", Kremenchuk Mykhaylo Ostrogradskyi National University, Kryvyi Rih Metallurgical Institute of the National Metallurgical Academy of Ukraine and the National Metallurgical Academy of Ukraine. The research involved 38 students with special needs. The results of the experimental work provide evidence of the efficiency of the higher mathematics inclusive learning process by students with special needs, that process being based on the use of the electronic instructional and methodological package developed.

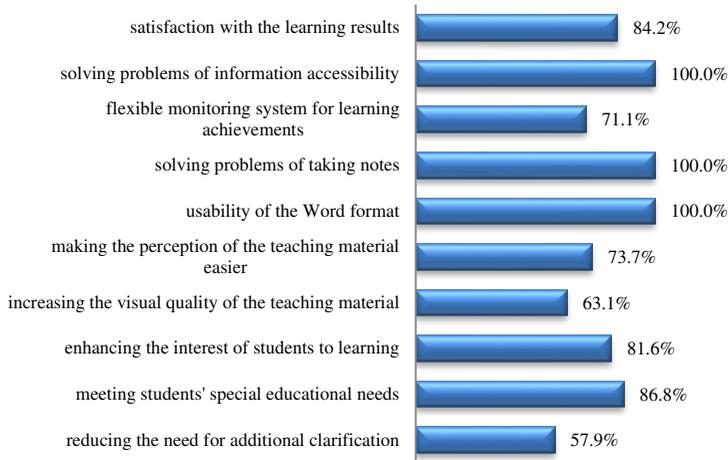
Thus, at the end of the experiment, not a single student admitted to having difficulties with taking notes of the teaching material in class, so that problem can be considered fully solved. 57.9% of students noted a decrease in the need for additional explanations by the teacher. 86.8% of students say that most of their special educational needs were met. According to the students polled, the use of information and communication technologies (ICTs) in higher mathematics classes enhances the interest in learning (81.6%), increases the visual quality of the teaching material (63.2%), and makes the perception of that material easier (73.7%). Only one student (2.6%) said that the ICTs do not affect the learning process. Not a single student has expressed a negative attitude to the application of the ICTs in the higher mathematics learning process. As for the difficulties finding information materials to prepare oneself for higher mathematics classes, all students gave a negative answer. 71.1% of students consider the higher mathematics learning achievements monitoring system flexible enough. 84.2% of students are satisfied with their higher mathematics learning results (They note the emergence of interest in learning, the desire to acquire new knowledge, the fact that the perception and understanding of the teaching material have become easier through its presentation in graphic form, etc.) 15.8% of them are partially satisfied. The results submitted are graphically represented as a linear diagram (*Figure 1*).

## DISCUSSION AND CONCLUSION

As can be seen from the above, the use of the higher mathematics EIMP for the inclusive learning by physically impaired students provides them with the full access to information sources and educational information; helps illustrate educational information and therefore assimilate scientific facts by the students in a more profound manner; makes it possible to manage the information flow highlighting the most important and complicated items of the educational material; creates opportunities to take into account students' special educational needs in substantial measure, etc.

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**Figure 1: The students' opinions percentage-wise on the use of the electronic instructional and methodological package**

Source: created by author

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# CONTEXTUAL EDUCATION AS A MEANS OF THE FUTURE TEACHERS TRAINING TO INNOVATIVE PEDAGOGICAL ACTIVITY

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**Abstract:** *In this article we analyzed the features of the training of future teachers to innovative pedagogical activity; identified the possibilities of contextual education application in pedagogical institutions; considered the survey results of the beginning teachers of secondary and vocational schools; defined a number of innovative forms, methods and technologies for implementing the contextual education system that allow combining educational, quasi professional and educational-professional activity, such as: design and usage of electronic educational resources, electronic teaching methods; engaging students into self-educational activity by means of Web services; fulfillment of individual and group projects based on Web and Blog-quests in which the online learning in the context of future professional activity takes place. Examples of their development and usage in educational process are shown.*

**Keywords:** *contextual education, innovative pedagogical activity, future teachers, web quest*

## INTRODUCTION

European integration of Ukraine leads to modernization of the education system that involves changing and improving all its components: structure, content, means, technology and ways to assess the knowledge and so on.

The two important pedagogical issues form the basis of innovative processes in education. The first one is the studying, generalization and distribution of advanced pedagogical experience and the second is the introduction of achievements of psychologists and teachers in practice. The result of innovations is the use of theoretical and practical innovations, as well as those that are formed at the boundary of theory and practice. The teacher may be the author, researcher, user and promoter of new educational technologies, theories and concepts because the design of educational technologies is the research activity concerning optimal didactic conditions development for maximum realization of the students' creative potential and productivity of training by comparing traditional and innovative approaches to their combination. In this regard, there is a need to find approaches to education aimed at the future professional activity. In our opinion, these requirements fully meet the contextual approach that provides consistent, continuous and systematic formation of future teachers' readiness for innovative teaching activities.

## MATERIALS AND METHODS

The development of modern education requires the new means and technologies of teachers' preparation for the future professional activity on the basis of pedagogical

achievements and practice. Recent decades researches outline the structure, patterns of functioning and development of innovative processes in educational systems (V. Kurylo, V. Palamarchuk, I. Pidlasyy V. Pinchuk, M. Potashnyk, I. Prokopenko, O. Saranov, N. Yusufbekova et al); researches of social and cultural issues of innovative activity that focus on the subjects of innovative transformations (C. Rogers, M. Podymov M. Potashnyk A. Prygozhyn, F. Yusupov et al); substantiation of structure, content and results of innovative activities in education (K. Anhelovski, L. Burkova, L. Danylenko, N. Klokar, Y. Maksymov, A. Nain et al); theoretical and methodological foundations of teachers' preparation for innovative activity (V. Dokuchaeva, O. Kozlov, K. Makahon, L. Podymova, T. Ponimanska, R. Skulskyy et al). Considering the formation of coherent, creative, productive thinking personality, scientists identify the new approaches to the organization and implementation of the educational process in the Universities, and to learning technologies. Problem-based learning plays an important role in this process, and continues the students' organization during the learning context (A. Verbitskiy, 1991).

## RESULTS

The wide dissemination of innovations leads to changes in the teachers training system to future professional activities. The main objective of higher pedagogical education is to prepare teachers who have developed personal and professional skills, able to implement innovative pedagogical activity. Solving this problem requires organization of the focused future teachers training to innovative pedagogical activity in terms of higher pedagogical education conditions, promoting their professional and personal formation, the formation of innovative capacity and innovative culture. We have defined that the innovative pedagogical activity is a complex set of different by objectives and nature types of work that meets basic stages of development and innovation processes aimed at creating and making changes into teacher's own work system. It consists of the development, distribution or usage the educational innovations has a complex, multifunctional character, combines scientific, technological and organizational measures. Innovative activity is a systemic activity aimed at implementing the innovation through the usage and application of new scientific knowledge, ideas and approaches.

The main aim of university lecturer is to attract students into solving objective contradictions and developing scientific knowledge. Of course, this contributes to students' thinking, stimulates their cognitive activity. In the process of the research, the scientists defined the following issues: forming the motivation within contextual education (N. Bakshayeva, 2001); integration of emotional and business components of students' educational interaction in the process of contextual education (T. Lenenko, 1993); activation of cognitive activity of future specialists in the process of contextual education (B. Cherkashyn, 1998); building of the contextual model of professional education (A. Grigorenko, 2001); learning the forms and methods of contextual education within natural-scientific disciplines (O. Larionova, 2006); development and implementation the technology of contextual education for philology students during their professional university training (S. Chernitsyna, 2003); training of the

teachers based on competency approach in terms of contextual education (V. Hotinh, 2008); preparation of future elementary school teachers for teaching junior pupils (S. Skvortsova, J. Hayevets, 2013).

Contextual education concept was developed by A. Verbitskiy in 1991. The teaching material was supplied in the form of educational texts as signs systems (hence the "semantic-context" education, or simply, contextual education) and similar with traditional education, was presented as information for learning. "Mastering abstract knowledge and sign systems is connected with future career, but while studying, they (students) are not dealing with a piece of information but with situations where knowledge as well as the conditions of its usage are set" (A. Verbitskiy, 1999). Substantive and social content of future students' career is consistently designed in the contextual education by means of the entire system of forms, methods and means of education (traditional and new). Knowledge, skills, experience are presented not in the form of a subject, where student's activity should be directed, but as a means of solving the problems of future professional activity (A. Verbitskiy, 2011). In other words, any knowledge and skills are not abstract, but have concrete professional nature and practically-oriented focus. The analysis of researches and private teaching experience confirmed that contextual education is an dynamic model of future teachers training to innovative pedagogical activity, starting from learning activity (lectures, seminars) through quasi-professional (projective, playing, problem studying, modeling, web quests, blog quests, creating real teaching situations) and educational (practical and laboratory classes, different kinds of practices, research activity) to innovative pedagogical activity through reproduction of real professional situations, that provides "immersion in innovation learning environment" through mechanisms of self-programming and self-fulfillment.

Considering the fact that some models of learning form additional contexts and have secondary importance in the system of contextual education spaces, it is recommended to carry out training of future teachers in an integrated educational system (combining educational, quasi professional, educational and professional activities) and not in its separate elements, as far as a high level of readiness for innovative pedagogical activity, formation of individual pedagogical style shows the final result of the work. During the experimental work we have identified a number of innovative technologies that allow combining educational, quasi-professional and vocational activities.

1) *Development, fulfillment and usage of e-learning resources, electronic teaching complexes.*

The main aim of training the future teachers to innovative pedagogical activity is the formation of professional knowledge, abilities and skills of thinking, independent search and solution of professional issues, critical analysis and decision-making. Solution of these issues is almost impossible without the use of information and communication technologies (ICT).

Electronic educational resources, e-learning complexes are considered as additional teaching tools, integrated into the educational process of pedagogical universities aimed at collecting, organizing, storing, processing, transmission and presentation

of educational and other information that allows organizing educational and professional students' work. These special features include: adaptability; interactivity; visualization of educational information; development of intellectual capacity; systemic and structural-functional connectivity of educational material presentation; integrity and continuity of didactic cycle.

It was proved experimentally that the structure of electronic teaching methods should include: training materials (annotation, training and working program); teaching materials (lectures, laboratory and practical works, seminars, dictionary, teacher's blogs, students' works, etc.); knowledge control (tests, assessment criteria, tasks for individual work, exam questions, etc.); literature (primary, secondary, online resources) ([http://ito.vspu.net/ENK/2015-2016/vstup\\_pub/index.html](http://ito.vspu.net/ENK/2015-2016/vstup_pub/index.html)). All elements of the complex are interconnected, have the same information base and are developed not only according to the chosen teaching methods but within a single concept of professional training of future teachers to innovative pedagogical activity.

Thus, e-learning resources, electronic teaching complexes should be considered as an integrated system, which is a knowledge pool that is constantly filled and developed in a particular subject area and includes a set of teaching tools and materials, integrates teaching software products, databases and knowledge that provide and maintain training technology selected by the teacher. These resources allow university teachers realizing an integrated training technology through information component and achieving objectives of future teachers' education.

*2) Involvement of students to individual educational activity by means of Web servers.*

Short (by historical standards) period of Web services existence showed their demand by increasing number of users, and this forces the development of Web-oriented concepts and technologies. It is experimentally determined that the usage benefits of Web services in the context of future innovation teachers' activity are: 1) search for information by means of public free resources; 2) collective project activity; 3) fulfillment of psychological trainings, role and business games, simulations of professional situations; 4) work in blogs. The blog (web log) (online journal or diary of events) is a website that consists of records, images or media, that are regularly added. According to the author's content, blogs can be personal (e.g. teachers' blog <http://iito123.blogspot.com>, student's blog <http://hudognijsvit.blogspot.com>), group (e.g. team's blog <http://vspuimpte.blogspot.com>) or public (open). The blog's peculiarity is the possibility to post responses (comments) by visitors.

We believe that education by means of web servers facilitates learning through contextually new experience. Teachers could not be just teachers as previously, they have to learn constantly. In the field of Web education the students who train teachers are as important as the teachers who teach their students. But the role and responsibility of teaching does not end there. Instead of the education system that prepares students for a particular role, Web 3.0 education system teaches students who create content (content entrepreneurs) for lifelong learning (lifelong learners).

*3) Fulfillment of the individual and group projects based on Web and Blog-quests where the online learning in the context of future professional activity takes place.* Today there are many pedagogical technologies that provide individual

students' work. The need for processing and transmission of large volumes of information requires different pedagogical technologies integration, using Internet. In the process of teaching the future teachers for innovative teaching activity, the research work of students is of great importance, and that's why the integration of methods using the Internet and role playing games is noteworthy. This type of project is called Web quests. If Web quest is developed in blog it is often called blog quests (<http://romantizm-v-ulturi.blogspot.com/>; <http://chiclafibonachi.blogspot.com>).

The Web-quest concept was developed in the US at the University of San Diego in the mid-90s of the 20<sup>th</sup> century by professors B. Dodge (1997) and T. Marchi (1998). The Web-quest is a reference-oriented activity during which the whole or partial information is obtained from the Internet resources; if necessary it is supplemented by videoconference (B. Dodge, 1995-1997).

In pedagogy the Web-quest is the problematic issue with role-playing elements to perform which the Internet resources are used (T. March, 1998).

In our opinion "Web quests are mini projects based on searching information online. Due to this constructive learning approach, students will not only look for information obtained from the Internet, but also govern their activities at defined tasks" (L. Shevchenko, 2011, p. 72).

Generalization of the developed approaches to the organization and structure of web quests allowed us determining its optimal structure: 1) Introduction; 2) Objectives; 3) Resources (links); 4) The process of implementation; 5) Evaluation; 6) Teachers' page. The experience of developing web quests is very interesting. In addition to these components it includes methodological support (program, calendar and thematic planning, outlines, etc.).

The experimental work has confirmed that the best results are achieved when a student or a group of students are not just working on web quest, but are developing it in accordance with the specific topic of the curriculum: formulate goals and objectives, make a list of roles, information sources according to the chosen role; personal plan of searching information on the topic; explore information resources; select artifacts; draw up a report in presentations, publications, lectures, etc.; discuss issues; represent common task solutions; assess the fulfillment the tasks in accordance with the developed criteria; formulate conclusions. The experience of developing and using web quests showed that teachers can constantly replenish and update educational materials, and students can intensify their activity, increase interest in a certain topic, develop not only theoretical and practical knowledge, but also necessary pedagogical qualities as the ability to analyze and select educational material; capacity for management activity, collective decision-making skills, social interaction, leadership, subordination etc. The level of individual work and computer skills are improved. Work on web quest forms the team-working skills and promotes communicative and socio-cultural competence of future teachers.

Thus, the web quest combines the ideas of project methods and modeling quasi professional situations in web environment, connecting and combining different information resources in new ways. The basis of web quests is the project method focused on the innovative future teachers' activity as individual, pair, group, individual, which is performed for a certain period of time. This method is combined

with group learning approach (cooperative learning). Project activity is the most effective in case it can be combined with the program of discipline, significantly expanding and deepening students' knowledge in the process of web quest work.

### CONCLUSIONS

The training of future teachers to innovative pedagogical activity based on contextual education is provided by connection of all major ways (theoretical, practical and individual) of professional training, consistency in setting and solving educational issues, modeling social and substantive content of professional activity. It is realized through the principles of contextual education (unity of training and education, psycho-pedagogical support of personal inclusion of students into learning activity, design and creation of subject and social contexts of future professional activity, joint productive activity of teachers and students, dialogical communication, importance of the professional content aspects of education, professional positioning, formation of professional identity). It should be mentioned that the issue of training future teachers to innovative pedagogical activity is still not investigated sufficiently, in particular, the following points need further scientific research: an application of innovation both practical and theoretical levels; improving the efficiency and quality of education and training, forming and development of intellectual, creative and competent person; reforming the education, namely: content, methods, forms of educational activity, management of higher education institutions, training aids and services; enrichment the content of professional and practical training disciplines with the system of theoretical knowledge of pedagogical innovation and developing relevant educational and methodological support.

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# THE STATE AND PECULIARITIES OF LEARNING ENGLISH BY STUDENTS OF HANGZHOU NORMAL UNIVERSITY (PEOPLE'S REPUBLIC OF CHINA)

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**Abstract:** *The article presents analysis of the results of the questionnaire survey regarding the state and particularities of learning English by students of Hangzhou Normal University of the People's Republic of China. It is enlightened the types of activities which are used by English teachers in the classroom for motivation students in their learning English, described the types of methods, which are used by teachers in the classroom most often. It is illustrated the full answers of students whether they like the way English teachers teach English at Hangzhou Normal university, outlined which of the activities students have been involved recently or during current academic year. It is detrained what students want their teachers teach (explain) them more on English classes and whether the students would like to improve their English teachers' teaching methods.*

**Keywords:** *English language, teaching English, learning English, teaching methods, communicative method of teaching, questionnaire research, Chinese university*

## INTRODUCTION

In the last two decades or so, economic development in the People's Republic of China has been growing at an astonishing pace and there has been an explosion in commercial, technological and cultural exchanges with other parts of the world. This has given rise to a pressing demand for English proficiency (Hu, 2002b; Liao, 2002; Wu, 2001). Events such as the People's Republic of China's entry into the World Trade Organization and a successful bid for the Olympics, held in 2008, have created more nationwide zeal for learning English.

As in many EFL countries in Asia, the educational system in China is centrally controlled, with the government specifying both the context and methodology of teaching (Liao, 2004).

China has the largest training and testing centre for the International English Language Test System (IELTS) in the world. It also has the largest population of English EFL teachers and English students in the world. Recently, it has been estimated that there are more than 1 billion primary, secondary, and tertiary school EFL students and approximately 300 million people learning English in China (Liu & Teng, 2006). Among these are 500,000 secondary school EFL teachers and 1.5 million primary school EFL teachers (Liao, 2000).

English is a compulsory course mandated by the Chinese Ministry of Education for millions of Chinese students from junior high schools right through to graduate schools. It is required that there are four class hours of ELT a week, 18 weeks a

term, for 12 terms in a high school and four-eight terms in a university. In many regional capital and coastal cities, ELT starts at primary school for four hours a week. On average, a Chinese student would spend 1200 hours learning English at middle school, 380 hours (minimum) in undergraduate study and another 320 hours in post-graduate study (Zhang & Gao, 2001) [1; pp. 4-5].

In spring 2015 we have done a questionnaire research among the students of Hangzhou Normal University. The topic of our research was "The Aspects of Teaching and Learning English at Chinese Universities". In this questionnaire took part 26 first year undergraduate students, 28 third year undergraduate students and 36 graduate students.

## MATERIALS AND METHODS

In our research we used such methods of research as questionnaires of students, and a method of analysis.

## RESULTS

Below we put the students' answers to some questionnaire' questions. Regarding the question "What activities do your English teachers use to motivate you in learning English?" students' answers are presented in *Table 1*.

**Table 1**

### What activities do your English teachers use to motivate you in learning English?

<i>Questions</i>	<i>1 course</i>	<i>3 course</i>	<i>5 course</i>
Do more simulated exam papers	4	17	8
Use more authentic materials (movies, recorded songs etc.)	21	14	26
Organize real life language activities	12	10	12
Do more interesting language games	14	6	6
Give you more encouragement to learn	4	8	10
Create a positive attitude toward language learning	19	10	19
Provide you with effective language learning strategies	8	9	17
Provide better classroom discipline	7	2	5
Other	2	0	2

*Source: researched by author*

1-st course students' answers, who chose "Other" category: 1) "To let us express ourselves in English"; 2) "Learn cultural view of life" 5-th course students' answers, who chose "Other" category: 1) "Let us watch movie clips"; 2) the answer wasn't mention. None of the 3-rd course students chose the category "Other".

As we can see there are many similarities in answers of all three courses to this question. Most of the students in all three courses answered "use more authentic materials (movies, recorded songs etc.)", "create a positive attitude toward language learning" and "organize real life language activities".

Regarding the question "What is the most popular teaching method your English teachers use in their teaching?" students of all the courses gave priority to the communicative method, although we should admit that audio-lingual method has second position in the students' answers of all three courses. Students' answers are presented in *Table 2*.

**Table 2****What is the most popular teaching method your English teachers use?**

<i>Teaching method</i>	<i>1 course</i>	<i>3 course</i>	<i>5 course</i>
Communicative	19	17	26
Grammar-translation	4	7	9
Audio-lingual	8	10	10
Other	0	0	3

*Source: researched by author*

In category "Other" 5 course students specified Academic Reading and TBLT teaching methods. Students' answers to the question "Do you like the way English teachers teach English at your university?" are presented in *Table 3*.

**Table 3****Do you like the way English teachers teach English at your university?**

<i>Answers</i>	<i>1 course</i>	<i>3 course</i>	<i>5 course</i>
Yes	10	8	16
No	2	6	8
Not sure	14	12	12

*Source: researched by author*

Among the reasons why students of the 1-st course do not like or not sure whether they like the way English teachers teach English to their group are: "It's a little traditional and boring", "Some teachers' classes are interesting, while others are not". Among the reasons why they like the English language teachers' teaching style is: "Most of their ways are interesting and effective", "Learn English in different ways, use more authentic materials".

2 students of the 3-rd course did not answer to this question. Among the reasons why students of the 3-rd course answered "do not like" or "not sure" are: 1) "Some are interesting, some are just read texts and explain grammar/words"; 2) "They can't organize activities for the whole class, so when teachers speak or students do presentation, most of the students are doing nothing". Among the reasons why they answered "yes" are: 1) "The teachers are all have their own personalities"; 2) "They create a positive attitude toward language learning". Regarding the 5-th course students, here are some reasons why they do not like or not sure whether they like the teaching style of their teachers: 1) "It is a little traditional and boring", "Some teachers' classes are interesting, while others are not". Among the reasons why they like the English language teachers' teaching style are: "Most of their ways are interesting and effective", "Learn English in different ways, use more authentic materials". Answers to the question "Which of the following activities have you been involved recently or this academic year?" are presented in *Table 4*.

**Table 4****Which of the activities have you been involved recently or this academic year?**

<i>Activities</i>	<i>1 course</i>	<i>3 course</i>	<i>5 course</i>
participating in university language contest	6	4	3
writing research paper	12	13	34
participating in out of the university language test	2	6	4
participating in other extracurricular activities	1	4	9
none of them	7	7	1

*Source: researched by author*

Answers to the question "What do you want your teachers teach (explain) you more on your English classes?" are presented in *Table 5*.

**Table 5**

**What do you want your teachers teach/explain you more on your English classes?**

<i>Expectations</i>	<i>1 course</i>	<i>3 course</i>	<i>5 course</i>
grammar	7	9	1
vocabulary	14	7	2
listening	14	9	7
speaking	16	12	19
reading	10	4	4
writing	17	9	12
cultural issues	13	20	26
socio-cultural issues	8	16	19
linguocultural issues	4	9	8
other	1	1	0
none of it, I am satisfied with everything	0	0	0

*Source: researched by author*

None of the students of the 1-st, 3-rd and 5-th course chose "none of it, I am satisfied with everything" category. One student of the 5-th course did not answer this question totally. 1-st course student's answer on category "Other": "slang"; 3-rd course student's answer on category "Other": "I am not sure, confused".

Answers to the question "Would you like to improve your English teachers teaching methods?" are presented in *Table 6*.

**Table 6**

**Would you like to improve your English teachers' teaching methods?**

<i>Answers</i>	<i>1 course</i>	<i>3 course</i>	<i>5 course</i>
No	17	14	8
Yes	9	15	28

*Source: researched by author*

Those students, who answered "Yes", specified their answers:

*1-st year students:*

1) "To be more specific and interesting"; 2) "They don't know what we really want. They should talk with us and know what we think"; 3) "I don't like the way my teachers hold the class like just reading the book, though the text is really important"; 4) "How to speak fluently and freely"; 5) "More creative"; 6) "My grammar teacher's lecture is kind of boring. I think he should smile more and motivate us more"; 7) "Reading and speaking".

*3-rd year students:*

1) "Training the skills of English teaching"; 2) "Practice your own speaking"; 3) "Teach the teaching courses carefully"; 4) "Give more game"; 5) "Organize activities for the whole class and create more chances for students to speak and reach the native English".

*5-th year students:*

1) "Makes it more motivate"; 2) "Try to design more tasks. Control their time. Use more practical cases"; 3) "Reflection"; 4) "More practices"; 5) "Do more language games to motivate our interests in learning English"; 6) "I don't think I have

learned English very well, and I have a good method to learn it"; 7) "Teachers can engage us in the activity"; 8) "More flexible things rather than academic things"; 9) "Use more authentic materials and be more active"; 10) "More interesting and more efficient give students more chances to speak"; 11) "Teachers can use more authentic materials and teach language in a more dynamic way"; 12) "More practical use for English, more information about foreign culture"; 13) "Train teaching skills"; 14) "Read the Academic paper together with us"; 15) "Use more diversity in pedagogical process, make a teacher and a student more equal"; 16) "More communicate with students"; 17) "Can be more communicative and practical"; 18) "Apply more interesting teaching methods to stimulate our interest"; 19) "Teaching procedures"; 20) "Give students more freedom and assign less homework for self-study"; 21) To have more practice"; 22) "Less presentation"; 23) "Pay more attention to communicating with students"; 24) "Speaking. Classroom activity".

Answers to the question "After graduation the university do you want to work as an English teacher? Specify 3 major reasons for your choice" are presented in *Table 7*.

**Table 7**

**After graduation the university do you want to work as an English teacher?**

<i>Answers</i>	<i>1 course</i>	<i>3 course</i>	<i>5 course</i>
Yes	4	9	32
No	7	10	4
Not sure	15	9	0

*Source: researched by author*

**DISCUSSION AND CONCLUSIONS**

To sum up, there are many similarities in almost all answers of all three courses. For instance, most of the students in all three courses answered that their teachers to motivate them in learning English most often use more authentic materials (movies, recorded songs etc.), often create a positive attitude toward language learning and organize real life language activities. Also students of all the courses regarding the question "What is the most popular teaching method your English teachers use in their teaching?" gave priority to the communicative method.

Students' answers to the question "Do you like the way English teachers teach English at your university?" had a slight difference depending on a course: 1-st, 3-rd and 5-th course students were much indecisive in answering this question: most of the 1-st course students answered "not sure" (14 answers), though there were 10 students, who answered "yes". Similar situation can be traced in answers of the 3-rd course students ("not sure" 12 answers and "yes" 8 answers), however, most of the 5-th course students on the contrary to the 1-st and 3-rd course, tend to like the way English teachers teach English at their university ("yes" 16 answers, "not sure" 12 answers). One more similar characteristic of all three courses over again is their answers to the question "Which of the following activities have you been involved recently or this academic year?" most of them are "writing a research paper".

Answers to the question "What do you want your teachers teach (explain) you more on your English classes?" showed some distinctions among three courses. 1-st

year students want that English teachers explain them more writing (17 answers), speaking (16 answers), vocabulary and listening (14 answers each of both). The answers of the 3-rd and 5-th year students differed from the 1-st year students' answers, but not to great extent: 3-rd year students want that English teachers explain them more cultural issues (20 answers), socio-cultural issues (16 answers) and speaking (12 answers); lastly, the 5-th year students, same as 3-rd year students, gave the first position to cultural issues (26 answers), second position is shared with options speaking and socio-cultural issues (19 answers each of both).

Answers to the question "Would you like to improve your English teachers' teaching methods?" had its dependency: from the 1-st year students to the 5-th year students, answers "No" are declining, while answers "Yes" are increasing. For instance, 1-st year students inclined not to improve their English teachers' teaching methods since most of the students chose "No" (17 answers), and only 9 students chose "Yes". Group of the 3-rd year students divided on a half: one part would like not to improve (14 answers); other part would like to improve (15 answers). Finally, the vast majority of the 5-th year students answered that they would like to improve their English teachers' teaching methods (28 answers) and barely 8 students answered "No".

Answers to the question: "After graduation the university do you want to work as an English teacher?" show a growing or falling tendency in answers depending on a course. For example, only 4 students of the 1-st course want to work as an English teacher, which is the smallest part of the group; meanwhile more than half of the group (15 students) is not sure. 3-rd course students are rather do not want to be English teachers 10 students answered "No", but they also inclined to be not sure as 9 students answered "Yes" and 9 answered "Not sure". Regarding 5-th course students, we can state that almost all students of the group want to be English teachers, only 4 students are not sure. Moreover, none of the students answered that they do not want to work as an English teacher. Among the reasons why they want to be English teachers are the following reasons: "Enjoy teaching", "Enjoy work with kids", "I want to be a teacher", "I like English language", "My major is English".

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# PART II: ACTUAL ISSUES OF MACRO- AND MICROECONOMICS

## SCHLÜSSELQUALIFIKATIONEN DER LEHRKRÄFTE UND ARBEITSRESSOURCEN IN DER REALITÄT DER VIERTEN INDUSTRIEREVOLUTION

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**Abstrakt:** Die neue Smart-Lehrkraft fördert die Identifikation der Lernenden mit der zu unterrichtenden Problematik. Genau deswegen bauen Smart-Lehrkräfte in der Ausbildung die Fähigkeiten der Lernenden auf, implizit deren Wissen und Visionen in die Probleme einzubinden, die vor ihnen stehen. Die Lehrkräfte der Zukunft bzw. die Smart-Lehrer sind kompetent, analytisch, kreativ und offen gegenüber Neuerungen. Sie integrieren ihre Anpassungsfähigkeit gegenüber Veränderungen mit ihrer Anpassungsfähigkeit gegenüber strategischen Bildungsorientierungen, und sie sind zugleich Träger neuer Kulturgüter und Werte.

**Schlüsselwörter:** Lehrkraft, Arbeitsressourcen, Schlüsselqualifikationen, vierte Industrierevolution

### EINLEITUNG

Die Aktualität der vorliegenden Studie ergibt sich heutzutage aus den neuen Formen der Verschmelzung der Technologien in der realen, digitalen und biologischen Welt, die von den Wirtschaftssubjekten eine beschleunigte Führungs-, Produktions- und Technologietransformation verlangt, die nur durch die Weiterentwicklung des Potenzials der Mitarbeiter für die Nutzung neuer Führungsinstrumente, Modelle und Ansätze ermöglicht wird. Das bedingt auch eine qualitativ neue Rolle der Lehrkräfte, die unter den Bedingungen einer weitgehend digitalisierten Welt Folgendes tun müssen: 1) Wissen vermitteln, das die Lernenden oft über das Internet bekommen können; 2) die Fähigkeiten der Lernenden weiterentwickeln, um Krisensituationen zu bewältigen, wenn die Umgebung unbekannt und unsicher ist; 3) die Fähigkeiten der Heranwachsenden entwickeln, um Information zu suchen, zu sammeln und zu bearbeiten, Initiative zu ergreifen, Standpunkte zu vertreten; 4) praktisch orientierte Fachleute auszubilden, durch Einbeziehung der Theorie in praktische Problemfälle, Anwendungsaufgaben und Projekte.

All das macht das gewählte Thema spannend, aktuell und bedeutend und die Ergebnisse der Untersuchung könnten von Bildungsinstitutionen für die Entwicklung ihrer Strategien verwendet werden. Die vierte Industrierevolution führte bereits zu einer zweiten Welle der digitalen Technologien (Bräutigam, P., Klindt, T., 2015) wobei sich nicht nur die mobile Kommunikation und die sozialen Medien wandelten, auch die Cloud-Technologie wurde zu einem nicht mehr wegzudenkenden Teil der

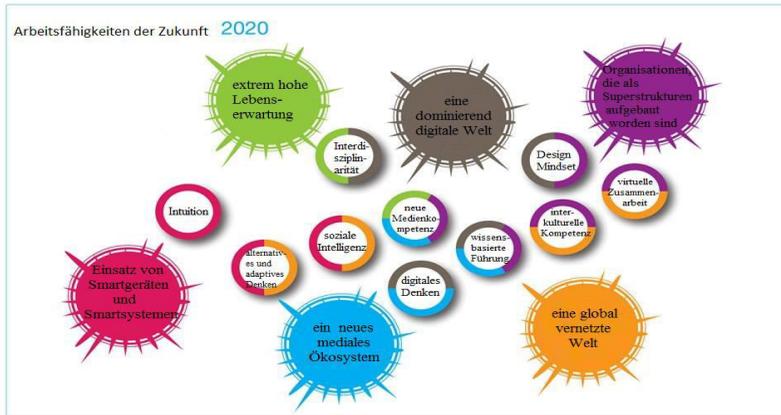
Wirtschaft und des Unternehmertums, dazu kam die virtuelle Auswertung von riesigen Datenmassen, das virtuelle Management und die virtuelle Produktion, das Internet der Dinge, die innovativen Wirtschaftsmodelle, die schon dazu beitragen, dass selbstorganisierte Produktionskomplexe entstehen und die sogenannten "Fabriken der Zukunft" gegründet werden (Bundesministerium für Wirtschaft und Energie, 2017). Am wichtigsten erscheinen die Kommunikationspaare Maschine-Maschine und Maschine-Mensch, die dominanten Technologien Mechatronik, Informatik, Elektronik, Robotik, Sensorik, Biotechnologien, Nanotechnologien, die die hohe Intelligenz von Organisationssystemen und deren Vernetzung ermöglichen, wobei Internetkommunikation und Produktionsprozesse ineinander integriert werden. Die Entwicklung der Produktion im Laufe der vierten Industrierevolution wird bedingt werden durch die Individualisierung der Massenprodukte und die "maßgeschneiderten Produkte", die individuellen Anforderungen, Erwartungen und Wünschen entgegenkommen.

## MATERIAL

**Schlüsselqualifikationen in der Realität der 4. Industrierevolution, die für die Arbeitsressourcen auf dem Arbeitsmarkt notwendig sind:** Die immer deutlicher werdende Vereinigung der digitalen und der materiellen Welt führt zur Generierung von neuen Möglichkeiten in Bezug auf den Nutzwert von Gütern, Produkten und menschlichem Potenzial (Temelkova, 2016). Vor dem Hintergrund dieser wirtschaftlichen Realität, wo der Wettbewerb zwischen Organisationen im nächsten Jahrzehnt immer deutlicher wird, steht vor dem Lehrerberuf die Herausforderung der Integration von theoretischen Kenntnissen und praktischen Fähigkeiten und Lehrkompetenzen, und das sowohl in der realen Wirtschaft, als auch in der virtuellen. Das bedingt die Zielsetzung von langfristigen strategischen Orientierungen durch die Bildungsinstitutionen (Mission, Vision, Ziele und Strategie), die zu Bildungsmodellen führen werden, die den Anforderungen der Industrie 4.0 gewachsen sind.

Die Aktualität der Trends, die mit dem Anfang der vierten Industrierevolution verbunden ist, erfordert die Ausarbeitung eines qualitativ neuen Konzepts über die Schlüsselqualifikationen, die für die Arbeitsressourcen auf dem Arbeitsmarkt notwendig sind. Diese Schlüsselkompetenzen integrieren Korrelationszusammenhänge zwischen grundlegenden Faktoren, die die Entwicklung der gesellschaftlichen und wirtschaftlichen Verhältnisse weitgehend prägen. Laut einer Untersuchung des "Instituts der Zukunft" über die Arbeitsfähigkeiten der Zukunft (Davies, A., Fidler, D., Gorbis, M., 2011) gibt es sechs globale Tendenzen, die die Schlüsselqualifikationen der Mitarbeiter entscheidend unter Industrie 4.0 bestimmen: 1) extrem hohe Lebenserwartung, die in einer Erhöhung der Lebensdauer, in einem Wandel von Karriereabläufen sowie im lebenslangen Lernen Ausdruck findet; 2) eine dominierend digitale Welt, bedingt durch die rasche Vermehrung von Sensoren und Prozessen, die die Welt zu einem System machen, das programmierbar ist; 3) Organisationen, die als Superstrukturen aufgebaut worden sind, die anhand von sozialen Technologien neue Produktionsformen und Formen von Wertschöpfung einleiten; 4) Einsatz von Smartgeräten und Smartsystemen, wobei Arbeitsplätze robotisiert werden, was ein Ende der Praxis setzt, bei der Mitarbeiter ihre Zeit verschwenden und sich

wiederholende eintönige Tätigkeiten verrichten; 5) ein neues mediales Ökosystem, definiert durch neue Kommunikationsinstrumente, die eine neue Mediankompetenz erfordern; 6) eine global vernetzte Welt, in der die wachsende globale Kommunikation die Vielfalt und die Anpassungsfähigkeit in den Mittelpunkt der Anpassungsaktivitäten setzt.



**Abbildung 1: Arbeitsfähigkeiten der Zukunft 2020**

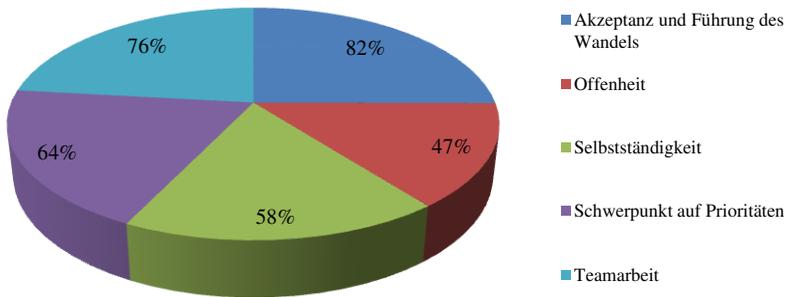
Quelle: Davies, A., Fidler, D., Gorbis, M., 2011

Diese sechs Tendenzen erfordern, dass Mitarbeiter Träger von qualitativ neuen Fähigkeiten und Fertigkeiten sind, um wettbewerbsfähig auf dem Arbeitsmarkt zu sein. Die Untersuchungen deuten darauf hin, dass die zehn Schlüsselarbeitsfähigkeiten in den nächsten 5 Jahren folgende sein werden: 1) Intuition; 2) alternatives und adaptives Denken; 3) soziale Intelligenz; 4) Interdisziplinarität; 5) neue Medienkompetenz; 6) digitales Denken; 7) wissensbasierte Führung; 8) interkulturelle Kompetenz; 9) Design Mindset; 10) virtuelle Zusammenarbeit.

Diese Schlüsselqualifikationen erfordern ein neues Bildungsparadigma, in dem Lehrkräfte diese oben genannten Kompetenzen besitzen müssen, um Fachleute heranzubilden zu können, die den Anforderungen des Arbeitsmarktes entsprechen.

**Umfrageuntersuchung über die Bedürfnisse der Wirtschaft und die Vision der Jugendlichen im Alter bis 18 Jahre über die notwendigen Eigenschaften der Arbeitsressourcen:** Eine Umfrageuntersuchung, die unter 120 Jugendlichen im Alter bis 18 Jahre und 50 Führungskräften in Unternehmen zeigt, welche Anforderungen die Wirtschaft an das Personal stellt und welche Vision Jugendliche über ihre berufliche Orientierung haben.

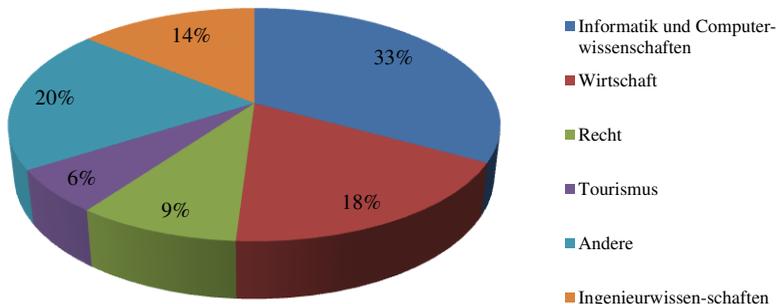
Also zu den fünf für die Führungskräfte in der Wirtschaft wichtigsten Eigenschaften der Mitarbeiter gehören die Fähigkeit den Wandel zu akzeptieren und zu führen, die Offenheit, die Selbstständigkeit, die Teamarbeit, die Fähigkeit, Schwerpunkte zu setzen. Es ist sehr aufschlussreich, dass die Wirtschaft nach Mitarbeitern sucht, die flexibel sind, die die Herausforderungen einer dynamischen Umgebung bewältigen können und für die gemeinsame Sache kämpfen können.



**Abbildung 2: Umfrageergebnisse Untersuchung Führungskräfte**

Quelle: eigene Untersuchung

Jugendliche bevorzugen Ausbildungen auf dem Gebiet der Informatik und der Computerwissenschaften, der Wirtschaft, des Rechts, des Tourismus, der Ingenieurwissenschaften. Das zeigt, dass Jugendliche vor allem traditionelle Fachgebiete bevorzugen, weil es ihnen an Information über die zukünftige Entwicklung auf dem Arbeitsmarkt fehlt. Hier finden wir auch die Rolle der Schule, die über ihre streng theoretische Ausrichtung hinausgehen soll und mehr an pragmatischer Ausrichtung gewinnen soll, um den Schülern Informationen zu vermitteln, die nützlich für ihre zukünftige Entwicklung sind, anstatt von althergebrachten Theorien, die im modernen Alltag gar nicht mehr anwendbar sind.



**Abbildung 3: Umfrageergebnisse Jugendliche im Alter bis 18 Jahre**

Quelle: eigene Untersuchung

Laut Friedrich Hubert Esser (Zeitung Frankfurter Allgemeine, 18.08.2015), Vorsitzender des Bundesinstituts für Berufsbildung (BIBB), sollen nicht alle sich auf das Programmieren orientieren. Mehr gesucht wären Kompetenzen zur Lösung von Problemen und Kompetenzen zu dem konkreten Produktionsprozess, wie z.B. das prinzipielle Verständnis über das Funktionieren der Informationstechnologien, über das Verteilungsverhalten, sowie über den Umgang mit Führungssoftware. Die Industrie erwartet von der Digitalisierung keinen großen Schub zu neuen Märkten, aber in den nächsten Jahren könnten nur in Deutschland zehn Tausend neue Arbeitsplätze für Ingenieure, Informatiker und Software-Entwickler geschaffen werden.

**Kompetenzen, die Lehrkräfte unter den Bedingungen der 4. Industriellen Revolution besitzen müssen:** Die sorgfältige Auswertung der Tendenzen deutet darauf hin, dass in Zukunft auf dem Arbeitsmarkt qualitativ neue Fachleute gesucht werden, die Wissen, Fähigkeiten und Fertigkeiten besitzen, die sich von denen unterscheiden, die bisher an Schulen und anderen Bildungsinstitutionen gefördert wurden. Das stellt auch Schulen und Lehrer in eine ungewohnte Situation, in der sie den erhöhten Anforderungen der Wirtschaft und der sich dynamisch wandelnden Umgebung gewachsen sein müssen, indem sie Innovation, Neuerungen, High-Tech und Wirtschaft verbinden. Die Lehrer von heute werden zu einem Vermittler zwischen Bildung und Wirtschaft. Sie müssen nicht nur theoretisch gut vorbereitet sein, sondern auch praktisch, die Möglichkeiten der neuen Technologien beherrschen, in die Ausbildungsmethoden mehr und mehr die modernen Errungenschaften der Wissenschaft einbinden, die Möglichkeiten der Smart-Technologien immer mehr nutzen. Noch mehr sogar, die Rolle der Lehrkraft kann von einem Smart-System übernommen werden, die von Lehrern betreut zu werden braucht, eine gute theoretische, praktische und pädagogische Vorbereitung mit Kenntnissen über die Prinzipien der Arbeit von intelligenten Technologien integrieren, ohne die das Wissen zu den Lernenden gar nicht gelangen kann.

### **SCHLUSSFOLGERUNG**

Auf der Schwelle zur vierten Industrierevolution kann die Smart-Lehrkraft mit seinen Kompetenzen zu einem sehr bedeutenden Teil des Systems für die Überwindung der Ungleichheit und der Armut werden. Die Fähigkeiten und Fertigkeiten, die der Lehrer in den Heranwachsenden aufbauen und entwickeln sollte, sollte diesen den Zugang zu Arbeitsplätzen und Wettbewerbsvorteile auf dem Arbeitsmarkt sichern. Solche Fähigkeiten und Fertigkeiten kann aber nur eine Lehrkraft aufbauen und entwickeln, die smart ist und die Fähigkeit hat auf eine zugängliche Art und Weise nicht nur Wissen und praktische Gewohnheiten vermittelt, sondern auch Intuition, Flexibilität, Kreativität, Kritikfähigkeit, Initiative.

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# THE PROBLEM OF INEQUALITY AND POVERTY PROVOKED BY THE FOURTH INDUSTRIAL REVOLUTION

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**Abstract:** *The ever more present problem of inequality and poverty provoked by the already started Fourth Industrial Revolution requires a serious reconsideration and planning of a strategy for overcoming the consequences of a moral and ethical nature. This could be done only and solely on the basis of accurate defining of the problem, outlining the prerequisites, which have provoked it and the consequences, which follow.*

**Keywords:** *inequality, poverty, Fourth Industrial Revolution*

## INTRODUCTION

The fast speed, with which the Fourth Industrial Revolution evolves, leads to a quick upgrading of the digital revolution achievements; to the combination of numerous innovative and intelligent technologies; to new technological breakthroughs covering areas, such as artificial intelligence, robotics, the Internet of things, autonomous motor vehicles without a driver, 3D printing, nanotechnologies, biotechnologies, material science, energy preservation, quantum calculation. This preconditions both unprecedented changes in economy, business and society, and also, a deep and long-term transformation of all the public-and-economic, socio-economic and business relations. On the background of this reality, looming in the near future, leaving the so-called "stone age" that we currently live in, will be related to inequality and poverty, provoked by the loss of jobs, the replacement of the former plants with the so-called "smart factories", and the advance of robots into our everyday life.

## NATURE OF THE PROBLEM "TECHNOLOGICAL DEVELOPMENT: INEQUALITY AND POVERTY"

The speed with which technologies develop and their quick introduction not only in science, medicine and microbiology, but also in the daily living, leads to a number of issues of a moral-and-ethical nature. It turns out that the price, which the humankind should pay for leaving its current technological status, is related to the occurring of large-scale social cataclysms, such as poverty affecting the people with low educational qualification, and ever more present inequality between educated and uneducated people, technologically developed and low-innovative countries. The data presented at the International Forum in Davos in January, 2016, show that the Fourth Industrial Revolution "will cause not only mass scale breaching of the business models, but also of the labor market over the next five years" (Schwab, 2016), while the economic transformation will lead to "a loss of more than five million real jobs in the next five years" (<https://www.weforum.org>). Is there any chance to leave the "stone age" that we currently live in, and rush towards the high

technologies, innovations, new inventions, smart devices and gadgets, however, without going into conflict with our moral-and-ethical values and standards? Is there any chance that the smart cars, the smart technologies, the smart homes, the smart school replace quietly, smoothly and perfectly morally the already outdated gasoline and diesel engine, the becoming obsolete pump columns at the petrol stations, the old-fashioned traditional bricks and roof tiles, construction workers and activities, as well as the teacher, who got used to students' oddities, and every day goes into the class to teach and examine?

The unprecedented merger of technologies in the physical, digital and biological world requires from the people new knowledge, which should be adequate to the challenges and is determined by the new jobs. At the same time, there is an ever more imminent threat that inequality and poverty of an alarming proportions will be preconditioned by the high technologies and innovations, as well as by the willingness of the companies to be competitive, to generate low costs and replace incessantly human labor with robotic one. Thus, the humankind will enter one of its deepest moral-and-ethical crises, where the value of equal access to labor and the right of peaceful living will give way to a pragmatic and highly technological development. There was a premonition for this trend announced back in the early 2016 at the International Forum in Davos. This trend, however, is not unfamiliar in human history. Thus, for example, in the beginning of the Industrial Revolution, in 1811, the textile workers in Central and Northern England, mostly weavers, rose in spontaneous revolt, breaking machines and setting fire to factories, while claiming that the new machines take their jobs and salaries away from them. This would lead to the idea that the transition from one technological level to another in economic and social aspect would not be possible without a compromise with the universal human values and ideals. So, a question becomes spontaneously imminent, whether yet another transition from the "stone age" to a higher technological stage of development of our economies and society, would not be accompanied with another violation of universal, global moral norms and standards?

At the same time, however, David Ricardo is the most influential economist in the 19<sup>th</sup> century, wrote in his work of 1817, Principles of Political Economy and Taxation, that "the replacement of human labor by machines is often very painful for the workers", and that "the same factors, which can raise the net revenue to the economy, may, at the same time, make the population redundant" (Ricardo, 2015). Therefore, "the opinion of the workers that machines are often a disaster for them is not due to a prejudice or a mistake" (Ricardo, 2015).

### **MORAL CRISIS PREDETERMINED BY THE ALREADY STARTED FOURTH INDUSTRIAL REVOLUTION**

The Fourth Industrial Revolution has already introduced the second wave of the digital technologies, whereby essentially changing not only the mobile communications and the social media, but it has turned into an intrinsic part of our reality the cloud technologies, the virtual calls and exchange of information, photos, files, the virtual management, the Internet of things, the innovative business, economic, production and educational models, which are already contributing to the self-organization and

management of the so-called "factories of the future". Ever more often determining are already the communications of the type of: "machine-machine" and "machine-human", the dominant technologies mechatronics, informatics, electronics, robotics, sensorics, biotechnologies, nanotechnologies, which precondition the high level of intelligence of the workforce. Over the last 15 years, there have been destructive technologies emerging more and more often, such as 3D and 4D printing (Additive Manufacturing), 3D stimulating of the production, dramatic shortening of the time gap between the idea and the market, flexibility and "individualization" of the mass production, distance management and facility maintenance. All that, very poignantly, makes David Ricardo's thesis, written in the 19<sup>th</sup> century, particularly relevant today as well, since the population and the human being seemingly become redundant again. Thus, the contemporary moral crisis is becoming imminent, and it would demand a new value approach to the processes, which are likely to take us over only within the next 5 years.

The ever clearer, in the course of time, merging of the digital with the material world leads to generating new opportunities in respect to the usefulness of the goods, products and human potential. On the background of this reality, where competition and race between the organizations and the human resources will become more evident over the next decade, there is the issue of preserving the main human values and moral categories, as well as the question, whether leaving "the stone age" may take place on the basis of preserved morality and values (Temelkova, 2016). This requires goal setting of a long-term moral-and-value oriented strategy, which would lead to the development and advance of the new technologies and innovations without any commotion for the human standards for morality, ethics and values.

## CONCLUSION

The relevance of the trends, which are determined by the advance of the Fourth Industrial Revolution, as well as the need for preserving some universal ethical norms, requires the synthesizing of an essentially new concept for overcoming the pending inequality and poverty, which should integrate the correlation dependencies between the major factors determining development and the core universal moral-and-ethical and value standards.

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# "GREEN ECONOMY" AS A NEW VECTOR OF A SUSTAINABLE DEVELOPMENT OF THE REPUBLIC OF KAZAKHSTAN

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***Abstract:** In the article the problems of formation of green economy in the Republic of Kazakhstan are stated. In the process of being accelerated by scientific and technical progress, national priorities of the state support such branches as traditional power, agriculture and other a resource-saving, processing of a waste, ecological housing construction and architecture, "clever cities", trade in the "green" goods, an aquaculture, steady transport, ecological tourism, ecosystem services and others dynamically developing change. On the basis of the revealed best technologies technical standards and environmental management standards, the priority directions of development of science and equipment, as a whole economic policy are reconsidered.*

**Keywords:** *green, economy, resources, ecology, strategy, technologies*

## INTRODUCTION

Nowadays the society differently understands the expression essence "green" economy. One considers that it is a new branch of economy which will improve the country's nature. Others understand this expression as new technologies, some kind of ecosystems which are urged to help and benefit the nature. The third consider that it is a transition to a new stage of development with the purpose of creating non-polluting products. All these approaches to define a concept are very close to value the expression. Green economy is rather a new direction in the economic theory, considering natural resources as "the natural capital". Such approach changes the principles of use and economic interaction with the nature; it defines such terms as an extremity, accumulation and an expenditure of natural resources.

## MATERIALS

The "green" economy is the economy directed on preservation of wellbeing of society, at the expense of effective use of natural resources, and also providing return of products of final using to a production cycle. The theory of green economy is based on three basic principles: it is impossible to expand infinitely a sphere of influence in limited space; it is impossible to demand satisfaction of infinitely growing requirements for conditions of limitation of resources; everything on the surface of the Earth is interconnected.

It should be noted that the first stage of the "green" economy is directed on economical consumption of those resources, which are subject now to exhaustion (minerals, e.g. oil, gas) and rational use of inexhaustible resources.

The last decades the world community has come to an understanding that the necessary preservation of the world ecosystem and transition to a sustainable development are impossible by simple balancing between economy, ecology and the social sphere. Communication with the new model of development, at which future generations will be provided with resources for stable existence, is necessary. Such model of development at the World summit of Rio+20 is defined "green" economy, today is more and more actual for the whole world, including Kazakhstan [1]. In the Strategy "Kazakhstan 2050" it is emphasized that in the XXI century the mankind is compelled to consider new global ecological challenges of objective character in the strategic plans: global demographic imbalance, threat of global food security, severe shortage of water, global power safety, and charpoy most of natural resources. It is obvious that the right answer to ecological calls is possible only at consolidation of intellectual, spiritual and political potential of all mankind. The majority of global threats predetermine the appeal to a green way of development of national economies of the world and their integration as environmental problems do not know geographical and political boundaries. Constantly growing human wants in natural resources put huge pressure upon a biodiversity that finally threatens future safety of our own look. Dynamics of the population is one of the main motive forces of pressure upon environment. Since 1950 the general size of the world population has increased more than twice and has made 7 billion people in 2011 and, on forecasts, will reach more than 9.3 billion people by 2050 at what two from three people will live in the cities [2]. Before mankind sharply there is a need for development of new and advanced methods of management by natural resources, preservation of global balance between the person and the nature.

The "green" economy is based on a priority of long-term stability of economic development which on a fair basis satisfies requirements of the real generation, without restraining possibility of future generations to satisfy the requirements.

In Kazakhstan the state policy is directed on strategy realization on transition to "green" economy. Transition of Kazakhstan to "green economy" has a number of difficulties: Riskiness of formation of the enterprise in this branch. Owing to relative novelty, small knowledge and lack of competence of the sphere of "green economy", businessmen with care master this market; need for huge financial injections for enterprise creation; shortage of shots in this sphere means that at the initial stage it will be necessary to involve foreign experts, to retrain existing shots that in turn, also demands sufficient material inputs; long period of payback of the fixed business assets. It is important to consider degree of competitiveness of let-out non-polluting production and power in comparison with its foreign analogues.

In 2013 the Concept on transition of the Republic of Kazakhstan to "green" economy is approved, the list of the priority tasks mainly aimed at reforming of certain branches of economy is presented [3]. Within transition to "green" economy, it is supposed: to increase efficiency of resources; to improve the Kazakhstan infrastructure; to improve welfare of the population.

Implementation of the concept is planned in three stages:

*The first stage 2013-2020:* optimization of use of resources and increase of efficiency of nature protection activity, and also creation of "green" infrastructure;

*The second stage 2020-2030:* rational use of natural resources, introduction of renewable power on the basis of high technologies;

*The third stage 2030-2050:* transition of national economy to principles of "the third industrial revolution" in which basis use of natural resources in case of their renewability is necessary.

Seven main directions of development of "green" economy in Kazakhstan are defined:

1) oil, gas: around the world classify introduction of renewable as one of the largest energy resources, but even they are settled in due time; necessary to find alternative;

2) power efficiency in housing and communal services as communications by that a considerable part of city housing stock has been constructed during Post-Soviet time, the majority of housing estates is equipped with inefficient heat insulating designs and heat supply systems that leads to considerable thermal losses. Now in Kazakhstan the power service companies, urged to carry out action in the field of debugging of operation of devices of a heat supply operate;

3) organic agriculture in agriculture considers refusal of synthetic products fertilizers (pesticides), various fodder additives for ensuring productivity, growth of cultural plants. "Gardening" of agriculture will allow to provide the food to the population, without harming thus to natural resources. Kazakhstan plans to operate in the following directions: management of fertility of soils; effective use of water; management of health of plants and animals; mechanization of farms.

4) improvement of a control system by waste is offered to use a waste as a by-product of a production cycle. E.g. the technology of complex processing of a trendy household waste and receiving alternative fuel is already realized in Almaty;

5) improvement of a control system by water resources as water remains a key natural component of ensuring existence of mankind and integrity of ecosystems. In this regard, rational use of water resources remains a problem getting huge scales;

6) development of "pure" transport is the majority of transportations in Kazakhstan is carried out on diesel engine/petrol. It promotes high emission of hotbed gases;

7) preservation and effective management of ecosystems is the activity which is mainly directed on preservation of unique natural wealth of our country.

## **RESULTS**

Kazakhstan possesses high potential of development of renewable sources. It makes about one trillion kilowatt-hours a year. Thus the capacity of small hydroelectric power stations is estimated at 8 billion kWh, use potential wind energetic at about 920 billion kWh, and the potential of solar energy reaches about 2500-3000 sundial in a year. And from 2 thousand rivers of the republic about 5% are suitable for construction of small hydroelectric power stations. By 2014, according to the State program on forced industrial and innovative development, it is planned to finish an electricity generation indicator on renewable sources to 1 billion kilowatt-hours. Rather wind capacity of Kazakhstan it is possible to note that the meteorological

researches which have been carried out by the Danish research centre RISO, have confirmed extraordinary wind conditions in Dzungarian Gate which are defined as one of the best in the world and as very good – in the Sheleksky corridor (mid-annual speed of a wind makes 7 m/s, in Dzungarian Gate about 8 m/s). This wind potential allows providing high efficiency of capacity of a wind station (over 30%). Annual electricity generation can make for Dzungarian Gate 4400-4500 MWh. At sufficient technological equipment increase of production of alternative energy in times [4] is possible. Possessing such potential, it is necessary to realize this sphere. Advantages of solar power are visible in proximity to any consumer. The main restrictions connected with use of solar energy, are caused it by inconstancy: solar installations do not work at night and are ineffective in cloudy weather. In the winter when the need for energy is especially high, its development, on the contrary, will decrease several times. After all besides short light day, beams of the low winter sun even at midday should pass much thicker layer of the atmosphere and consequently lose on this way essentially more energy, than in the summer when the sun costs high, and beams go through the atmosphere almost steeply.

Owing to instability of receipt of solar energy of system of solar heating should work with an additional reserve power source or with the thermal accumulator. In a midland at strong overcast at midday the capacity of the sunlight which has reached a surface of Earth, is estimated approximately at 100 W/sq.m. In summer midday on each square meter focused perpendicular to sunshine, it is necessary a stream of solar energy in capacity about 1 kW.

Problem has received the decision in creation of the first in the territory of Kazakhstan a solar power station of industrial scale of the "Flocks", the Zhambylsky area located in the Kordaysky area. The solar power station of "Flocks" consists of 51 solar installations; each of them has 42 panels. They can make 235 W. Term of operation of solar modules about 25 years. In clear days the object is capable to provide with the electric power about two hundred households, and after an exit to design capacity their quantity will increase to 2500. Cost of the electric power of SES of "Flocks" will make 23.4 tenges with the VAT for 1 kWh while in Europe cost of the solar electric power exceeds 60 tenges for 1 kWh. Soon it is planned to realize four projects hydro-, wind- and solar- power in the general capacity of 165 MWt where attraction of investments in the sum about 370 million dollars [5] is planned.

The Program has been developed for the solution of problems of agricultural sector and increase of its competitiveness on development of agro-industrial complex in the Republic of Kazakhstan for 2013-2020 "Agrobusiness-2020".

Implementation of the program will allow to create favorable conditions for development of branch and to provide food independence on the main food. According to forecasts development of economy and realization of measures for power efficiency will lead to growth of power consumption by 2.3% a year by 2030 to 136 billion kWh and for 1.2% a year by 2050 to 172 billion kWh.

Thus, power consumption of gross domestic product of the country will decrease for 50% concerning level of 2010 [6].

## CONCLUSIONS

One of the key projects, promoting acceleration of transition of Kazakhstan to "green" economy, is carrying out world exhibition EXPO-2017 in Astana. It is planned that in exhibition work accept participation about 100 countries of the world and the international organizations, more than 2 million people can visit. The subject EHRO-2017 "Energy of the Future" will allow to involve the best world technologies of the energy saving, new development and technologies of use of existing alternative power sources, such as energy of the sun, wind, sea, oceanic and thermal waters. The exhibition will give a powerful impulse for a system diversification of economy and technological modernization of capacities and scientific base of the country [7]. Astana becomes a platform for innovative development in the sphere of alternative and renewable sources.

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# INNOVATIVE-TECHNOLOGICAL FACTOR OF SOCIAL INCLUSION IN THE INDUSTRY OF UKRAINE

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**Abstract:** *The article reveals the essence and proved the key role of social inclusion in the context of the implementation of a new stage of industry development. The status and the problems of innovation-technological development of Ukrainian industry and featured their influence on the formation of the labor market have been analyzed. Authors has developed proposals on areas of implementation of industrial and innovation policy of the country in strengthening social inclusion and the necessity to consider inclusive business models as part of the overall business strategy for the inclusion of vulnerable segments of the population in the business activities in different sectors of the industry.*

**Keywords:** *industry, social inclusion, innovation development, industrial policy*

## INTRODUCTION

In economically successful countries, the industrial development is directly associated with innovative issues, so to separate innovation and industrial policy is impossible. In the context of the above-mentioned policy today innovation and industry recognized fundamental factor of innovation development in the direction of greater inclusion.

The economic essence of the concept of "inclusiveness" is most fully discussed in the works of famous modern economists Robinson and Acemoglu in particular they note that inclusive involves everyone, without distinctions and restrictions [1]. In recent years, international research has increasingly used the terms "inclusive growth", "inclusive business models" and "inclusive innovations" [3; 5], which means that innovations are created for various (usually poor) populations, and that in the conditions of realization of the open innovation concept requires the involvement of producers in the creation of innovative products and technologies, taking into account characteristics of the markets in poor countries. Such innovations are aimed at the consolidation of economic growth and socio-economic development. The World Bank invests in the concept of "inclusive innovation" "creation of knowledge and the efforts for their implementation in the form of products and services that are most relevant to the needs of the poor" [4].

The OECD is implementing a project aimed at supporting the implementation of the new industrial revolution caused by the development of global value chains, the growing importance of intellectual capital, the growth of the digital economy highlights the following key points of the new initiatives in the field of scientific and technical activities (STD), related to the issues of industrial policy: a greater

emphasis on networking among economic agents, long-term planning, the relative decline of the role of direct financial state support, including in the sectors of defense industry; the transition from sectoral strategies technology [7].

The report of the National science Foundation, 2014 [6] are largely devoted to problems formation of knowledge-based / intellectual (knowledge-technology-intensive, KTI) industrial sector not only in the United States and the developed world but also in countries that are developing. It should be noted that this sector is a growing part of global economic activity in 2012, KTI industries accounted for 27% of global GDP, and in developed countries the share of this sector increased from 29% in 1997 to 32% in 2012. For example, China's share of global high-tech industry grew between 2003 and 2012 from 8% to 24% [6]. At the same time in the world increase spending on health and education: over the period 1997-2012 about 1237.7 to 2873.4 trillion in the USA, and in China they increased from 28.9 to 257.6 billion [6]. So, the issues of social inclusion indicated, however, there is a need for detailed studies of for example a particular country, taking into account the peculiarities of its socio-economic development. The purpose of the study is to reveal the essence of social inclusion and to analyze the state of innovation and technological factor in the development of industry in Ukraine and define the issues and terms of strengthening social inclusion.

## **MATERIALS AND METHODS**

The theoretical and methodological foundations of the research are scientific concepts and works of foreign scientists, methodological and analytical materials of international organizations in the field of socio-economic and innovative-technological development of industry and industrial policy. A study of the state of industry development in Ukraine was performed by analysis and synthesis, statistical analysis and graphic method presentation of results. Using the methods of analysis and synthesis of available online information and official statistical information about the labor market will identify the key reasons for the deterioration of employment in Ukraine and in industry in particular.

## **RESULTS**

During Ukraine's independence there were many initiatives in the institutional and business plan for the formation of effective mechanisms of activation of scientific-technological and innovation activities in industry. However the government and before this time has achieved significant success in creating the innovative climate in the country, measures to support innovation activity are local in nature and do not allow to reverse the current negative trends in the loss of scientific-technological potential in industry.

The influence of industrial sector of Ukraine on the national economy over the last decade has been steadily decreasing. Thus, the share of industry in GDP fell from 27% in 2006 to 20% in 2014. Such a decline in industrial production, especially in the Eastern regions directly had a negative impact on the employment market, resulting in the release of large number of workers joined the ranks of the

unemployed. In addition to the direct liberation of wage-workers, is widely used the reduction in the number of working days, part-time, sending people into not paying fixed-term or indefinite leave, which is an example of hidden unemployment. In 2015, innovative activity was engaged in 17.3% of the total number of industrial enterprises with an average number of employees of 50 people or more. Innovation enterprises spent UAH 13.8 billion including the purchase of machinery, equipment and software by 80.7% of the total volume of innovation expenses, internal and external of 14.8%, the acquisition of other external knowledge (purchase of new technologies) 0.6%. In 2015 innovations introduced 87.7% of enterprises that engaged in innovative activities, innovative products and 57.3%, new processes by 55.3%. The problem of low investment activity escalates in terms of critical depreciation of fixed assets in the Ukrainian economy. So, in 2014, the overall degree of deterioration for all types of economic activity made up 77.3%. For most industries and sectors of the Ukrainian economy the priority is the almost complete renewal of production capacities of modern technology.

Specified funding situation significantly affects the dynamics of the new technological processes introduction to increase their number during 2006-2011 (also significant in the crisis period), while the proportion of introduction of low-waste and resource-saving of technological processes decreased in 2009-2011 (*Figure 1*), that reflects not only the lack of effective government incentives in this area of modernization of the industry, but also reflects the structural feature as the majority of enterprises in low value-added processing facility that are not interested in modernization of its technological base in the conditions of obtaining the high rents in favorable conditions in foreign markets.

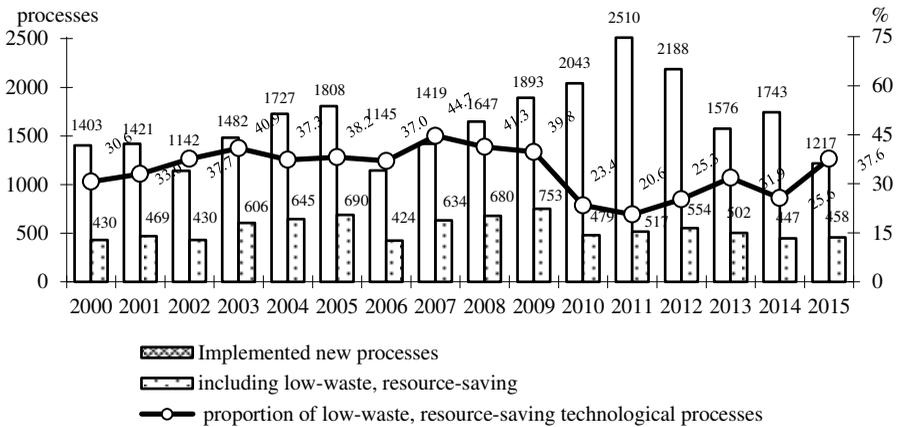
However, recent trends show that a key feature of the modern world economy is that the main driver of development of the industrial sector was the implementation of the concept of "smart production" with the use of a large number of robot systems, which involves the use of the most advanced technologies and global computerization.

The results of our ongoing regular research on the state of the innovation sector testify the lack of a consistent and systematic approach to public financial support for innovation and technological development of the industry. Among the reasons hampering the implementation of the role of innovation and technological factor to increase competitiveness of the Ukrainian industry include the following:

1) Lack of demand for innovation, as economic policy does not generate active interest the majority of economic entities in the results of scientific research or they find themselves unable to effectively use innovations;

2) Lack of developed institutions, ensuring the functioning of innovative economy in all its components (organization and management development; financing, marketing, commercialization, etc.);

3) Low solvency of the population that gives inability to pay higher prices for higher quality products. As a result, the processes of modernization of Ukrainian industry, as well as reproduction of scientific and innovative potentials become complicated.



**Figure 1: Dynamics of implementation of new technological processes at the enterprises of Ukraine**

Source: calculations based on data from the state statistics service of Ukraine

The weakness of the domestic innovative capacity creates serious barriers to economic development and increases the risk of rapid exhaustion of the available drivers of economic growth and contributes to social problems.

In 2015, the economically active population in Ukraine decreased by 0.5% compared to 2014. The level of employment also fell by 0.5%. The General trend reflects the data and employers. So, for 2015, employers warned of the planned mass dismissal of 444 thousand workers, almost double than the year before (246 thousand). During 2015 the number of vacancies declared by employers, amounted to 876 thousand [8]. According to the latest data, the total number of vacancies was one in five in the processing industry. For occupational groups, the greatest demand for labor at the end of January 2016 has been observed for skilled workers with tools (19.3% of the total number of declared vacancies), and the lowest skilled workers in agriculture, forestry, and employees (4.6%).

In our opinion, the strategies to overcome these problems must be to ensure accelerated development of the economy in Ukraine on the basis of improvement of technological industry. This should also be one of the key imperatives of the realization of economic, institutional and technological reforms in the country, which will contribute to the elimination of the Ukrainian economy on a sustainable path of innovation, technological and informational progress. The world's leading ratings confirm the presence of significant technological and intellectual potential in Ukraine, provided a significant improvement of the state industrial policy in the direction of social inclusion can affect economic growth.

The loss of the fifth part of industrial potential of Ukraine is of particular importance to the national concept of re-industrialization based on innovation, which suggests the increasing role of information and communication technologies,

increasing the share of knowledge-intensive industries in the structure of production and exports. Ukrainian companies and developers export services in the field of intelligent information technology worth more than \$ 5 billion US \$. This is the source you need to draw more to the domestic market. In need of substantial revitalization programs and projects of sectoral, industrial and technological cooperation, participation in international investment projects, include the development of infrastructure networks (transport, communication, technological and the like) that will form the prerequisites for upgrading national competitive advantages.

One of the important directions of cooperation between Ukraine and other countries should be the implementation of new technological solutions in the energy sector, automotive industry, civil engineering, agriculture etc., which would not only be aimed at the development of new business opportunities, but at the same time would serve to preserve and protect the environment, ensure the quality of life, that has contributed to effective achievement of social objectives of development of individual territories and of the entire national economy.

Unfortunately, in the policy documents of the state authorities and the recommendations of the scientific expert environment there are no principles of inclusion, and the emphasis is on the development of national and regional models of the equalization and depolarization conditions of employment of various categories of workers, economic activities, large and small cities and rural areas subject to ensuring the necessary organizational and financial support and the consent of the parties of social dialogue and social structures [7]. However, the development of inclusive markets in Ukraine should be an important step in the implementation of the holistic concept of the system of social protection of the population, focused on reducing social risks for poor and vulnerable groups, creating conditions to reduce poverty, promote the formation of active policy of employment and reduce unemployment, including: a) public works b) development of an automated information system with local labor markets, especially for Bank jobs, and the organization of exchange of information, at least within neighboring administrative districts c) professional training and retraining of the unemployed on the basis of tripartite agreements between employment services, employers and educational institutions etc. It is necessary to consider inclusive business models as part of the overall business strategy for the inclusion of vulnerable groups of population in business activity in various sectors of the national economy.

## **DISCUSSION AND CONCLUSIONS**

In the future it is necessary to assess the impact of technological and structural changes on the economy as they affect employment, property bumps, etc. and it is also necessary to solve the problem of financing, because the implementation of the new industrial revolution needs a huge investment in modern information technology infrastructure and education, it is necessary to ensure information security, to ensure the protection of intellectual and private property by creating and improving the existing regulatory framework.

Different strategies for smart specialization from traditional approaches should become an active process of searching entrepreneurs; focus on building the best environment for interaction and realization of the potential of the different economic agents, strengthening the importance of societal interests and needs (innovation ecosystems). The creation of adequate global and geopolitical challenges in the regulatory environment and incentive measures will help set the direction of technological development, and much can be done to ensure that technology complements the activities of people, not replace them. Also essential should be to support the development of technological innovation by organizational changes aimed at reducing levels of hierarchy and decentralization of managerial functions. It should seek to employ technologies that are more suited to industrial enterprises based on their characteristics and taking into account existing factors of production, qualified personnel and sufficient resources. Investing in the latest technology is the only possible and confirmed by the scientific regulations and the practical experiences of the country's way to ensure socio-economic growth on a qualitative basis, which enhances the inclusive development of the economy of Ukraine, which until the present time has a huge scientific-technological and creative resource.

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# LEADERSHIP: SENSE AND VALUE

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**Abstract:** *The role of the leader in an organization occurs through "values", and today it is multidimensional within the "personality-environment" context. The analysis of the survey conducted in a company that grew from micro to small enterprise during the last year, outlines the image of the leader and its social orientation as viewed by his coworkers. The objective is to compare the perceptions of respondents and "eras" marking the "metrics-sociability" transformations. The contribution of this survey is to identify the opportunities for better performance through synergy in leadership knowledge. This paper aims at testing the tools to determine the perceptions in identifying leadership to enhance effective teamwork.*

**Keywords:** *leadership, evolution, evolution of leadership, opportunities through synergy*

## INTRODUCTION

Leadership is identified within the organization as a role, which has recently become a subject of scientific interests. Understanding of its nature and social function is an undergoing intensive transformation. In the spirit of the history of the "Great Man" (Carlyle, 1840) the hypothesis of genetic heredity and how it determines geniuses (Galton, 1869) has been defended. Subsequently hundreds of researches were conducted to identify those traits with which leaders might be endowed by birth. This search is determined by the willingness of authors to compile a statistically supported list of the "right" qualities. As a result, besides physiological traits such as: age, height, weight, body measurements, some others are specified as well: morality, self-awareness, social skills, will, charisma, enthusiasm, intelligence, pursuit of knowledge; pro-activity, etc. (Cattel, Slice, Stogdill, Mann).

Examining these results, the nature of the age in which the analyzed leaders have lived should be taken into account as well. These were times of strong social division and clearly marked caste society. A trend started to stand out in the research related to the adoption of a new category that goes beyond the person with formal authority as the one of the social image. Historically, successful leaders established themselves as personalities who apart from their public or official position, manage to inspire people around them and to achieve more by working together for a common goal.

Within the context of corporate organization, this division may be classified as "management" and "leadership" (Temelkova, Bakalov). When resulting from the official position, the power is formal, relationships are official, the result is intentional and there are possibilities of incentives and sanctions. While in leadership we have informal environmental interaction that occurs spontaneously without a structured system of incentives and sanctions (Parygin, 1973). Nowadays, leadership is seen in deep integration with the social aspect of organizational psychology (Zankovski,

2000). Thus, the three major "eras" of leadership science are formed. The first one is the structural approach focusing on the traits of the personality that are characteristic of an effective leader. The second one is the behavioral study, examining the role of the leader to guide and direct the behavior of the group. In the 30s of the last century, Kurt Lewin identified the first classification of styles: autocratic, democratic and laissez-faire. The third approach situational examines the manifestation of leadership within the context of various circumstances (Lewin, Lippitt, 1938).

The development of personal skills for leadership among coworkers, who do not occupy leadership positions in the organization, is established as a necessity in the implementation of the theory of eccellocentric organizational norm (Taylor, 1911). The shift of distribution from the average to the highest value in the performance introduces a second standard deviation and draw-out to the limiting maximum. High personal results are decisive for the positioning of employees as leaders in the working groups. In the organizational structure of a small enterprise of 12 employees, it is not appropriate many formal positions to be established. It is therefore necessary to focus on personal competences of each one of the employees and their leadership skills to be developed by synchronizing the perceived leadership category.

### **THE SOCIAL IMAGE OF THE LEADER IN THE ORGANIZATION AND THE METRICS IN ITS SUCCESS**

The subject of study in the conducted survey is attitudes among coworkers for the role of the leader in the organization. The object of the survey is a dental medical center in Varna, Bulgaria. Its choice is based on the fact that during the last year, the company's staff has increased by 50% and the present moment provides the best opportunity to achieve best results through synergy in the operation and the effective teamwork. The questionnaire contained 13 questions and was completed by the respondents on-line. The survey was composed of three blocks as direct, indirect and dichotomous questions were used. The first section represented the essence of the questionnaire. The second part collected data on the length of service of the respondents and if they wished they could indicate their average salary. The group of demographic questions was at the end. This was a pilot study to identify the option of improvement of the tools.

The distribution of answers on leadership as congenital or acquired skills was absolutely even. Data show no correlation between the respondents' selection of an answer and the age or the total length of service. The picture that was outlined is not surprising. Despite the easy information access to scientific and popular literature on the subject, the cultural environment in the country should be considered. During the years of socialist rule in Bulgaria, the church had limited functions, yet stable position. Unlike Catholicism, Orthodoxy does not tolerate individualism, although it is oriented to a greater extent to respecting human rights (Pllis, 1993). In combination with the long totalitarian rule and the years of transition when there are no sustainable leadership models in the political and public life, the equal position of theories of leadership by birth and the one that can be developed by everyone is justified (Temelkova, 2016).

Identifying an employee as a leader by the respondents in the following question is fully in terms of the "attitude to the team". There is no one among respondents who has indicated the alternative option of "distinctive personal results". These data emphasize entirely on the perceptual part, and the metric one is neglected by coworkers of each managerial level. This idea is also supplemented by the choice of characteristics making every leader recognizable. Here, again, coworkers determined a focus on the perceptual part by selecting two complementary answers "Relationship with colleagues" and "Specific presence the leader has during work". Again, "Hierarchical position" and "Metric results" were not among the options chosen. This combination of answers and the lack of correlation between official position, length of experience or age, indicate the highly expressed social orientation of the organization. The view of coworkers and the formation of a "family environment" can be seen as a natural extension of the family business philosophy in the transformation occurring in a growing company. An interesting question is whether this approach will have a positive long-term impact on the financial performance of the organization and the managerial processes.

Two of the questions in the questionnaire are aimed at diametrical positioning "Should the manager be a leader?" and "Should the leader be a manager?" The positive answers to the first one were eight out of twelve. To the second one there was only one respondent who has connected the formal position with the informal role. Coworkers do not recognize the position as a mandatory requirement to reveal the leadership potential of an individual. Considering the orientation of the attitude to the team, these answers reinforce the concept of the leadership as a social function of the working environment. Thus, the management is faced to the challenge to strengthen the sense of moral justice, because it is essential for the power of a company though leadership (Zankovski, 2016).

The next question on the position of the leader and the hierarchy is related to the change in environment. Half of the respondents indicated that once an individual has proven himself as a leader this did not mean that he would have a leading role in change of position in the organization or changing the workplace in general. A quarter of them tend to assume that the change of position would not affect an already proven leader. The least supported opinion is that even at a new workplace or in any change whatsoever, the leader shall retain his so expressed nature. Attitudes to change and binding the perceptions of an individual with the context of professional situation is an essential issue in the leadership concept.

The conducted survey showed the formation of groups in the distribution of answers indicated by respondents centered on the "social sense of leadership". The issue of leadership as an inborn trait shall be an interesting accent in future studies. Adding this aspect to the tools may be directed to the "residual influence of the totalitarian era on the corporate culture". Another period, characteristic of the organizational reality in the country as the ongoing "transition" to an open economy of the private initiative in a global context, should be taken into account as well. These socio-cultural features form the macro environment of the organization. They have also an impact on the performance of the company's mission to achieve the vision stated by the organization.

Considering the above and the answers of the respondents, a leader, having a transformative role is outlined. The processes of transformational leadership are related to proactive work of coworkers to achieve better job performance (Schmitt, Den Hartog and Belschak, 2016). Compared to self-awareness leadership, this is the approach that would in greater extent meet the expectations of coworkers and has been proven to be related with better performance (Banks, 2016). The transformational leadership can be included in the questionnaire with the four categories of dimension: 1) the idealized leader who cause others to follow him; 2) inspirational motivation through a shared vision 3) intellectual challenge to norms and status quo and 4) prioritizing the needs of his followers before his own (Judge & Piccolo, 2004).

## **CONCLUSION**

The leadership in an organization, as a common feature in the market environment or of an individual, cannot be considered in static terms. This is a constant process of change driven by internal or external factors to the businesses as a system. The objective of this study was to identify the opportunities for synchronization between coworkers for the leadership category. The approach to synergic result is consistent with the scientific knowledge evolution on the "personality-performance-organizational environment of relationship of global environment of macro factors".

The first necessity is to adopt an opportunity every one of coworkers to develop their own full potential. This involves becoming aware of the activity as a system and identifying the personal position. Clearly defined protocol of assigned tasks and expected results can be upgraded through transformational leadership. Operating results can be attributed to individual performance with performance metrics of the assigned tasks in time and without any deviations. The commitment to organizational performance in general should also not be overlooked. The integration of a system with clear rules for promotion by adjusting the pay or social benefits should also be taken into account. To properly utilize the synergic energy of the team, a clear framework of a unified corporate vision to achieve the mission of the organization is needed. It should be understandable to each one of coworkers and must have the moral framework ensuring its effective implementation to any person within the organization. Interpersonal relationships are a multilayered aspect in the corporate culture but their control is possible through achieving a balance between the emotional intelligence and the position of professional expertise. The orientation to people as individuals should be clearly addressed to the results achieved by them in the name of the common goal. Here is the first intersection of the domains "personality-relationships-organization-performance". According to these guidelines the implementation of management policies of every level should be adapted to the market realities where the company operates and to global trends. What is important to the organization is to have a clear concept of the target image and an accurate view of the image perceived by target audiences as well as its actions should be consistent with these of its partners and competitors.

The results of the survey can be used to elaborate the tools and their preparation to be implemented among a larger sample of statistically valid results. The group

of questions is to be supplemented by a few more related to respondents' perception of themselves as leaders, and to questions already existent to add those related to the mission and vision of the company and the transformational leadership in view of social features of the political and cultural periods.

An opportunity to implement the improved tools is through development of a virtual system for operational and strategic monitoring of leadership within the organization as a process: pro-leadership.

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# MODELS OF NONSTANDARD EMPLOYMENT IN UKRAINE AND THE EU

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**Abstract:** *Different models to manage non-standard employment have been discovered in this article. Role of the State Employment Service has been defined. Legal framework has been identified. Experience the EU and realities of Ukraine are described. Foreign experience has been analyzed from the position to use it into domestic practice. Perspectives of such implementation have been described.*

**Keywords:** *non-standard employment, models of employment, innovative forms*

## INTRODUCTION

One of the main components of the institutional environment that define the governmental policy on borrowing employment is public employment service and private employment agencies. Employment services are important in the adaptation of labor to the changing conditions of structural, technical and technological modernization of the economy. The scale of forced redundant workers in Ukraine were quite low, and the redistribution of labor bore heavily "unorganized" character (as workers who independently changing jobs differed typically greater mobility, better quality characteristics and therefore a better chance of getting a job and did not need services to promote employment services), the State Employment Service turned usually less competitive workers. These include representatives of many professions mass industrial labor, workers with sufficient high level of education and qualification, older people, retired people.

The use of non-standard forms of employment provides opportunities to attract the labor market of people with disabilities. The main effort of the state, in our view, should be focused on promoting employment of persons under the conditions especially remote employment using ICT, non-permanent (temporary, seasonal) employment might schemes outsourcing and leasing staff. The main directions of the active policy of non-standard employment has seen the development of entrepreneurship and self-employment in priority economic activities, particularly in the IT sector, as well as training and retraining of people employed by non-standard conditions. But the State Employment Service (SES) can capture the diversity of tasks in the context of globalization, increased economic instability; it is not always ready to respond flexibly to changes occurring in the labor market, characterized by job instability, proliferation of non-standard forms of employment.

Non-state employment agencies focus on the training of certain employees who are currently most in demand in the labor market. These agencies provide various training programs that are mobile enough conditions on demand for highly

qualified specialists, whose job carried out on non-standard conditions uncertain, remote, part-time employment contracts or civil law schemes outsourcing, leasing staff. Functions of the State Employment Service and private employment agencies are very similar, but their facilities are not completely identical. Private employment agencies engaged not only promote employment as search, selection or training of personnel for the employer (recruitment). The result of this activity is employment, mainly in non-standard conditions for small and specific level of training and qualifications, education and age of employees. The most important institutional function of private employment agencies are not only fighting unemployment and improving the employment structure as increasing the competitiveness of business in general because of the concentration of the leading companies of skilled professionals engaged in non-standard conditions preferred by service employers.

### **MATERIALS**

The use of non-standard employment contracts by civil law, the use of loan schemes work through the mediation of private employment agencies in Ukraine is a reality; the legal regulation of this issue to protect the labor rights of employees outside the box from unscrupulous employers is an absolute must. Part of the problem solves the Law of Ukraine "On Employment". According to Article 36 of that law, the State Employment Service will maintain a list of private employment agencies. At the same time, companies that provide mediation services and outsourcing obliged to provide information on the number of employed persons territorial SES. In addition, entities that hire employees to use their work to other employer in Ukraine, set more stringent conditions, such activities are carried out only under permit issued by the NHS.

Problems in the labor market create a lack of mechanisms for cooperation and interaction between the State Employment Service (SES) and private employment agency, database of vacancies and applicants are five times higher than the base of the SES and the information contained in a single information-analytical system SES limited vacancies with salaries and unattractive applicants from among the non-competitive people. This is a cause of mistrust seekers to the SES and competition between the SES and staffing agencies. At the same time, the activities of private employment agencies are under insufficient legal regulation that adversely affects the protection of the rights and guarantees of search engines. SES currently faces problems in economically developed countries in the 90s of the twentieth century, i.e. structure of unemployment; vulnerability of many workers due to lack of decent wages; reduce employment stability and opportunities for career development; lack of demand for training; increased spending on social security, which complicates the work SES. To overcome these difficulties it is possible to apply mechanisms leading management reorientation of the implementation of formal responsibilities for targeted customer service in order to provide quality services and ensure the development and introduction of standards of satisfaction with the services provided by employment.

The strategic focus of foreign SES was the introduction of quality management systems, providing for identification and analysis of customer needs, analysis and reconstruction of the interaction between the organization and customers, and developing and monitoring standards for services. To implement the quality management typically uses the following methods: customer-oriented planning; analysis of business processes; performance evaluation for the purpose of comparison or identification of targets for the performance-oriented customer. These approaches are interrelated. Success depends on the positive impact of reform workflow to achieve the targets, which are based on accurate assessment of customer needs. The strategic focus of foreign SES was the introduction of quality management systems, providing for identification and analysis of customer needs, analysis and reconstruction of the interaction between the organization and customers and developing and monitoring standards for services. To implement the quality management typically uses the methods: customer-oriented planning; analysis of business processes; performance evaluation for the purpose of comparison or identification of targets for the performance-oriented customer. These approaches are interrelated. Success depends on the positive impact of reform workflow to achieve the targets, which in turn are based on accurate assessment of customer needs.

Central to the concept of quality management occupy the planning and provision of services, customer-focused, through which it becomes the focus of the organization. SES European countries introduced various projects for better structuring of service relations with clients. These projects provide for rapid response to customer needs, the reform of the internal architecture of governance in the employment centers, improving communication skills of service workers and others. But the purpose of all these projects is the development and maintenance of certain standards to provide various services to customers. To analyze workflows SES used several models. Most is a series of international quality standards ISO 9000/9002, as well as models of the highest achievements of the European Foundation for Quality Management (European Quality Award (EFQM) model as national institutions, which to some extent reflects the requirements EFQM model. Some SES system use Balanced Scorecard "Balanced Scorecard (BS)". These models usually adapt to the needs of a specific employment service.

If the basis of the series of standards ISO 9000/9002 laid process approach, then the EFQM model results are measured with regard to customer satisfaction and employees, social impact and economic results. EFQM system typically includes the following elements: customer service; care staff; efficiency in use of resources. Meanwhile BS offers the tools needed to measure the effectiveness of implementation of relevant programs for specific indicators and strategy, adequate chosen objectives and projected performance.

Originally from the UK in 1991 introduced a charter of citizens and special assessment program, within which service providers awarded honors for compliance with standards of the Charter. Later these Charter and evaluation mechanisms have been implemented, including in Belgium, Greece, Ireland, Italy, Portugal, Finland,

France. In the UK the SES of 1997 adopted a new set of parameters: quality, service, achievement, partnership and evaluation staff.

In Germany, the reform of the Federal Employment Service of the Federal Ministry of Social Affairs (FES) was launched after the adoption in 1995 of a new organizational concept called "Employment Service Office 2000". The main principles of the reform of the entire German SES were: service orientation to customer needs, efficient and cost-effective services, promoting customer satisfaction and professional success of employees. Transformation of National Agency for Employment of France (ANRE) to modern service provider focused on the client, conducted under the "Agreement on Progress" (Sontrat de Progres) between it and the ministries of labor and finance. ANRE has developed its own model and built a national quality system, which was developed national service standards and national certification procedure of the regional and base employment centers for compliance with these standards. Each job center received a set of five guiding principles: first, the focus – customer satisfaction; Second, management control over the implementation of quality standards; Third, develop a plan of action to ensure quality of service and high performance; Fourth, mastering each employee center methods and tools to provide quality services, ensuring clarity relations with external organizations. Each regional center of employment for employers recognized the importance of their work and undertook significant commitments to them. With employers agreed parameters of the services they wish to receive and provide employment centers guarantee the quality of their provision. This attention to major customers gave good results that demonstrate high quality service ANRE.

Austrian SES for the implementation of quality management principles used as EFQM European model, which is based on the certification process ISO 9001. Employment Service was established directory services, which describes the basic services provided to customers (jobseekers and employers) with defined quality standards for these services. In some federal states (regional level) identified additional standards, such as client acceptance without waiting in line when the reception was stated in advance; providing first proposals to fill any new vacancies for 48 hours more. New standards introduced in every employment center activities after discussions with the staff of the center, the development of written instructions and information campaign among the workers to employment. Control of the results was the center for regional employment. The main focuses on what monitoring quality standards - a result of the annual customer surveys.

Ukraine has begun the process of reforming the social security system, linked to new requirements for organizations providing social services. The main aim of reform is to ensure their compliance with the needs of recipients and improve their quality and to create mechanisms to monitor the quality of social services. Now accept the concept of reforming the social service of the Ministry of Labor and Social Policy, which was approved by the Cabinet of Ministers of Ukraine of April, 13, 2007 No. 178-R. The concept involves the study and synthesis leading experience in the field of social services. State participation in the organization of social services in market conditions should ensure they get guaranteed under the

law and citizens' needs. For this done already a lot: the Law of Ukraine "On state social standards and state social guarantees", "On social services", approved by state qualifier social standards and norms.

### **CURRENT MODELS OF NON-STANDARD EMPLOYMENT**

Employment of new type is possible to realize in a number of developed countries that have chosen much earlier innovative model of economic development (USA, Japan, Western Europe). They are characterized by not only high technology culture in most states are already at the stage of post-industrial development and innovation strategy has become a major part of their economic policy. The immediate results of implementation of these strategies are reflected in the formation of a new system of employment relations: efficiency and flexibility of employment, intellectualization of labor, employment growth in high-tech sector institutes and innovative infrastructure, improving the quality of human capital and so on.

Studying national models of innovation and employment should take into account such aspects as the type of national system of innovation. We can distinguish the main types of national innovation systems: market (US and UK); Intercompany (Japan); Social Democratic (Scandinavian countries); Integration European (Germany, France, the Netherlands and Italy). Based on these innovative systems could build relevant national employment models. The division is rather arbitrary as any country can be attributed to a specific model has not in all respects. Thus, the German model of innovative employment for some parameters is close to the European mainland and vice versa is the Japanese model.

Liberal employment service model innovation (US, UK, Canada) has the following specifics: prevalence of flexible forms of employment. Although the probability of involuntary loss of employment 1.5-2 times higher than in European countries, unemployment duration is much shorter; decline in employment in manufacturing as acceleration "information society" and its corresponding growth in services; more active participation in work of all sections of the population and less duration of unemployment; high rates of working time; widespread teleworking; liberal employment protection legislation; large proportion of immigrants in the structure of the national workforce (e.g. in the US 14.8%, Canada 19.9%, Australia 24.6%); a significant gap in salaries between highly skilled and workers with low skills (especially in the US); lower prevalence of self-employment (e.g. US, Canada, it is 6,4-8,7% in the average level of the EU 13.1%).

For European model (continental, Scandinavian, South) employment as a whole is characterized by: functional flexibility of employment, which is implemented at the micro level and displayed a large prevalence of flexible forms of employment; lower rates of working hours, compared with the United States; Higher unemployment, including chronic; greater prevalence of self-employment; higher levels of underemployment (partial). Thus, the most common are part-time in the Netherlands (35.5%) and Switzerland (25.5%).

As part of the European model we can distinguish the South-European, represented Italy, Spain, Greece and Portugal. The model is characterized by significant employment dualism between traditional and modern sectors.

For the Scandinavian model theme is: a higher employment rate of the population aged 15-64 years; high level of education, which helps to reduce the level of structural unemployment.

Formation of Japanese employment model of innovation is closely linked not only to the formal labor market institutions, but mostly – with informal institutions, values, non-corporate ideals. They define paternalistic attitude of the staff of the company, high staff loyalty to the company, "quality circles", dependent on wages and seniority premiums are increasing, and the orientation of the labor market and intra-oriented social partners in cooperation. During the last decade the newly industrialized countries of Southeast Asia and China made a significant step in its technological development by making the transition to an innovative model of economic development. However, the model of employment in these countries has its own characteristics imposed by institutional and non-institutional factors. The basis of the economic success of China and India are long-term investments in human capital. Significant funds are invested in the development of higher education. In China, universities annually prepare 0.5 million scientists and engineers. In the US, this figure stands at 60 thousand people. In India, there are 2.4 million young finance and accounting professionals (for comparison: in the US the figure is 1.8 million); in China the number of young engineers is 1.7 million (in US 700 thousands). If we compare the development of innovative type of employment in OECD countries, CEE and CIS, for the latter characterized by the processes: a high rate of job destruction and creation of a new private sector. Moreover, if the share of traditional flexible forms of employment (work for futures contracts and in part-time work and self-employment) remains fairly stable employment growth is based on "unearned" contracts or work performed without a contract. In the CEE countries in recent years an increasing number of fixed-term employment contracts, but their share is still lower than in the EU countries (10%). So, we can say the growth of the informal part of flexible employment is observed. Considering the Strategy for Sustainable Development "Ukraine-2020" can be seen certain trends.

## **CONCLUSIONS**

The main factors of the innovative transformation of employment is a multi-labor competition, employers and legal forms of cooperation; constructive trust between social partners; deepening division of labor in the old and new technologies; specialization of scientific engineering and technological capabilities with access to relevant global certification of personnel; optimization of financial mechanisms to attract invention and rationalization; effective support for business innovation; own activity of social innovation; national model of public policy innovation transformation of employment; removing barriers to investment appeal of human capital development and its implementation of new forms of employment. It is assumed that most likely social innovations in employment in the future will be: public-private partnerships to create jobs; innovative forms of employment flexibility combined with social technologies of surveillance, recording and registration status, employment conditions and safety; spread of outsourcing, leasing and outstaffing employees; modernization of social dialogue from the classic formula

"state – business – trade unions" in a broader format of "state – business – society"; transition from the policy of social support to employment policies to active flexible employment protection; comprehensive continuous professional orientation program; innovative technology transit youth into the labor market; technologies to promote employment and social and professional rehabilitation of unemployed; program the active involvement of economically inactive population; voucher technologies in vocational training; stimulate professional and territorial mobility; new forms of circular migration and shift; innovative jobs, telecommuting based on online communications, modernized home-based work, co-working.

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# SECURITY PROVISION MECHANISM OF THE INDUSTRY INNOVATIVE DEVELOPMENT UNDER CONDITIONS OF NATIONAL ECONOMICS CLUSTERING: FUNCTIONS AND PRACTICAL VALUE

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**Abstract:** *The notion of the security provision mechanism of national economics and its parts were characterized. The types of the security provision mechanism of national economics were outlined. The definition of security provision mechanism of the industry innovative development has been done. The properties of the security provision mechanism of the industry innovative development were systematized. Based on the literature synthesis it is defined functional and structural security mechanism of innovative industry's development. Tiered approach to security of innovative development of industry has been considered. Approaches to study the mechanism of providing innovative industrial development have been generalized.*

**Keywords:** *mechanism, economic security, innovative development, national economy, clustering*

## INTRODUCTION

The activity of any economic system requires measures that would ensure their orderly movement fulfill their functions, course system interaction and achieve goals. Such role of economic processes includes mechanisms under the watchful eye of researchers from various fields of science, economy, psychology, biology, and engineering sciences and so on.

According to the prevailing idea in the scientific community, in the technical sense, a mechanism should be understood as a system of bodies or parts of the motor that drives the other elements. It is used for power transmission and transformation of movement. The economic concept of "mechanism" understands it as a system (a set of interrelated elements-the organizational structures, forms and methods of management, regulations, economic incentives, etc.) that provides performance of the functions, implementation of economic laws, ensures economic activity entities. However, it should be noted that such a system is regulated by specific instruments, means and methods of public administration [1].

Thus, the security mechanism is part of the overall mechanism of economic, political, institutional, legal and economic system. This allows describing it as a set of interrelated elements that ensures no threats in the defined field of activity and in accordance with the defined development strategy and goals (known to have goals and means of implementing the strategy embodied in the task).

## MATERIALS AND METHODS

In economic literature [2] carefully researched and thoroughly described definitions, purposes and components of the mechanisms of economic security and its separate aspects. Thus, the mechanism of economic security is offered and considered as a whole and in terms of providing social, environmental and financial components of security. Under each of them should be understood the system (combination of organizational, economic and legal measures and means consistent with the methods and instruments of organizational, administrative, economic activity, organizational structures, incentives, etc.), which ensures the absence of abuse by their detection, prevention, neutralization, etc. and to achieve its strategy and objectives (such as to improve safety, eliminate the consequences of threats, etc.).

In accordance with the defined hierarchy concept of security of the national economy, given mechanisms should be complemented by foreign trade, investment, innovation, energy, demographic, technological elements of economic security. Their components and functionality specified in accordance with formed above definition (system which ensures no threats in the specific field of economic activity through their detection, prevention, neutralization, etc., and to achieve its objectives and strategies). It meets the basic criteria that characterize the category of "mechanism" [1]. This definition includes: 1) a set of levers that affect the achievement of goals and their connection to the system; 2) hierarchical structure (a set of organizational, economic and legal measures and complies with methods and tools of organizational, administrative, economic activity, etc.); 3) compliance with development strategy and objectives that contribute to its achievement.

Let's look on details of security mechanism of innovative development of industry. According to the definition, it can be considered as a system (set of organizational, economic and legal measures and means consistent with the methods and instruments of organizational, administrative, economic activity, organizational structures, incentives, etc.), which provides no threat innovative security through their identification, prevention, neutralization, etc., and to achieve its strategy and objectives. Like any mechanism, security mechanism of innovative development of industry has certain properties that should be considered in its formulation and in operation. According to this, the properties of the investigated mechanism can be placed in two groups: the formation mechanism and functioning. Thus, appropriate level of innovative industrial development safety can be achieved by different approaches to the provision of such a mechanism. Literature review and generalization of practice of institutions providing economic security of industry allows to determine these areas of considered mechanism above: functional, structural, systemic, resource and tiered.

Functional approach to study mechanism of innovative security of industry points to the stages of the mechanism that reflects the basic features needed to implement. According to the mechanism of management of economic security, such stages are: formation of goals and stages of management of economic security, information security evaluation of economic security, diagnostics threats to economic security and development of measures to stop their actions determine the amount of preventive costs of their implementation, the prediction of economic security, application of measures designed to ensure economic security, providing feedback [3]. In a

simplified form, function of the mechanism of economic security is the diagnosis and evaluation of financial, economic, operational and organizational criteria for the purpose of early identification of sources of species and stages of dangerous manifestations (threats); timely application of relevant listings crisis (stabilization) measures identified neutralize threats; forming a system of recommendations and measures to enhance economic security [4]. Thus, it is necessary to pay attention to information providing management of economic security, forecasting of the indicators and the indicators that characterize the level of economic security and measures to ensure the formation of economic security and analysis of the results of their implementation [5].

With the prediction of values indicators and the formation of measures linked to normalization steps. During its realization should make the calculation of threshold values of maximum financial and socio-economic indicators (indicators), the value of which affects the level of economic security, and the excess could provoke a crisis (lack of economic security status) [6].

Since the action of the mechanism ensuring the economic security associated with the development strategy of the respective spheres of economic activity, for its effective operation should provide support for its implementation processes in the formation of measures to improve safety [7].

Thus, summarizing the stages above and taking into account the relevant factors of performance allows for a functional approach to determine a security mechanism of innovative development of industry (as part of the mechanism ensuring the economic security): 1) forming goals and objectives of safety management of the mechanism innovation development; 2) providing informational security management of the innovative development mechanism; 3) evaluation of economic security, calculation of maximum threshold values of financial, social, economic and other indicators, which value affect the innovative development safety; 4) diagnosis of security threats of innovative industrial development; 5) developing measures for prevention, neutralization and eliminating security threats of innovative industrial development; 6) determining the amount of the preventive measures costs, forecasting economic security indicators; 7) application of the developed system of measures for security of innovative development, review the results of their implementation; 8) providing feedback. Structural approach to study the innovative security mechanism of industry reflects the composition of the system's elements. If the functional consistency lies in the coverage of mechanism of all actions, operations, management cycles and business processes, then structural regularity of such mechanism indicates a record of all the elements (fields of economic activity, jobs, institutions of legal protection) using corresponding system construction. Thus, structural mechanism to ensure the safety of innovative development includes organization that provides relations with businesses, government agencies, etc. consists of an array of elements, which provide specific tasks.

These blocks can be considered: 1) means, instruments and methods for security of industry's innovative development, the incentives of government and so on; 2) the system of reasonable financial and administrative (including social) constraints and evaluation criteria, while ensuring the safety of innovative industrial development;

3) managing process as a sequence of stages completed management activities (sales management functions, application management, decision-making), which provide impact control system on controlled to ensure the safety of innovative industrial development; 4) organizational structure.

Consideration of views on structural content of mechanism for ensuring innovative security suggests the following. First, we should separate structure as a set of elements of the mechanism of collection of objects that they have at their disposal. To the second referred financial instruments, legislative and regulatory framework and others. Secondly, to ensure the mechanism, the implementation of its functions and system interaction should use resources.

In accordance with the abovementioned, it should be separate resource approach to study the mechanism of innovative security of industry. It includes: information (including regulatory and legislative), labor, financial and logistical support of the system to ensure safety innovation. As you know, the mechanism of ensuring the economic security can be viewed at the strategic, tactical and operational levels [8]. Strategic management level associated with the definition of the strategy of economic security. Tactical level involves the formation of ensuring the economic security tactics and occurs in daily management processes at the operational level to implement the strategy of economic security. Thus, the function of the mechanism of innovative security can be differentiated by levels.

Tiered approach to security of industry of innovative development consisting of three components:

1. Strategic level security of the mechanism of innovative development involves coordination of the mechanism functions of the security strategy of innovative development, which involves the elimination of contradictions, reconciling the interests of stakeholders, goals and objectives of formation mechanism.

2. Tactical level security of the mechanism of innovative development involves solving the problems related to the elimination of threats to themselves or prevents their impact on innovation sector. At the tactical level should be developed complexes of preventive measures.

3. At the operational level security of the mechanism of innovative occurring operational processes, innovative security provided by liquidation of consequences of threats and implements a number of measures associated with it.

Systemic approach to study the mechanism of innovative development security associated with the properties mechanism that can be attributed to its open system (which interacts with the external environment). Under this approach, the mechanism will include three components: Logon; internal component; logoff [9].

## **DISCUSSION AND CONCLUSION**

Taking into account the properties of the formation and functioning of the mechanism to ensure the safety of innovative development of the industry, it is reasonable functional-structural as well as system-level and structural approach to provide security. In terms of national economy' clustering it is highlighted the special interaction of the components of the innovative development security mechanism

of the industry (information, diagnosis of innovative safety, development and application a system of measures for prevention, neutralization, elimination the security threats of the innovative development of the industry, etc. that will be applied not only at the enterprises, innovation centers, community organizations, but also in the clusters.

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# DEVELOPMENT AND IMPLEMENTATION OF CONVERGING TECHNOLOGIES IN UKRAINE UNDER CONDITIONS OF A NEW INDUSTRIAL REVOLUTION

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**Abstract:** *The paper analyses the concept of convergent technologies development as a key factor in solving global problems in the new industrial revolution. The main trends in the development of convergent technologies identify advanced manufacturing technologies; the most promising for the enterprises in developed countries are defined. Priority areas for development and their implementation into the economy of Ukraine are identified. Additionally, scientific and methodical approaches to the creation of institutional support mechanism for the development and implementation of convergent technologies in Ukraine in conditions of a common research area ration with the EU are reflected in this paper.*

**Keywords:** *convergent technologies, new industrial revolution, model and scenarios of scientific and innovative development, institutional support mechanism, solving global problems*

## INTRODUCTION

The world economy develops by replacement of one technological way with another. Change of the next technological ways is always connected with emergence of a number of basic innovations "inside" the previous way. They will later become the core of the new technological way and will lead to rapid increase in efficiency of economy: it becomes less material and energy intensive, costs are reduced, new human needs appear.

At the end of the XX century it became clear that in any field of human activity progress in the next 10-20 years will be connected first of all with atomic and molecular constructions. Convergence of nano, bio, info and cognitive (NBIC) technologies means their mutual influence and mutual penetration, when these areas merge into a single area of scientific and technological knowledge, which will inevitably lead to revision of traditional ideas of such fundamental values as life, mind, people, nature, life.

Besides, after the crisis of 2008-2009 almost all developed countries revise their views on the role of industry as a major tool for economic growth and perceive convergent technologies (nano (N), bio (B), info (I) and cognitive (C) technologies or NBIC-technologies) as a main tool, which can help to solve global problems in the nearest future and provide considerable development of social sphere to a qualitatively new level. Therefore, since 2011 government policy in these countries

is more clearly formed and it is aimed at the development of key factors of the fourth industrial revolution, and also it is aimed at solving the problem of matching the level of scientific and innovative potential to those requirements which are made by new industrial revolution and emerging technologies of the XXI century. This problem has acquired special relevance for the modern economic development of Ukraine in terms of association with the EU.

## **MATERIALS AND METHODS**

The problem is investigated by many scientists, including M. Roco, W. Bainbridge, J. Rifkin, S. Jobs, Th. Kurfuss, S. Glazyev, V. Inozemtsev, V. Knyaginina, I. Degina, including also Ukrainian scientists such as V. Heyets, V. Seminozhenko, M. Kyzym, B. Kvasnyuk, V. Khaustova et al. At the same time, development and impact of converging technologies under conditions of a new industrial revolution requires a further study.

## **RESULTS**

Technological progress has driven dramatic increases in industrial productivity since the Industrial Revolution. The steam engine powered factories in the nineteenth century, electric power and division of labor led to mass production in the twentieth century and the use of electronics and IT led to further automate production in the 1970s. Now we are in the middle of the fourth wave of industrial revolution: the rise of new digital industrial technology known as Industry 4.0, a transformation that is powered by such areas as nano-materials and materials for growth technologies, nano-electronics and nano-photonics, nano-system machinery, nano-factories and 3D-printing, genetic engineering, molecular biotechnology, cloud computing and multidimensional modeling, the Internet of things, artificial intelligence [1-5]. The combination of "Industry 4.0" technologies with factors of the advanced production system Smart TEMP (T-technology; E-environment; M-manufacturing; P-products) creates new markets and industries, promote growth of labor productivity, increase in competitiveness of certain sectors and national economies. It is proved that in the leading countries there is a close link between priorities of scientific and technological researches, innovation and advanced production technologies. However, since 2013-2014 almost all these countries have adopted state programs to support such a link and such convergent projects and technologies are properly funded [6].

In 2015 the reputable international association KPMG provided an outlook of emerging technology trends in annual publication "The Changing Landscape of Disruptive Technologies", which is presented in *Table 1*.

As we can see, cloud technologies are ranked highest in most regions. The connected rise of cloud, Internet of Things, mobile and D&A will continue to drive unprecedented business transformation opportunities in the enterprise market. Robotics and artificial intelligence continue to make progress as key technologies changing enterprise markets in the next three years.

**Table 1****Advanced manufacturing technologies that will have the greatest impact in driving business transformation for enterprises till 2020 (% of total advanced technologies)**

	All world	USA	China	Japan	ASPAC	EMEA
Cloud technology	11	13	9	13	10	10
Internet of things	9	8	14	0	9	10
Data and Analytics	9	13	8	3	10	6
Mobile platforms and apps	7	5	5	7	7	10
Robotics	6	4	8	3	7	8
Cyber security	6	10	5	7	4	5
Biotechnologies/digital health/ health care IT	5	8	3	3	4	4
3D-printing	5	4	5	7	6	5
Artificial Intelligence / Cognitive computing	5	8	9	23	6	3
On demand marketplace (e.g., Uber, Airbnb)	5	5	3	0	4	5
Social networking / collaboration platforms	4	4	1	7	3	5
Digital currency platforms (e.g. bitcoin, payment service providers)	4	5	5	3	6	4
Biometrics; gesture, facial, voice	4	4	12	3	6	3
Virtual Reality / Augmented Reality	4	1	1	3	5	4
Nanotechnologies	4	1	2	3	4	5

Source: developed by authors according to [7]

According to the World Bank, which annually creates the ranking of countries according to two indicators, we can see: 1) the ranking of countries in terms of expenditures on research and development to GDP; 2) the ranking of high-technology exports in structure of manufactured export of the country [8-9]. These indicators highlight interrelation between money spent by countries on science and how much they earn on the results of these researches. Indicators of research and development expenditure to GDP of some countries for 2006-2014 are given in *Table 2*.

**Table 2****Research and development expenditure for 2006-2014 (% of GDP)**

Country	Years								
	2006	2007	2008	2009	2010	2011	2012	2013	2014
World	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	...
Republic of Korea	2.8	3.0	3.1	3.3	3.5	3.7	4.0	4.1	4.3
Japan	3.4	3.5	3.5	3.4	3.3	3.4	3.3	3.5	3.6
United States	2.6	2.6	2.8	2.8	2.7	2.8	2.8	2.7	...
EU	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.03
Germany	2.5	2.4	2.6	2.7	2.7	2.8	2.9	2.9	2.9
Poland	0.6	0.6	0.6	0.7	0.7	0.7	0.9	0.9	0.9
China	1.4	1.4	1.5	1.7	1.7	1.8	1.9	2.0	2.0
India	0.8	0.8	0.8	0.8	0.8	0.8	...	...	...
Russia	1.1	1.1	1.0	1.3	1.1	1.1	1.1	1.1	1.2
Ukraine	0.9	0.9	0.8	0.9	0.8	0.8	0.8	0.8	0.7
Kazakhstan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	...

Source: developed by authors according to [8]

Table 3

**High-technology exports for 2006-2014 (% of manufactured exports)**

Country	Years								
	2006	2007	2008	2009	2010	2011	2012	2013	2014
World	20.8	17.5	16.7	18.2	17.6	16.5	16.8	17.0	17.1
Republic of Korea	32.1	30.5	27.6	28.7	29.5	25.7	26.2	27.1	26.9
Japan	30.1	27.2	25.9	21.5	19.9	18.1	17.8	16.8	16.7
United States	22.1	18.4	17.3	18.8	18.0	17.5	17.7	17.8	18.3
EU	18.5	14.0	13.6	15.2	15.4	15.0	15.5	15.6	15.4
Germany	17.1	14.0	13.3	15.3	15.3	15.0	15.8	16.1	16.0
Poland	3.7	3.0	4.3	6.1	6.7	5.9	7.0	7.8	8.7
China	30.5	26.7	25.6	27.5	27.5	25.7	26.2	27.0	25.4
India	6.1	6.4	6.8	9.1	7.2	6.9	6.6	8.1	8.6
Russia	7.8	6.9	6.5	9.2	9.1	8.0	8.4	10.0	11.4
Ukraine	3.4	3.7	3.3	5.6	4.3	4.4	6.3	5.9	6.5
Kazakhstan	20.9	21.4	21.9	29.9	34.2	24.7	30.0	36.9	37.2

Source: developed by authors according to [9]

Table 3 shows that the Republic of Korea (~ 27%), China (~ 26%), Japan (~ 18%), the US (~ 18%), Germany (~ 16%), EU (~ 15%) have the highest percentage of high-tech exports and spend on research and development from 2 to 4.5% of GDP. However, countries that buy ready-made designs and patents such as Kazakhstan (~ 36%), India (~ 8%), Poland (~ 7%) have a high percentage of high-tech exports and spend on its own research and development only 0.2%, 0.8% and 0.9% respectively. At the same time Ukraine spends on science on average 0.8% of GDP (that is 4 times less than in developed countries) and its high technology exports is ~ 5-6% of manufactured exports (that is 5 times less than in Korea and China and 3 times less than in the EU). The share of total Ukrainian high-technology exports in the world market in 2014 was 0.07%, including aerospace industry with 0.38%, pharmaceutical with 0.05%, office equipment with 0.01%, communications with 0.06% and industrial equipment with 0.02% (that are almost insignificant volumes) [10].

Thus, Ukraine lags far behind the leading countries in the market of high-tech production, and this gap continues to increase during 2012-2014 [10]. In order to increase the production and high-technology exports, it is necessary to concentrate funds and measures of the state support on the priority areas of development of advanced manufacturing technologies based on its own unique scientific and technological groundwork, and to start buying ready-made projects and patents and produce high-tech products now (as it is done by China and Kazakhstan) [6].

The practice of setting national priorities of science and technology development in Ukraine for 2004-2015 shows that there are a lot of them to concentrate small amounts of budget funds for the really important areas that have to solve general and specific problems that Ukraine faces with. Based on the analysis of the results of state programs forecasting scientific and technological development of Ukraine, it is found that the critical technologies which are selected by groups of experts meet the strategic priorities of innovation development of the country during this period,

namely: nanotechnologies, biotechnologies, microelectronics, new materials and stainless steel. At the same time the strategic innovative priorities of Ukraine which are officially approved and financed practically don't correspond to innovative priorities and the advanced production technologies which are the focus of scientific, technical and innovative policy of the developed countries (except the second and fourth priority) [6].

According to the results of Foresight of Ukrainian economy that was carried out in 2015 it was found that (1) agrarian sector and military industrial complex have high possibility of implementation; (2) creation of new substances and materials and nanotechnology, information and telecommunication technologies, energetic, high-tech engineering have medium possibility of implementation; (3) development of sciences about the person, biomedical engineering, cellular medicine and pharmacy have low possibility of implementation in 2020-2025 [11].

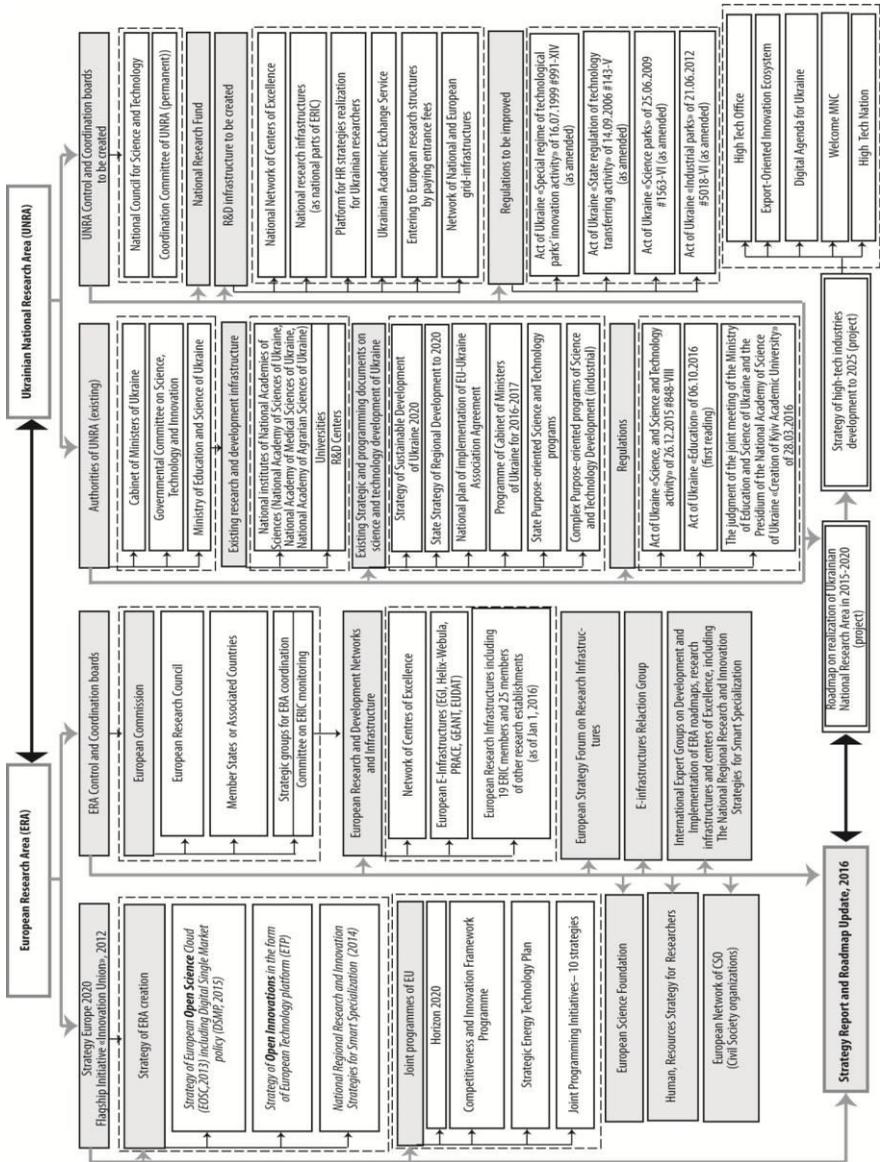
At the same time, studies need better formalization and certain priorities need better objectivity through the use of mathematical methods and information technologies. It is proved that determination of potential of convergent technologies development in Ukraine becomes one of priorities of scientific and innovative development of the country under conditions of new industrial revolution and Association with the EU.

To implement the provided advantages of the convergence of knowledge, technologies and society through the use of converging technologies, the World Technology Evaluation Center (WTEC) proposed such mechanism as creation of national CKTS-initiatives that can be organized as a group of centers in educational and research institutions, technology platforms, programs and organizations and appropriate communication and coordination with public authorities [12].

Meanwhile it will be necessary to direct the government program of convergence to those areas which are of national interest, namely: (1) convergent revolutionary technologies for personal services; (2) cognitive society and lifelong wellbeing; (3) diversified production based on NBIC-technologies; (4) convergence in biomedicine; (5) improving human potential; (6) sustainable earth system; (7) assistance to development of creativity, innovation and analysis of decisions in the sphere of value added; (8) creation of the central authority on convergence of knowledge and technologies which will focus on approaches to convergence, as well as planning for priority convergence platforms (for example, for government programs on science, technologies and investment planning) [12].

Since 2012 the EU countries and associated countries became participants of development of the European Research Area (ERA) which is based on three priorities as Open Science, Open Innovations, and Open to the World [13].

*Figure 1* shows the authors' view on reconciliation of ERA Roadmap 2020 and the Roadmap on the UNRA realization on the assumption of ERA's implementation in Ukraine by 2020. It is proved that for implementation of Ukrainian National Research Area (UNRA), Cabinet of Ministers, Ministry of Education and Science of Ukraine, and also National academy of Sciences of Ukraine should [13-15]:



**Figure 1: Reconciliation of ERA Roadmap and the Roadmap on the UNRA realization on the assumption of ERA's implementation in Ukraine by 2020**

Source: completed by authors

(1) make the plan of formation of UNRA which can be integrated into ERA by parts and in general; (2) coordinate actions of NAS of Ukraine with the National Academy of Medical Sciences (NAMS) and the National Academy of Agricultural Sciences (NAAS), and with public scientific organizations for development of Strategy of Reasonable Specialization of Regions of Ukraine and integration into the ERA through implementation of the ERA Roadmap 2015-2020; (3) develop the mechanism of realization of the National Action Plan for implementation of the ERA Roadmap 2015-2020 for innovative development through (A) Open Science; (B) Open Innovations; (C) the Strategy of Reasonable Specialization; (D) support from the EU through technical assistance on implementation of the ERA agreed national priorities; (4) create the Council of the EU – Ukraine for reforming of science and innovation system of Ukraine involving the main actors of ERA and UNRA for step-by-step implementation of the ERA Roadmap 2015-2020; (5) to hold the Forum for presentation of the National Action Plan for implementation of the ERA Roadmap 2015-2020 with an involvement of the main actors of ERA and UNRA, including ESFRI, ERIC Consortium and European Institute of Innovation and Technology. First of all, *Figure 1* shows that it will be necessary to create during the implementation of the Ukrainian Roadmap: (1) National Council for Science and Technology (NCST); (2) Scientific Committee of NCST as the basis of Coordination Committee of UNRA; (3) National Research Fund; (4) basic elements of research and development infrastructure, including (a) National Network of Centers of excellence; (b) National research infrastructure as Ukrainian parts of ERIC, as well as entering to European research structures by paying entrance fees; (c) Network of National and European grid-infrastructures; (d) Platform for HR Strategies realization for Ukrainian researchers; (e) Ukrainian Academic Exchange Service and others.

## CONCLUSIONS

Identification of research priorities of convergent technologies in Ukraine has unsystematic character and does not meet the priorities of funding. Development of the *Strategy of development of converging technologies in Ukraine* according to global and specific national problems, creation of the *National program of development of converging technologies in Ukraine* which will have clear priorities of scientific research, securing the financing, organizational support of the state, mechanisms of implementation in a business sector, performance criteria of interventions and accountability of executives to the government (for government funding) and to businessmen (for extra budgetary funds) is necessary. It is proved that there is a need for creation of the *Advisory Work Groups* that will include both employees of NAS of Ukraine and from other scientific institutions and independent experts who have some experience in a certain area of research, to analyze the current implementation of the programs of converging technologies, to make forecasts and clarify priorities of converging technologies development in Ukraine.

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# THE MAIN DIRECTIONS AND PERSPECTIVES OF TOURISM' DEVELOPMENT IN AZERBAIJAN

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**Abstract:** *Tourism and technological progress became very popular since XIX century. Tourism started to be a part of people's life in global world. Tourism is considered as one of the most income based service sectors. Its development can bring many advances with itself to the economy. Today many countries earn most of their budget income from tourism sector. Tourism is not just only an income source, but also a helper for strong international relations. Development of tourism strengthens the relations between nations, cultures and increases socio-economic business activities. The era of education and technology makes life much easier and increases the need for travelling. Tourism is a luxury good, it means very costly to attain. But today it becomes easier to travel with the help of low budget tourism (the offer of low service prices by companies).*

**Keywords:** *tourism sector, multiculturalism, tolerance, international tourism market, sustainable development, international community, integration*

## INTRODUCTION

Tourism has a huge impact on the development of countries' economies as a complex. Increasing economic activities are supported by tourism service sector. Tourism is getting more and more attractive for the solutions of socio-economic problems. Increasing investments towards tourism sector benefits many countries' economies. In Azerbaijan, tourism has also become one of the main service sectors. Generally, tourism started to raise its importance in Azerbaijan after its independency. This sector has been prioritized by the government and many programs have been made in order to develop tourism in Azerbaijan. As a result of all these things, the flow of both foreign and local investments has been put to Azerbaijan.

The purpose of our research is analyzing the current situation of tourism in Azerbaijan and finding solutions for the development of the sector.

Researching of the development of the sector below statements should be done: 1) tolerance and multiculturalism in Azerbaijan; 2) research on the current situation of Azerbaijan tourism; 3) governmental policy and programs for tourism' development in Azerbaijan; influence of tourism on the country's regions; developing methods of the tourism sector.

## MATERIALS AND METHODS

The subject of our research surrounds the development perspectives of Azerbaijan tourism system. The object of the research is the tourism sector in Azerbaijan as one of the priorities of the development in country's economy, current situation, problems, and analyzes on development perspectives. The

research work was carried out on the basis of systemic methods and statistical analysis, logical generalization. The study is limited and requires further research.

## RESULTS

As a multinational and multi-confessional state, the Republic of Azerbaijan conducts a policy of full integration into the international community, attaches great importance to the development of mutual relations, the relations of bilateral and multilateral cooperation in the international arena. The religious policy of the government of Azerbaijan is based on building a democratic state, the principle of regulating relations between the state and religion in the national-religious and legal dimensions.

Azerbaijan is situated at the crossroad of East and West and it is a multicultural society. There are over 40 minorities and ethnic groups that live in Azerbaijan including Tallishs, Avars, Sakhurs, Ukrainians et al. For centuries, Azerbaijanis have lived in peace and harmony with people from many different religious and ethnic groups. Azerbaijan has been listed as one of the top five most tolerant countries in the world. This fact has led many to believe that Azerbaijan can serve as a good example of ethnic and religious tolerance for the world full of intolerance. Azerbaijan is a country where ethnic minorities can enjoy the same rights as the dominating ethnic Azerbaijanis, including being taught their education in their native language. Although the population of Azerbaijan is just nine million people, it has an inspiring diversity of religions that coexisting in peace with the Muslim Azerbaijani majority, awarding its praise by the European Parliament. Azerbaijan definitely sets a progressive and positive example of a multicultural world.

It is an honor that in Azerbaijan national solidarity and friendship between nations exist whilst modern world faces religious and national clashes, sectarian conflicts and interstate distrust. Independent Azerbaijan is being loyal to multicultural traditions and always continues to support development of dialogue of cultures, protection of cultural diversity and regulation of reciprocal relations among civilizations. Cultural diversity is undoubtedly a factor which can considerably improve the tourist attractiveness of a given region and, at the same time, become the impulse of creating its tourist function and promoting the area for the widely understood cultural tourism. Multiculturalism, understood as a coexistence of many cultures, can considerably increase the tourist attractiveness of a given area, at the same time becoming an impulse of creating a tourist function and promoting the area for cultural tourism in a broader sense.

In Azerbaijan, there are over 6000 historical monuments. Among them, there are places that remain from old Islamic, Zoroastrian, and Christian periods. But most of them need restoration for attracting history lovers. One of the best historical places to go is Gobustan with its pictures on rocks. It is one of the proofs for the historical past of Azerbaijan.

A big part of the great Silk Way had passed through the territory of Azerbaijan. On this old trade way, there are still remains of the history as karvansarays,

hammams, fortresses, worship places, kasrs and so on. Their beauty of structures, connections with history let Azerbaijan known as one of the old places of the world and history tourism center.

Most of the historical places are not in good conditions for tourism purposes. Unfortunately, many of them were destroyed. Long time of staying out of attention has made them lost their appearances. Also, some historical places have been destroyed by the time of reconstruction of Baku city. Restoration of all these old monuments will attract many tourists to the country. Azerbaijan's historic buildings such as Ichhari shahar, Maiden Tower, Shaki Khan sarayi, Momune Xatun Magbarasi are protected by UNESCO. Recognition of their historical past by world organizations is very important for the development of history tourism in Azerbaijan. Accepting the geographical importance of Azerbaijan, being on the Silk Way has a huge impact on east-west, north-south economic relations. This is also essential for tourism relations with other countries. Business relations from tourism sector are increasing day by day because all these are advantages of Azerbaijan.

Problems of tourism in Azerbaijan can be solved with many ways as right governmental decisions. Regulations on these issues will solve all the problems quickly and will raise the speed of development in this sector.

One of the bad things of the sector in Azerbaijan comes from the seasonal character of tourism relations. Few days of tourism period make an impact on pricing too. Prices of touristic places are high because of the seasonal tourism in regions. Tourists always prefer to go to cheap countries. That's why solutions on 4 season's tourism in Azerbaijan will help to suggest cheap prices for quality tourism. This will increase international tourism in Azerbaijan.

Analyses on tourism potential of Azerbaijan let create below international tourism sectors: 1) Winter tourism; 2) Golf tourism; 3) Health tourism; 4) Education tourism; 5) Cave tourism; 6) Ethnographic tourism; 7) Rafting tourism et al.

The best parts of Azerbaijan tourism that can be developed with investments: 1) Mountain-sport tourism; 2) Resorts, sanatoriums; 3) Tourism complexes; 4) Health tourism centers; 5) Hotels in regions.

Some several precautions need to be done for the promotion of tourism service in Azerbaijan: 1) Informing right customers with the potential of Azerbaijan tourism; 2) Providing security and comfort for the tourists; 3) Helping tourists while they are in the country (tourism help centers).

Main ways of increasing the existed potential of country tourism in Azerbaijan are to pursue technological progresses, innovations, new trends in tourism, finding efficient ways of using resources and so on.

Tourism, travelling and investment are connected one another. Investment for tourism happens after business travelling. Business tourism activities include exhibitions, meetings and attending conferences. In business tourism, individuals from government and non-profit organizations engage in similar activities. Business tourism means travelling, spending money, staying abroad and being as a part of international trade. The average business tourist is wealthier than an average leisure tourist and is expected to spend more money. Business tourism can

involve individual and small group travel; destinations can include small to larger meetings, including conventions and conferences, trade fairs and exhibitions.

Policy of tourism in Azerbaijan supports entrepreneurship in tourism market. Government gives financial help as credits to investors to stimulate private tourism sector. Also, government's legislative mechanisms protect the business activities in tourism market. Giving licenses to the objects of infrastructures, stimulating foreign tourism, lightening visa and custom regimes, are parts of the policy of government.

Qualification in tourism means to be one of the best for a factor in this service sector. One of the aims of government policy is to provide the qualification in tourism service sector. Competition in the market enhances this process. Tourism in the regions of Azerbaijan can increase the development of their socio-economic conditions. Competition also helps to decrease the prices for the services and to increase the numbers of tourists. Decreasing prices will enhance the demand for tourism. Complex programs of government will create sustainable development and integration with other countries. Tourism is a very effective tool in those programs to integrate to other countries with economic and cultural relations.

## **DISCUSSION AND CONCLUSION**

Azerbaijan's future in tourism is so bright because it has enough potential for the development of the service sector and it is supported by governmental organizations. Some suggestions are given below for the development of the tourism in the country:

1. Investment is very essential in tourism service sector. Making the tourism potential of Azerbaijan to be known, listing investment needed tourism places, creating good conditions for tourism business activities are important issues for the development of this service sector.

2. Today, main income to the economy of the country comes directly from oil sector. The role of oil sector in the economy in Azerbaijan can be replaced easily with tourism. Increase in the investments for not oil but non oil sector will enhance the market share of tourism. Tourism service sector can bring additional income to the country with using investments and internal resources efficiently. But firstly, persuasion on future of the tourism must be created in both foreign and local investors.

3. For the development of tourism, it is inevitable to create modern tourism legal foundation system that is close to international standards. Increasing international cooperation, lightening visa, tax, custom regimes with tourism countries can help to make the tourism sector broader.

4. Maintaining international relations with the world organizations can help to solve sector's problems and increase partnerships in this business field. Today, being a part of those international organizations creates many business opportunities for the economic development of the country. Increasing cooperation activities with international organizations and using their experiences will enhance the effectiveness of tourism service.

5. Azerbaijan's regions have a great role in the development of the country. Properly using tourism potential and maintaining free economic zones in the regions will increase their share in the economic growth.

6. One of the problems of tourism service sector is the lack of qualified personnel. It affects negatively to the tourism in the regions of the country as well. Trainings and courses by specialists of the service sector can solve these problems and increase the quality of the tourism sector.

Level of tourism differs from region to region. Most recently Europe is leading in the list. The main reason for that is the development of tourism industry and easiness of visa requirements among European countries. Recently, Asia more specifically southern-east Asia and Oceania started to rise very quickly in tourism sector. It is the nature and potential of those countries that give them an opportunity to be as tourism centers in the world.

Azerbaijan is situated between Europe and Asia with its historical past and modern features. Location and nature make a huge sense for the development of tourism in Azerbaijan. The combination of both European and Asian spirits makes Azerbaijan much more attractive for tourists as any tourism destination. The development of qualified service sector will lead Azerbaijan to be one of the world's best business and trade centers with good tourism atmosphere.

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## THE MODERN BIAS OF THE ECONOMY OF UKRAINE

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**Abstract:** *The article marks the modern tendencies of the economy development in Ukraine. It determines that for the first time since the depression and the crisis years the Ukrainian economy has demonstrated positive growth indicators. It indicates that the capital investment was concentrated in industries with better access to liquid resources from internal or external markets also marks the strong growth of investment in the sectors related to the communal sector. The supply of electricity, gas, water, sewerage and waste management, and mining are the industry leaders in the volumes of investment. The sphere of consumption has also played the role of a driving force of economic growth, but the impact of foreign trade was negative. It is established that the recovery of growth in the industry had enough sectoral character, and the main engine of output growth in the sector was the external factor. The agricultural sector should also associate the trend of production stabilization. It is proved that the economic recovery has simplified the achievement of macroeconomic stability, which led to the advancement of Ukrainian banks and a slow recovery of positive dynamics of the population's real incomes. There has been a dramatic decrease in the rate of inflation and this has become possible primarily due to the elimination of the devaluation factor. Consequently, the increase of capital investment that occurred over the adverse trends in external and domestic markets, while maintaining the difficulty of access to credits and the extremely weak fiscal stimulants, the indicated healthy adaptation to business macroeconomic risks respond to competitive challenges and may precede the stage of a cyclical recovery, but the lack of strong macroeconomic underpinnings of this revival retains the uncertainty of future forecasts. The results of the research are marked: movers, brakes and obstacles, as well as the risks of the economic development of Ukraine in the future. The article focuses on the issues of social security of internally displaced person's assistance to the internally displaced persons increasing in connection with the raising of the minimum wage.*

**Keywords:** *economy, country, industry, development, trends*

### INTRODUCTION

The current state of Ukraine's economy is extremely complicated. The economic development of Ukraine is associated with solutions of many economic problems. The key problems of the Ukrainian economy are: 1) industrial production decline; 2) excess of goods import over the exports; 3) significant deviation of state income

to the plan; 4) payments' imbalance; 5) deterioration of international reserves; 6) negative situation of international commodity markets; 7) government inability to implement the borrowing plan; 8) high proportion of social spending, etc.

### **MATERIALS AND METHODS**

Deep qualitative analysis of native economic tendencies' development has been done by analysts and scientists. We should highlight K. Avramchenko, A. Deshko, Y. Gorokhovets, T. Durneva, Ya. Zhalilo, S. Kovalevska, M. Onufryk, I. Yakovenko.

### **RESEARCHES**

In 2016, for the first time after the depressive years from 2012 to 2013 and the crisis years 2014-2015, the Ukrainian economy has demonstrated positive growth indicators. In the first, second and third quarters of the year the GDP growth has accounted in constant prices, respectively of 0.1%; 1.4% and 2.0%; and overall for the period is 1.3%. It should be noted, that the last positive quarterly number of the Ukrainian GDP has been reflected in the second quarter of 2012.

According to the national accounts, the GDP growth in 2016 was achieved primarily by the growth in gross fixed capital formation by 16.7%; in the second and third quarters these numbers were greatly accelerated. Continuous growth of gross fixed capital formation continued for four consecutive quarters and also appeared for the first time since the middle of 2012.

This trend is confirmed by the statistics of capital investments for the first three quarters it grew by 16.4%. One of the leaders in investment growth is agriculture. In the transport sector and sphere of communication, the investment rose by 22.9% and in industry by 15.5%. Among the industry leaders in investment volumes are electricity, gas, water, sewerage supply as well as waste management and mining. One third of the processing industry investments have been in food industry, nearly a quarter to metallurgy, 13.8% went to mechanical engineering and instrument making; 12.1% was in manufacturing rubber and plastic products and other non-metallic mineral products [2].

The capital investments were concentrated in industries with better access to the liquid resources from internal or external markets, because capital financing was primarily due to the reinvestment of own enterprises' funds, whose share in the financing of capital investment increased up to 71.8% against 69.3% a year ago. Thanks to the increase during 9 months of 2016, profits before taxation of big and medium enterprises grew by 14.9%. The share of commercial bank loans decreased from 8.8% to 7.2%, foreign investment from 3.9% to 3.1%; funds of foreign investors mainly came from the financial sector with the requirements of recapitalization of the banking system. The increase of investment financing share through state and local budgets from 4.4 to 5.9% explains the strong investment growth in all sectors related to the communal sector. However, according to the treasury, for 11 months in 2016, the capital expenditures of the consolidated budget are financed only by 47.1 billion or 51.9% of the plan. The increase in the investment share is characteristic at the expense of local budgets to 4.8% for the first three quarters of 2016, which correlates with the policy of fiscal decentralization.

The consumption sphere also is a driving force of economic growth; its impact was much weaker, however, intensified during the year. For three quarters, final consumption expenditure of households grew by 2.4% and in total public sector management by 0.1%. Such indicators are quite natural in the conditions of slow recovery of real incomes and a very tight budget policy was 14.1% [2].

The resulting influence of foreign trade was negative for growth: during three quarters in 2016 the comparable numbers of exports decreased by 5.3%, while imports increased by 2.2% and negative contribution of the net exports to GDP has increased in comparison with three quarters of 2015 by four times. Current prices for the first 9 months in 2016, export of goods has decreased by 8.7% and import came back to the 2015 level. According to the above-mentioned factors in 2016, the Ukrainian industry showed a gradual restoration of positive dynamics. Although the growth rates have remained low, the industry is one of the main engines of the economic growth. The contribution of the processing industry is obvious; its value was 28.4% of the total GDP for the first three quarters of 2016.

The recovery of industrial growth had enough sectoral character. 50.9% of the output growth in industry was provided by the metallurgical industry, which grew by 6.4%. 8.8% was focused on production of coal. The main engine of output growth in the sector was the external factor, i.e. the share of exports in sold production of industry (62.6%). At the same time, the effect of revitalizing the industry was more noticeable for domestic production because of the negative dynamics of the world prices. During three quarters in 2016 the production of the main kinds of ferrous metallurgy products in natural terms has increased by 8.5%; the value exports of ferrous metals decreased by 16.4%. In the second half in 2016, positive dynamics of the industry subsided, reflecting the increased uncertainty of the global metal market. Manufacture of rubber and plastic products and non-metallic mineral products provided 16.5% of the industrial production increased during the first 11 months of 2016. Meanwhile, its driving force became the increased growth in the construction sector, which amounted to 14.1% during the first 11 months in 2016. In contrast to metallurgy, these types of industrial activity during the year showed an accelerated growth tendency simultaneously to the acceleration of investment.

The activation of increased investment has also provided some impetus to domestic manufacturing. Although the production in industry has grown by only 1.2% during the first 11 months, but the share of export in its sales has decreased from 57% to 49%; the export has decreased by 9.9%. The incentive effect of active investment dynamics in the agricultural sector is favorably marked that machinery and equipment manufacture for agriculture and forestry during the year accelerated the growth pace in 11 months and has increased by 15.4%. Manufacture of machinery for metallurgy has increased by 10.3%. Consequently, there has been a reorientation of engineering meeting domestic investment demand that helped to offset the loss of foreign markets. Meanwhile, the intensification of investment required import of machinery and equipment, which grew by 26.1% [2].

The agricultural sector also should be associated with the trend of production stabilization in the chemical industry, which had significant losses as a result of

aggression in the East of the country and a sharp rise of natural gas prices as a key raw material. Now the growth engine in the industry is the production of fertilizers. During 11 months in 2016, the subsector "manufacture of basic chemical products, fertilizers and nitrogen compounds, plastics and synthetic rubber" provided 5.6% of industrial production increase. It is the characteristic trend of accelerated growth of this subsector during the year.

The contribution of food industry to the growth is 31.2%. However, the growth engine of this industry in 3.6% during 11 months in 2016 despite expectations of the external market. There was an increase by 13.6% on the oil industry which counts for a third of the food industry, with 60% of sales in this sub-sector directed to the exports which is 62% of total export of processed food. Other food subsectors, which are mainly for domestic market, remained stagnant or decreased production. Meanwhile, albeit slow, recovery in consumer demand in this market is reflected in the increase of the ready-made food products import by 7.1% for three quarters [2].

The economic recovery has simplified the achievement of macroeconomic stability. Activation of currency proceeds on the market due to a significant reduction in the rate of export decline has allowed the National Bank to maintain flexible exchange rate policy. Strict administrative limits on speculative operations combined with the liberalization of foreign currency transactions: the amount of mandatory sales of foreign exchange earnings was reduced to 65%, allowed to make the dividend payments abroad, relaxed requirements regarding the extent of monetary funds, withdrawal from the accounts and the purchase / sale of currency. This policy has increased the range of current currency fluctuations, which have contributed to maintaining the high devaluation expectations, which became the main engine of the gradual devaluation of UAH in terms of improving the state of the consolidated payment balance. In general, the national currency devalued for 2016 by 14.3%, slightly higher than the consumer price index. The artificial maintenance rejection of the course has ensured the foreign exchange reserves growth for 2016 by 17%. However, such growth of reserves was insufficient to comply with the lighthouse specified in the Memorandum of economic and financial policies [1].

There has been a dramatic decrease in the rate of inflation up to 12.4% in 2016 compared to 43.3% in 2015. It was possible primarily due to the elimination of the devaluation factor. The role of inflation driver have moved to centrally regulated prices and tariffs: the increase of prices for communal services amounted up to 47.2%. Rising prices in other segments of the consumer market was hampered by the weak consumer demand associated with the slow income growth and the increased diversion of utility services. Relative macroeconomic stabilization has led to the advancement of Ukrainian banks. In particular, there was a cessation of the individual deposits outflow: in 2016 the amount of them increased in the national currency by 5.2% and legal entities by 12%. Meanwhile, banks did not become the noticeable engine of domestic demand increasing: balances of economic entities loans for 2016 rose in national currency by 22.3% and individuals decreased by 4%. Not triggering banks as the agents, an increasing of money supply has led to a growing trend of the economy demonetization: if the nominal GDP for the first three quarters 2016 increased by 18.2%, M2 money supply only by 5.8% [2].

Therefore the Ukrainian economy in 2016 a slow trend of economic growth has started, the driving forces of which came as a surprise to many experts. The active increasing of capital investment that occurred due to unfavorable trends in the external and domestic markets, while maintaining the difficulty of access to credit and the extremely weak fiscal stimulants indicates the healthy adaptation to business macroeconomic risks, its respond to the competitive challenges and may precede the stage of cyclical recovery. However, the lack of strong macroeconomic underpinnings of this revival retains the uncertainty of future forecasts.

In 2016 it was recorded a slow recovery of positive dynamics of the population's real incomes. Thus, in the second quarter of 2016 they increased compared to the corresponding period of 2015 by 5.6% in the third quarter by 7.3%, which, however, is a fairly minor magnitude on the decline in 2014-2015 of 25.4%. The average monthly wage in January-November by the nominal measurement was 23.8% more than in 2015. Considering the consumer price index over this period, the real increase in wages was 8.5%. In the result of dynamic wage increasing, its share of income increased in comparison with three quarters in 2015, down from 39.6% up to 43.5%, but the share of social benefits and other transfers decreased from 37.4% to 35.2%. The significant changes in employment did not happen: unemployment rate increased for the first three quarters in 2016 up to 9.6% of the working population compared with 9.4% in 2015, while the number of unemployed in the working age group has increased only by 25 thousand people, up to 1661 thousand. Meanwhile, despite the improvement of quantitative indicators that characterize the quality of the population's life, which primarily affect the subjective perception of living conditions showed a disappointing trend [2].

Particularly the rise of prices was significant. The general increase of prices on food for 2016 according to Governmental statistics was 3.3%, the cost of a number of socially sensitive products grew much faster. Thus, price for milk increased by 23.3%, butter by 29.6%, cheese by 19%, sunflower oil by 9.4%. Reduction was observed concerning only eggs, vegetables, fruits and sugar. So, overall there has been a real decline in the welfare of basic food consumers. With the fast pace the cost of housing and communal services (47.2%) has increased, lubricants (19.5%), educational services (13.7%). Some softener inflationary pressure with low income categories of the population was the increasing of the subsidies volume for housing and communal services. The number of households that receive subsidies increased by 2.3 times up to 5.5 million in October, 2016; the average nominal subsidy increased by 76% up to 566.8 UAH [1].

The deterioration of quality indicators were common to all branches of the social sphere, reduced funding of the relevant sectors and deterioration of the services quality were the results. According to the Ministry of Finance of Ukraine, the general inflation rate for 11 months in 2016 was 14.1%, the consolidated budget expenditures on health increased only by 5.1%. The level of expenditure of patients own funds during the hospital treatment has grown by some estimates over 60% of the total cost of treatment. There is a much sharper, especially in the first half in 2016, lack of certain types of vaccines and serums, leading to cases of polio, rabies, poisoning, bites and things like that. In the second half in 2016, the situation

has improved somehow as a result of procurement through international funds.

The growth of consolidated budget expenditures on education was closer to the inflation rate with 11.9%. In secondary education, educational institutions optimization was continuing: at the beginning of the 2016-2017 school years, 169 small schools were closed, but 134 support schools were opened. The number of students per teacher was 8 and it has been very low in comparison with developed countries of the world. However, in preschool education there is a queue of 90 thousand children to get into kindergarten. The situation in vocational education in connection with its funding of educational grants is dramatically worsened. There was a gradual decrease in coverage of social services. The application of a new methodology for assessing the cost of services adopted in December 2015 has led to a slight increase of these service prices, which meant they could be provided due to the budget and led to a transition for the provision of paid services.

## RESULTS

According to results of research, it is appropriate to generate *Table 1*, which contains the engines, brakes and obstacles of risks of Ukraine's economic development in the future. The most critical is the issue of social security of internally displaced persons, which is also one of the conditions for obtaining the second tranche of macro-financial assistance from the European Union. On December, 05, 2016, according to the Ministry of Social Policy of Ukraine, it was nearly 1656662 IDPs.

During 2016, a number of changes of regulations in respect of internally displaced persons were made, which, in the opinion of the public, complicate the process of effective delivery of social benefits and services for immigrants, and have the signs of discriminatory rules. The standards of the legislation of Ukraine on protection of internally displaced persons' rights does not met due to the failure of the relevant regulatory acts of the Government of Ukraine on the provision of temporary housing, compensation for lost property and benefits to receive the educational services. That is the reason for the return of internally displaced persons to the conflict zone. In the state budget for 2016 the funding to provide a monthly targeted assistance to IDPs was reduced in order to cover living expenses, including utilities on 700 million UAH. Assistance to internally displaced persons will increase in connection with the raising of the minimum wage from January, 01, 2017 and does not depend on the minimum subsistence level. It is also established that the total monthly amount of aid for one family may not exceed 2400 UAH. In fact, this is the only "special" payment from the state, people who fled their homes due to the occupation.

## DISCUSSION AND CONCLUSION

The analysis of the current bias of the Ukraine's economy has allowed defining that for the first time after depressed and crisis years the Ukrainian economy has demonstrated positive growth indicators.

Capital investment was concentrated in industries with better access to liquid resources from internal or external markets.

Table 1

### Factors of modern economic development of Ukraine

<i>Movers</i>	<i>Brakes and obstacles</i>	<i>Risks</i>
The acceleration of world economy growth A revival of infrastructure projects in developed countries The Association Agreement effect between Ukraine and the EU Growth of foreign investment Adaptation of businesses and consumers to the high risks Return of incomes from the realized investments The continuation of growth capital investment trend Increase of budget spending on infrastructure construction (roads, railways) Implementation of energy efficiency programs Proliferation stimulatory effect of growth in agribusiness Proliferation stimulatory effect of growth in construction Growth of consumer demand (increased minimum wage)	Global protectionism trends Weak international capital flows Maintaining a high risk level and uncertainty in the national economy Weak investment availability Diversion of an increasing part of domestic demand for the market of housing services High debt burden and the need for external lending Populism in decisions Coordination lack between National Bank and Government Credibility lack of National Bank and Government Absence of effective state investment policy	Recovery of global recession and loss of export revenues due to the downturn in traditional markets Intensification of fighting in Eastern Ukraine Deployment of "hybrid war" in the new areas Escalation of politic crisis Excessive restrictive impact of NBU anti-inflationary policy Shortfalls to the budget and need for additional borrowing Exceeding the planned target of devaluation that can lead to an additional rise in inflation, the higher prices of imported energy resources, rising demand in additional means for repayment and servicing of state debt in foreign currency Existing agreements failure with MFIs, which can lead to "freeze" of aid or loans for individual projects

*Source: created by author according to [1]*

The consumption sphere has also played the role of a driving force of economic growth, but the resulting influence of foreign trade was negative for economic growth. The growth recovery in the industry had enough sectoral character.

With the agricultural sector the trend of stabilization should be associated. The economic recovery has simplified the achievement of macroeconomic stability at the expense of a radical reduction in the inflation rate. Relative macroeconomic stabilization has led to the advancement of Ukrainian banks.

It is established that the most critical is the issue of social security of internally displaced persons.

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# EFFECTIVENESS OF ARABLE LAND USE IN UKRAINE

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**Abstract:** *Ukraine is famous for its fertile soils and demonstrates growing yields through the last 15 years; however increased intensive agricultural use raises concerns. Current statistics of the land fund use are analyzed in the paper together with general threats and consequences of land concentration. Special attention is paid to the evidence of insufficient crop rotation and implementation of soil exhausting techniques.*

**Keywords:** *arable land, fertility, crop rotation, sustainability*

## INTRODUCTION

Ukrainian agriculture nowadays experiences slow economic revival after decades of losses and despite political instabilities demonstrates stable growth. In 2015 it produced 14% of the countries value added which is more than 10 bln. US dollars. One of the major problems that prevents from quicker development and reduces attractiveness for outside investment is the absence of sales land market and low transparency of rental market. The ban on the land trade is considered necessary to keep it in the hands of Ukrainian people; however in this paper we will analyze the efficiency of land management in Ukraine through last decades especially in terms of preserving its value and natural fertility. The aim of the article is to create better understanding of the problems with the arable land use in Ukraine and determine possible threats for preserving its natural fertility. The following tasks are set for its solution: to analyze the condition of the arable lands in Ukraine and basic indicators of the intensiveness and the efficiency of their use; to justify possible directions of the Ukrainian land fund rational use.

## MATERIALS AND METHODS

Fundamentals of the economic efficiency of the land use are presented by the following researchers: V. Andriychuk, G. Atamanchuk, M. Fedorov, P. Sabluk, V. Tregobchuk, A. Tretyak et al. Practical issues of evaluating the effects of erosion and intensive crops were analyzed by V. Gordiyenko, L. Marmul, O. Nazarenko et al. At the same time, in spite of significant scientific achievements in the mentioned questions, the problem of the efficiency of the land fund use based on sustainable approach under conditions of modern social and economic processes has not been solved yet.

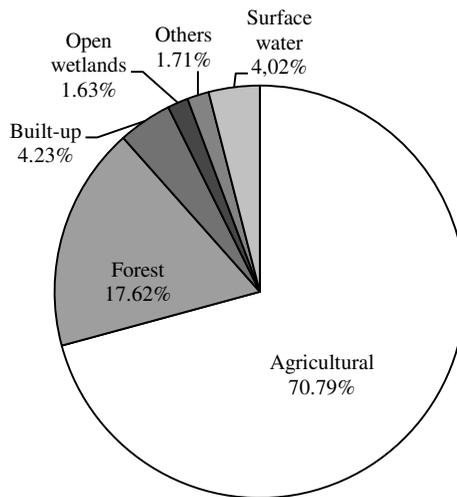
## RESULTS

Land resources are the major part of natural resource potential of the region and are indispensable as the territorial basis for the placement of the economy and

serve as the main means of production to the needs of agriculture. While describing the economic efficiency of the land use one should first examine resource availability and degree of its utilization.

In Ukraine, all land is included into state land fund regardless of the purpose of land and its use in economic activities. Classification based on the intended and functional use includes agricultural land; forests and wooded areas; built-up areas for the industrial and transport facilities, housing, streets, etc; land covered with surface waters; other lands. Owners are not officially allowed to change land purpose unless specially permitted by regional authorities.

The area of Ukraine is 60.35 mln. ha which is second largest in Europe. Composition and structure of the land fund is presented in *Figure 1*. Thus, the major part, which is 42726.4 ths. ha is agricultural land, most of which is arable 32541.3 ths. ha, or 53.9% of total. Forests and other forest covered areas occupy 10633.1 ths. ha, built-up land, which includes land for housing, industrial purposes, mines, public, recreational facilities 2552.9 ths. ha total, open wetlands 982.3 ths. ha. Area of 2426.4 ths. ha is covered with surface water, 1033.8 ths. ha are classified as "others" and include desert areas.



**Figure 1: Structure of the land fund in Ukraine (January, 01, 2016)**

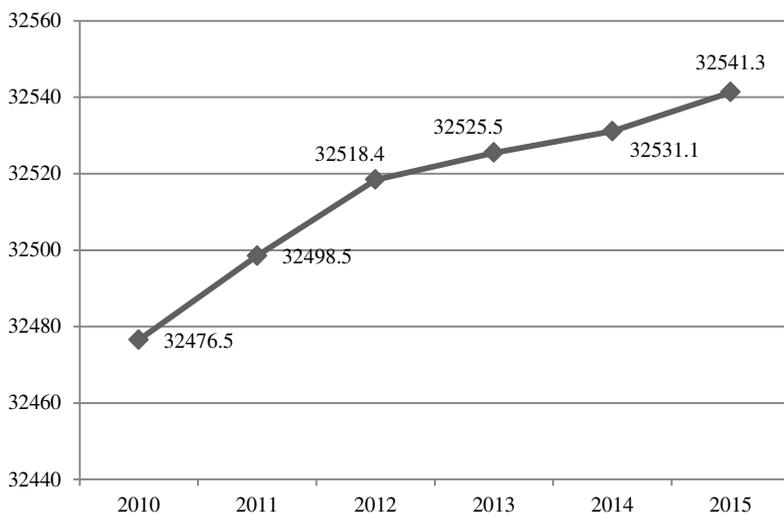
*Source: Data provided by the State Service of Ukraine for Geodesy, Cartography & Cadastre*

Land resources of the country are characterized by relatively high bio-productive potential with high proportion of chernozem soil type, which creates favorable conditions for productive agriculture. The structure of the agricultural land includes following soil types: black soils are the most fertile and occupy almost 73%, gray and black ashes soils over 12%, brown about 4%.

The indicator of land provision is 100 ha of agricultural land for 100 population or 247 ha of arable land for 100 rural population, which is rather high in comparison to

the world and this indicator is growing because of a dramatic reduction of the Ukrainian population and rural population especially, which is observed for the last 25 years due to natural reasons and high rates of economic emigration.

Major part of agricultural land is arable and its area is growing because of the increased profitability of agricultural production. According to official data in 2015, almost 89% of all agricultural companies were profitable and average profitability level of operating activities was 43.1%, which made companies extremely active in search for even better profits, which, in turn, stimulated increase of arable land (Figure 2).



**Figure 2: Arable land, at end of year; thousands hectares**

Source: Data provided by the State Service of Ukraine for Geodesy, Cartography & Cadastre

At the same time, according to experts, Ukrainian farmers obtain 79% of profits through natural fertility of the land and only 21% as a result of modern technology [6, 7]. High yields at this stage are combined with a significant load on the biological system. The intensity of the land use can be analyzed through the following indicators: 1) the degree of economic use of land, which is calculated by dividing agricultural land by the entire land area; 2) the degree of tillage, calculated as the share of arable land and perennial plantations cultivated of the area of agricultural land; 3) degree of ameliorative as the ratio of the area of reclaimed land (drained, irrigated) to the total area of agricultural land; 4) proportion of intensive crops (sugar beet, flax, potatoes, vegetables, sunflower, grain maize, hemp) in the total sown area of enterprises; 5) re-use of land, which is determined by the ratio of the cultivated area to area re-planting during the year [1].

The degree of economic use of land for agricultural production has slightly grown up to 71% in 2015 and the share of arable land and perennial plantations in total agricultural land did not change greatly and accounted for 82%.

Table 1

## Intensiveness of land use for agriculture in Europe, 2014, 1000 ha

Country	Area, 1000 ha			Indices		
	Land area	Agricultural area	Arable land and Permanent crops	Agricultural / Total	Arable & Permanent/ Agricultural	Arable/ Total
Albania	2740	1174	696	43%	59%	25%
Andorra	47	20,9	2,8	44%	13%	6%
Austria	8252	2714	1417	33%	52%	17%
Belarus	20291	8632	5788	43%	67%	29%
Belgium	3028	1331	839	44%	63%	28%
Bosnia and Herzegovina	5128	2162	1117	42%	52%	22%
Bulgaria	10856	4977	3613	46%	73%	33%
Croatia	5596	1508	890	27%	59%	16%
Czech Republic	7721	4216	3219	55%	76%	42%
Denmark	4226	2629	2436	62%	93%	58%
Estonia	4239	974	659	23%	68%	16%
Finland	30389	2267	2234	7%	99%	7%
France	54755	28766	19328	53%	67%	35%
Germany	34890	16725	12704	48%	76%	36%
Greece	12890	8175	3725	63%	46%	29%
Hungary	9053	5346	4585	59%	86%	51%
Iceland	10025	1872	121	19%	6%	1%
Ireland	6889	4466	1059	65%	24%	15%
Italy	29414	13162	9121	45%	69%	31%
Latvia	6218	1872	1215	30%	65%	20%
Lithuania	6265	2952	2384	47%	81%	38%
Netherlands	3369	1839	1081	55%	59%	32%
Norway	36524	986	811	3%	82%	2%
Poland	30619	14424	11304	47%	78%	37%
Portugal	9160	3701	1885	40%	51%	21%
Moldova	3287	2458	2109	75%	86%	64%
Romania	23008	13830	9203	60%	67%	40%
Russian Federation	1637687	217721	124721	13%	57%	8%
Serbia	8746	3506	2793	40%	80%	32%
Slovakia	4808	1924	1413	40%	73%	29%
Slovenia	2014	614	237	30%	39%	12%
Spain	50021	26578	17188	53%	65%	34%
Sweden	40731	3032	2597	7%	86%	6%
Switzerland	3951	1522	425	39%	28%	11%
Republic of Macedonia	2522	1263	452	50%	36%	18%
Ukraine	57929	41272	33424	71%	81%	58%
UK	24193	17232	6278	71%	36%	26%

Source: Calculated by the author based on the data provided by <http://www.fao.org>

These indicators are among the highest in Europe with only Moldova demonstrating higher degree of economic use with 75%. As for the degree of tillage, many countries are demonstrating even higher levels up to 99% in Finland,

but the part of their agricultural land in the total land area is not high. When comparing total arable and perennial crop land to the total we may see that again Ukraine takes the leading place with 58% and second after Moldova (64%), same as Denmark with the size of Ukraine more than 10 times bigger.

Ukrainian land is intensively used for agricultural production, but the share of the tilled land in the total land of agriculture is not very high, which might result in future increase in terms of profitability of crop growing (*Table 2*).

In terms of proportion of intensive crops in the total planted area figures illustrate that most land is used for them.

Producers direct their resources towards growing most profitable crops with low capital and labor intensiveness. As a result, in 2015 80% of planted land was used for three main grain crops (maize, wheat and barley) and two industrial crops (sunflower and soya). But in regional dimension these proportions were more severe in southern regions are more suitable for sunflower, while northern are used for maize production so that in most regions only three crops were prevailing.

Many farms fail to comply with crop rotation, allowing deviation from scientifically reasonable farming systems. Soil cultivation technologies are often violated, affecting their ecological status. There is no consensus in the world about the consequences of such farming practice and optimal crop rotations. According to common Ukrainian practice, acceptable standards for periodicity of growing crop at the same field for sunflower are 7 years. As a result, its share in the structure of crops may not exceed 14%, and in view of the fact that not all regions and arable soils are suitable for its cultivation, the figure should be significantly lower.

A study by Anderson, 2012 also argues that the length of rotation, an interval between cultivation of the same culture, is an important factor for productivity and soil quality, but application for a seven-year interval in sunflower cultivation is not unambiguous. So for the research conducted in Akron, Colorado, sunflower gave the best result at the 4-year interval (versus shorter), and at more frequent cultivation yield significantly decreased due to plants diseases (*Phoma oleracea*) [1].

Farmers claim that in market conditions they may determine the sequence of crops on their own and argue that irrelevant of the crop rotation yields are growing each year but such results are still below European figures and are mostly results of proper agronomic practices, decent machinery, high-yield varieties and modern plant protection products.

Government, with the support of scientists, declares about the need to preserve the land fund of the country and try to monitor the compliance with scientifically based crop rotations. Ukrainian Land Code obliges companies to develop special land management documentation for each user of arable land, the violation of which entails administrative liability. But this is rather a formal requirement and failure to comply does not bear serious consequences for producer. In practice, economic activities of the following required crop rotations are reduced only to the need for developing formal land management projects. It would be more appropriate from an environmental point of view to strengthen the control and responsibility for the deterioration of soil fertility.

Table 2

## Area of basic crops in Ukraine, % from total sown area

Cultures	2000	2005	2010	2011	2012	2013	2014	2015
Wheat	20,68	25,59	23,94	24,51	20,76	23,59	22,25	25,53
Sunflower	10,83	14,37	16,96	17,13	18,68	17,83	19,30	18,98
Maize for grain	5,02	6,57	10,05	13,08	16,64	17,27	17,22	15,33
Barley	14,67	17,28	16,71	13,69	12,32	11,86	11,16	10,50
Soya	0,24	1,68	3,99	4,10	5,31	4,84	3,24	8,02
Potatoes	5,99	5,81	5,22	5,20	5,18	4,90	4,95	4,80
Perennial grasses sown in previous years	10,99	6,54	4,59	4,36	4,30	4,07	4,11	3,82
Rape plant	0,79	0,79	3,37	3,14	2,04	3,59	6,63	2,54
Vegetables grown in the open	1,98	1,79	1,71	1,80	1,78	1,70	1,70	1,64
Annual grasses (including winter crops for green feed)	6,50	3,42	2,16	1,92	1,79	1,66	1,50	1,46
Maize for silage, green feed	7,07	2,97	1,75	1,61	1,79	1,39	1,27	1,15
Leguminous	1,50	1,62	1,59	1,35	1,14	0,99	0,83	0,93
Sugar beet	3,15	2,50	1,86	1,92	1,65	0,99	1,22	0,88
Oats	1,92	1,80	1,21	1,04	1,12	0,89	0,91	0,79
Feed root crops	1,05	1,13	0,91	0,85	0,83	0,79	0,79	0,79
Rye	2,46	2,39	1,06	1,02	1,09	1,00	0,68	0,56
Buckwheat	2,11	1,64	0,83	1,12	1,08	0,67	0,51	0,49
Millet	1,61	0,54	0,35	0,61	0,69	0,35	0,38	0,42
Rice	0,10	0,08	0,11	0,11	0,09	0,08	0,04	0,04
Flax	0,08	0,10	0,00	0,01	0,01	0,01	0,01	0,01

Source: calculated by author based on the data provided by the State Statistics Service of Ukraine

Private owner would voluntarily preserve his land and in real circumstances 95.48% of the land is in non-state property, other 4.52% are owned by state. But very often real owners of the land have nothing to do with land management. After land privatization it was distributed between former members of kolkhozes and some land was owned by the companies. Only a small portion of that land was actually used for individual farming, most of it was soon rented by local agricultural enterprises. As a result of increased profitability of producing at big scale enlargement processes take place in modern agriculture. And by the end of 2015, 17.7% of all agricultural land was officially in the use of biggest agricultural enterprises with the area in use above 10000 ha each, mostly rented. Unlike local companies these holdings have no connection with the region and take their decisions based on financial indicators only without due regard to sustainable development of local community, preservation and enrichment of natural fertility of rented land. Some sources claim that 100 biggest companies control over 7 mln. ha of agricultural land, which is 28% of the total [5]. Official statistics does not provide data for separate land renters and data can be only approximate, often based on the official statements of enterprises only.

Agricultural holdings with super scale production organize their activities to implement most efficient growing, sales and management techniques, employ cheap capital on the domestic and foreign markets, and optimize the use of labor and machinery resulting in over 500 \$/ha EBITDA.

**Table 3****Land in use by the size of land users, % from agricultural land**

Area of agricultural land in use, ha	Percentage total area of agricultural land, %				
	2004	2010	2013	2014	2015
Below 1000	22,5	21,6	21,7	21	21,9
1000 – 10000	72,6	67	62,4	58,3	60,4
More than 10000	4,9	11,4	15,9	20,7	17,7

*Source: Calculated by author on the basis of data provided by the State Statistics Service of Ukraine*

Scientists predict [3] that before 2020 more than 50% of arable land will be operated by large agricultural holdings and it's not likely that they will move from land lease to the purchase even in case of lifting of the moratorium on land sales because of high cost of the purchase and operating funds shortage [3].

Production and financial efficiency often comes in contradiction with social benefit. Rational economic behavior and low restrictions on agricultural activity leads to a number of socio-economic problems. Regarding the problem of land nutrition we can also conclude that through the last years, situation has improved in comparison with previous decade and use of mineral fertilizers is now stabilized at the level of 79 kg of active substance per 1 ha of sown area but decrease in the use of organic fertilizers causes the concern.

In 2015 organic fertilizers were only used for 2.5% of all sown area with 21.8 t of fertilizers used for 1 ha. Such a low share of the use of organic fertilizers can be a result of problems in livestock production and reduce of the number of mixed farms with crops and livestock. Straw which could also be used for improving the structure of the soil is often burned on the fields which is also very harmful from an environmental point of view [4].

### **DISCUSSIONS AND CONCLUSION**

Based on the results of our research we can make a conclusion that the effectiveness of the land use in Ukrainian agriculture has improved in terms of economic profitability and growing yields but several problems require special attention.

These problems include failure in state regulation of crop rotation and a resulting prevail of exhausting intensive crops, which can lead to substantial reduction of natural crop fertility.

This is also a result of recent changes in the structure of land users increase of share of agricultural holdings, which operate in many regions of the country and control big land areas.

Their intensive techniques, weak interest in preserving rented land and local communities together with strong lobby in the government raise concerns. The probable solution for that could be better environmental control from the governmental and public organizations together with increased responsibility, and systematic support to small farmers.

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## MANAGEMENT APPROACHES: ESSENCE, FUNCTIONAL PECULIARITIES AND FACTORS OF FORMATION

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**Abstract:** *There is characterized systemic, situational, process, functional and dynamic approaches to management. The features and functional destination are determined. The semantic content of process-structured management approach as a new paradigm of management is revealed. The factors of the new management paradigm formation are singled out and systematized. The essence of the factors that carry the most significant impact on the organization is developed. There have been characterized the groups of factors of micro- and macro- environment influence on organizations, internal and external environments factors. The impact of integration, globalization and the economic crisis on the formation of a new approach to the management of Ukrainian domestic enterprises is described.*

**Keywords:** *management approaches, impact factors, integration, globalization*

### INTRODUCTION

The development of management science as long as the investigation of centuries-old practices of enterprises functioning provided the basis for the formation of different approaches to management. Among them one can single out systematic, situational, process, functional and dynamic approaches.

However, current economic conditions, characterized by volatility and instability, rapid development of globalization and integration processes, penetrating all spheres of socio-economic relations, require developing of the new approaches to operation of business. Such approaches would not only maintain enterprises competitive position but ensure its long-term development. Process-structured management is this very approach that combines the advantages of existing management systems and, at the same time, is characterized by its novelty, based on a fundamentally new bearing of management, a new vision of the main appropriation of management process.

A very important moment is to study factors of this modern approach to management formation, the factors that ensured its development in historical retrospect and laid the foundation for the formation of its characteristic features and functional peculiarities.

### MATERIALS AND METHODS

The great number of scientific researches is dedicated to the approaches to management. Among them we want to remind works of scientists, who worked

with the range of problems in management, particularly M. Albert, V. Vasylenko, O. Hirnyak, R. Hrifin, R. Daft, M. Yohna, O. Melnyk, M. Meskon, O. Kleymanov, A. Kredisov, V. Kredisov, V. Kramarenko, O. Kuzmin, P. Lazanovskiy, H. Osovskaya, Ye. Panchenko, V. Stadnyk, F. Khedouri, A. Shehda, V. Shostka, V. Yatsura et al.

The review of the publications on the problem points to the insufficiency in the disclosure of questions concerning formation of new approaches to management and factors, which led to their emergence and further development. The scientists examined primarily notorious approaches to management that historically formed in the management science, including functional and the role, systemic and situational, dynamic and process etc. It should be mentioned that there is some ambiguity in their interpretation and semantic filling. In accordance with statements of V. Stadnyk and M. Yohna the modern framework in management formed under the influence of changes in the global social and economic development. Thus, during the 60-70th of XX century there were formed two main approaches to management, which absorbed all the experience of the previous years, situational and systematic approaches [1].

The systematic approach is based on the use of the system theory, meanwhile the system is considered as a sum-total of interrelated and interworking elements that determine its character. The situational approach based on the concept of the situation as a concrete set of circumstances that affect the organization for a certain period of time [2].

By-turn, the situational approach has led to the initiation of a number of up-to-date management concepts. These include: the technocratic management, modern behaviorism, management by objectives, quality management, reengineering, etc. [1]. However, it should be mentioned that this is quiet an incomplete list of existing approaches to management for today.

A. Kredisov, E. Panchenko and V. Kredisov claim, that management is based mainly on the functional approach, thus administrative activities add up to certain specific activities, and they are functions. As is known, the general value of functional approach in management was described long ago by H. Fayol and consists in total universality, independence from organization peculiarities, field of activity or the manager. Together with functional approach to management the role approach gained the widespread use, as it allows taking to the consideration main features of personnel and managers. Exactly the role approach provides the establishing of the determined rules of behavior, which are appropriate to the certain organization and even the specific position [3].

In the accordance with the process approach management covers not only the implementation of mentioned above management functions, but the creation of management methods, decision-making realization, formation of communications etc. Dynamic approach is an alternative to the static one.

O. Kuzmin emphasizes that modern conditions, in which enterprises are obliged to function, require the creation of the newest management paradigm, which would integrate all existing achievements in management and would be aimed at the formation of the effective complex approach to the enterprise administration. The proposed process-structured approach to management is exactly directed at the combination of advantages of all known management conceptions [4].

According to the defined problem we should: consider approaches to management and reveal their essence; systematize and characterize the main factors which influence on the formation of process-structured management; describe the essence of the process-structured approach to management, its peculiarities and the main distinctions from the existing ones.

## **RESULTS**

So, summarizing all the above mentioned, it is safe to say that in the current conditions of functioning domestic enterprises in their activities are advisable to be guided by the process-structured approach to management. It is a process-structured management, which forms the basis for an effective operation of business, in view of the fact that it has got complex character and combines process, systematic, dynamic and functional approaches, forming an integral unity.

By definition, process-structured management is based on the concept, according to which management is considered as a process that is a sequence of specific completed stages (implementation of specific management functions; formation of management methods; formalizing of management methods; ensuring managerial influence on the principles of leadership), each of which has its own structure, and in aggregate ensure the implementation of administrative influence of the control system on the controlled one aimed to achieve the organization objectives in the relevant conditions of functioning [4]. Of particular interest are the prerequisites and major factors that have provided in the historical retrospective the formation and development of this newest approach to management.

As is generally known, the organization activity, including management, depends on the affect of various factors that in some way lay the prerequisites for the formation and development of appropriate management approaches. Factors influencing the organization are the driving force, influencing production and economic activity of the organization and provide a certain level of the results. These factors determine any processes undertaken by the organization. They can be classified according to two features: the level of influence (macro, micro); environment of the influence (internal, external). Factors of macro-environment carry out an indirect influence on the enterprise. On the formation of process-structured approach to management an indirect influence made the following factors of macro-environment: the condition of the economy; political and legal relations; effectiveness of governmental regulation of the economy; the level of scientific-and-technological advance; social development level; the state of culture in society; effectiveness of trade unions, political parties and public organizations; demography; natural and environmental conditions; international situation; force-majeure and others.

Microenvironment realizes the direct impact on the company. The factors of microenvironment include: competitors and the competitive environment; consumers; suppliers; business partners; local trade unions, parties and public organizations; local authorities and others.

On the basis of environmental influence they distinguish factors of the internal environment of organizations and factors of the external environment of the

organization, which slightly have something in common with microenvironment factors. The factors mentioned above may carry both positive and negative impact on the organization and influence differentially on management processes.

There are different approaches to structuring of organizations internal environment. Thus, R. Daft described the internal environment as a set of organizational structure, production technology with all the material and technical basis, and the corporate culture. However, most of the internal environment is determined by internal factors that are situational driving forces within the organization. The main factors of the internal environment in any organization are: objectives, structure, tasks, technology, personnel and resources. Factors of the external environment with direct action (which exercise an immediate influence on the organization) are: customers, suppliers, competitors, governmental authorities, infrastructure, legislation, trade unions and social organizations, the system of economic relations in the country, organizations-neighbors. The factors of the external environment with indirect action (affecting not directly but through certain mechanisms) include: international events, international environment, scientific and technological progress, political circumstances, socio-cultural circumstances, the techniques' and technology level, peculiarities of international economic relations, the state of the economy.

The formation of a new approach to the management of organizations is largely influenced by globalization and integration processes that affect mainly all spheres of activity. After all, the main trend in the development of the modern world is an across-the-board globalization, which shows that the boundaries between internal and external policies are being leveled. For Ukraine, the globalization process may be associated with certain problems, although there are being opened the prospects of additional resources that are lacking for innovative development. Meanwhile, the international competition for these resources is escalated, and domestic enterprises are able to compete with multinational corporations that use the latest scientific and technical information and technological advances in the field of production and consumption management [5].

It should be noted that globalization not only greatly increased international contacts, but the dependency as between the countries, so the separate individuals in the economic, informational, political and other spheres of activity. As a new stage in the development of the world economy, globalization is a new phase of internationalization of international economic relations, foreign economic relations and foreign economic activity, intensification of the integration processes and their transition to a new qualitative state. In addition to the already identified factors of the process-structured management formation, among which, as it was mentioned above, we consider micro- and macro- environmental factors, factors of internal and external environments of organizations functioning (with direct and indirect actions), the factors of globalization and integration processes, it should be separately allocated the economic crisis, which in one way or otherwise affecting enterprises activity.

In accordance with A. Chukhno, our crisis is not an ordinary cyclical one but a stable crisis, which is connected with transition of the society from industrial to post-industrial stage of social and economic development. Its distinguishing feature is that at the same time it is the transition from command to market economy.

These processes interweaving not only complicates the crisis as itself, but also determines the amount of problems and tasks that should be performed, complex of methods and forms for going out of the crisis state [6].

To solve the whole complex of problems we need to mobilize domestic resources for increasing investment with the attraction of foreign capital for technical and technological re-equipment of production, significant improving of product quality, enhancing of economic efficiency. The establishment of the market mechanism should be combined with active use of the country role in the economy. A. Chukhno accentuates that it is clear that the transformation of industrial relations should be combined with profound changes in the productive forces. Undoubtedly, all these processes must rely on scientific and technical re-equipment of enterprises, with a new management technology that will ensure the transition from extensive to intensive type of economic development [6].

## DISCUSSION AND CONCLUSION

The formation and development of process-structured management as a new management system were influenced by factors of micro- and macro- environment, internal and external environment of organizations functioning, globalization and integration processes that are widespread today, and certainly crisis and unstable economic situation, affected all, without exception, domestic enterprises. The prospects for further researches are to form the basic principles of process-structured management as the administration developing system, as long as systematization of principles of process-structured management technological realization.

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# APPROACHES TO ACCUMULATE INFORMATION ABOUT TRANSACTIONAL COSTS IN ACCOUNTING AT AN ENTERPRISE

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**Abstract:** *Notion of "transactional costs" is considered. Classification of transactional costs is built. There is managerial collision found that not all kinds of transactional costs that are considered in cost management can be shown in accounting. Taking into account regulatory framework of accounting there are three approaches suggested about accumulation of information about enterprise transactional costs. Advantages and limitations of suggested approaches about accounting transactional costs are analyzed.*

**Keywords:** *enterprise, costs management, transactional costs, classification, accounting, criteria of display, approach to information accumulation*

## INTRODUCTION

Information about transactional costs characterizes external business environment of the enterprise, including market conditions, quality of enterprise interaction with its partners and quality of institutional conditions of its activity. Hidden character of transactional costs does not allow researching their behavior, making instruments of impact on their behavior and size. Nowadays transactional costs are "dissolved" in administrative costs and costs for marketing. And that is why it is almost impossible to find transactional costs in data of accounting or in financial statements. Therefore, it is very problematically to make an impact on the size of transactional costs and manage them.

Accounting is very important function in cost management, because depending on accounting transactional costs and approach of such accounting transactional costs can be considered as object of managing and accordingly functions of planning, analysis and control can be implemented especially for transactional costs. They cannot be considered as object of management In case of absence of accounting results about transactional costs.

## MATERIALS AND METHODS

According to R. Coase (1937), transactional costs are the costs that follow the interaction of economic agents in case of making contracts (including cases of using market mechanisms) (Coase, 1937). Comprehension of notion "transactional costs" that is fundamental for notion "enterprise transactional costs" has long evolution – from the point of view of C. Menger (costs for making contracts between economical agents (Menger, 2005)) to position of R. Coase (costs for using market

mechanism (Coase, 1937)) and D. North (costs for evaluating useful features of object of change, ensuring rights and compulsion of their implementation (North, 1989)).

Variety of kinds of transactional costs caused to emerging constant interest to their ordering. This caused to different approaches to classify transactional costs (Menar, 2004; Milgrom and Roberts, 1992; Wallis and North, 1986; Furubotn and Richter, 2005; Eggertsson, 1990; Archiereev, 2000). Existing polysemy of notion "enterprise transactional costs" is the cause to use contextual approach in research of problem of display transactional costs in accounting. That is why suggested classification of transactional costs is based on groups of transactional costs by T. Eggertsson (Eggertsson, 1990).

## RESULTS

By the results of analysis and generalization of existing definitions of "transactional costs" notion in the context of needs and demands in cost management following definition is suggested: costs and losses of enterprise that emerge in the process of interaction and coordination of its activity with subjects of business-environment (contractors, state, subjects of market and social infrastructure) about considering results of enterprise' activity on the market (production exchange), protecting its property rights and forcing to obey existing rules of exchange and protection.

We suggest added classification of transactional costs (*Table 1*). While building *Table 1* previous ideas of authors (Kozachenko, Pogorelov, Makhuhun, 2007) and classification by T. Eggertsson were used. Considered kinds of transactional costs should be highlighted in accounting at the enterprise.

Next stage of research is to find whether considered classification allows displaying transactional costs in enterprise accounting and making methods of their accounting and control. In IAS there is a definition for expenses: "Expenses are decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrence of liabilities that result in decreases in equity, other than those relating to distributions to equity participants" (Conceptual Framework for Financial Reporting 2010). The same definition is presented in Standard of accounting 16 "Expenses" in Ukraine (Standard of accounting No. 16 "Expenses"). But some kinds of transactional costs in their detailed classification (*Table 1*) do not satisfy or not fully satisfy such demands.

**Table 1**

### Kinds of transactional costs at the enterprise by elements of their groups

Transactional costs' groups	Kinds of transactional costs
<i>1. Costs for search and receiving information about enterprise's contractors</i>	
1.1. Costs to search and receive information (on competitors, agents, suppliers, contractors, financial entities, their reputation and reliability, production, conditions of delivery and conditions of contracts)	Costs for buying of specialized journals, analytical reports, official reports, catalogs, information in electronic form
	Costs for paying on Internet services, using special Internet resources
	Costs for buying equipment for making and processing databases (on suppliers, competitors, customers, financial organizations)
	Costs on exploitation and repairing of equipment for making and processing databases (about competitors, suppliers, customers, financial organizations)
	Costs for salary of specialists who make search and basic processing of information, its formatting, make databases (IT-specialists, operators, specialists)
	Costs for salary of analysts

1.2. Marketing costs (advertising, participation in exhibitions, fairs, work with consumers)	Costs for participation in fairs, exhibitions, conferences
	Costs for advertising and advertising campaign
	Costs for individual work with consumers
<i>2. Costs for negotiation and making contracts</i>	
2.1. Costs for negotiation, making contracts and their legal support	Labor costs of specialists, who deal with negotiating, concluding distributorship agreements and endowment contracts
	Travel expenses related to the concluding distributorship agreements and endowment contracts
	Company's representational expenses
	Costs of preparation and legalization of documentation (notary and commodity exchange services)
	Losses from inaccuracies in the agreements (fines, lost profit)
2.2. Costs of compliance analysis with the conditions of current agreements	Costs of participation in the tenders
	Labor costs of accounting professionals engaged in control over debt collection
	Losses from unscrupulous partners (lost profit, fines and penalties paid as a result of total or partial breach of contract by the agreement partners)
	Losses from bankruptcy of partners
<i>3. The costs of maintaining the enterprise's competitiveness</i>	
3.1. Costs to search and obtain information about competitors (competitive intelligence)	Costs of acquiring information on the activities of competitors
	Wages of specialists, who conduct search, primary processing and formatting of information, maintain databases (programmers, operators, experts)
	Labor costs of analysts
3.2. Costs on the company's market place protection	Losses from reducing prices for goods (work and services) (price competition)
	Organizational costs at increasing the product competitiveness
3.3. Losses in entering the market with new products	Losses from the deliberate reduction of prices for goods (works, services) during its market launch
	Costs of invited agents services
	Losses from low demand for products at its market launch
<i>4. The costs of providing the enterprise's economic security</i>	
4.1. Search, obtain and analysis of information about potential and real threats to enterprise activity	Costs of the Internet services and using special Internet websites
	Acquisition costs of devices and equipment for development and maintenance of databases (competitors, suppliers, customers (clients), financial institutions)
	Costs of exploitation, repair and equipment of devices for the development and maintenance of databases (competitors, suppliers, clients, financial institutions)
	Wages of specialists, who conduct search, primary processing and formatting of information, maintain databases (programmers, operators, experts)
	Labor costs of analysts
4.2. Measures for providing company's economic security	Losses from the enterprise activity threats
	Costs of preventing threats to enterprise activity
	Costs of overcoming the consequences of enterprise activity threats
<i>5. The costs of specification and property rights protection</i>	
5.1. Registration of ownership	Costs of registration of special documents (patents, licenses, trademarks, brands)
	Costs of corporate governance (for enterprises established on collective ownership)
5.2. Protection of property and non-property enterprise's rights	Costs for the services of legal institutions, arbitration, judicial loan at protection of enterprises' rights, protection of third party claims
	Costs for bureaucracy in public institutions (registration of legal entities in the supervision and control institutions) and business partners (opening bank account)
	Costs for maintenance of legal service of enterprise
	Losses from poor specification of property rights related to the lack of legally enshrined property rights
	Losses from trespassing the law resulting from impossibility of the legal protection
<i>6. The measurement costs</i>	
6.1. Costs of technical equipment of product quality control	Costs of acquisition, operation and repair of product quality control instruments
	Costs for services of special agencies (Standardization and Metrology centers)
	Wages of specialists in measurement

6.2. Costs of ISO standardization, quality systems and maintenance	Costs of acquisition, implementation and use of ISO standards, quality systems (of products, management)
6.3. Guarantee obligations costs of the enterprise	Costs of fulfillment of company's obligations regarding the enterprise warranty repair and maintenance of products
	Losses from compensating errors of measurement (penalties for poor quality of products, exchange of defective products)
<i>7. The costs regarding compliance with the law</i>	
7.1. The costs for activity within the law	Taxes, mandatory fees and charges in the established amount
	Acquisition costs of official publications and documents containing procedure for payment of taxes, compulsory payments and fees in the established amount
	Losses from fines connected with infringement of taxes, compulsory payments, fees in the established amount, the norms of environmental legislation, sanitary and fire protection requirements

Source: built by authors on the basis of (Eggertsson, 1990; Kozachenko, Pogorelov, Makhuhin, 2007)

That is why one can find managerial collision: all kinds of transactional costs are recognized in cost management at the enterprise, but according to international and Ukrainian standards of accounting some of such kinds of enterprise costs are not able to be considered in accounting. To solve the problem of display of transactional costs in accounting at the enterprise there are some alternative ways: implementing managerial accounting at the enterprise; making changes to the existing financial accounting (as it is possible according to the used methodological concepts and standards of accounting). In contempt of wide abilities to find information about enterprise costs in managerial accounting there is no wide usage of managerial accounting on Ukrainian enterprises. Taking into account legal aspects of accounting in Ukraine 3 approaches are suggested to accumulate information about transactional costs of the enterprise by their kinds according to Table 1. Essence of suggested approaches is considered in Table 2.

Table 2

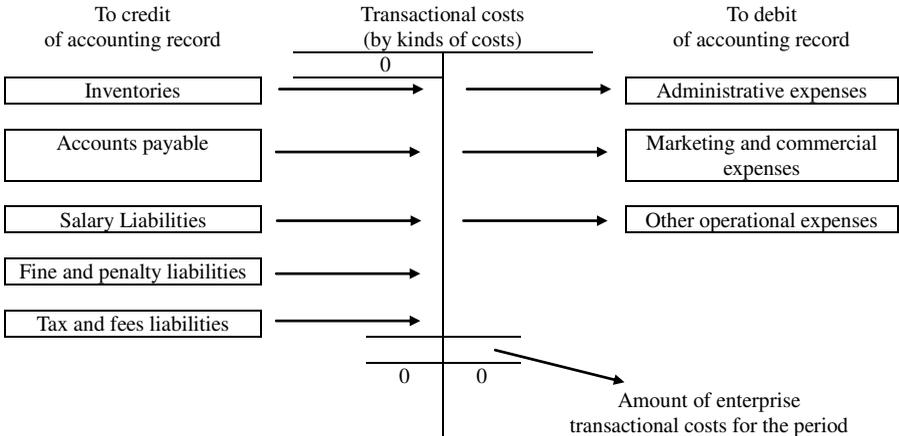
### Approaches to accumulate information about transactional costs of the enterprise in accounting

<i>Approach</i>	<i>Content of approach</i>
Using of the transit account of the account class which displays the itemized costs	Accounting for transaction costs by recording multi-wiring debit transit account of transaction costs of the loan account liabilities or assets following simultaneous posting the debit account of the itemized costs with credit account of transaction costs
Using of the off-balance accounts	Collecting information about transaction costs by recording them in off-balance accounts in each case of such expenses setting to zero such account in the end of the period
Using of the specialized subaccount while applying the computerized accounting	Parallel information collecting about the transaction costs of the company by exhibiting types of costs "Transaction costs" while forming the traditional cost accounting postings on the company

Source: completed by authors

Order of accounting enterprise transactional costs according to every of three suggested approaches is considered in figure 1-3. To make information useful and provide general information there were used not accounts number from National plan of accounting records for commercial enterprises in Ukraine, but names of

accounting records. In *Figure 2* there were the same accounts payables, liabilities used as in *Figure 1-3*. Advantages and limitations of accumulating information about enterprise transactional costs according to suggested approach are shown in *Table 3*.



**Figure 1: Scheme of accounting enterprise transactional costs using transit accounting record**

Source: built by authors

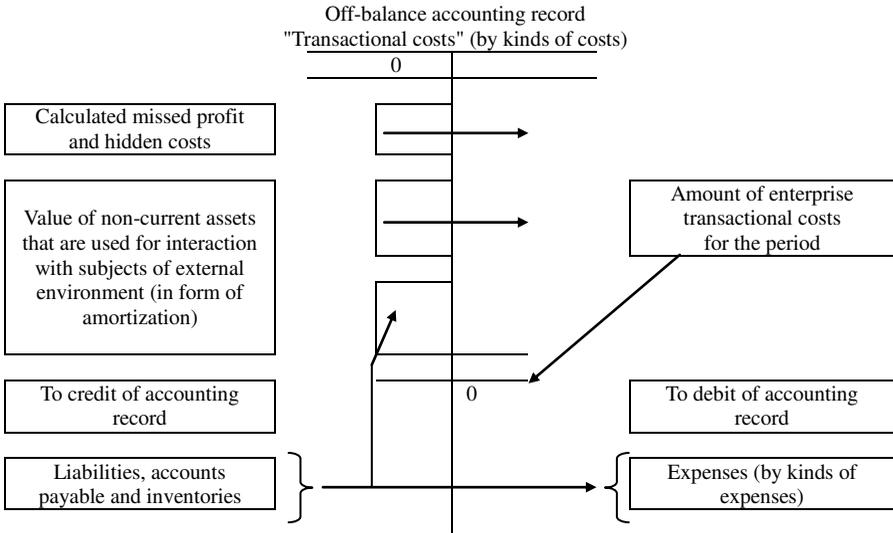
In case of usage transit accounting, record transactional costs at first are displayed on the transit accounting record. After such accounting entry transactional costs are displayed on the necessary accounting record of the expenses records. At the end of the period closing balance by the accounting record will be equal to zero, but total debit (or total credit) of accounting record will be equal to enterprise transactional costs for the period.

**Table 3**  
**Advantages and limitations of the approaches to information collection on the company's transaction costs in accounting**

<i>Suggested approach</i>	<i>Advantages</i>	<i>Limitations</i>
Using of the transit account	Implementation of the enterprise transaction costs accounting procedures in traditional general accounting procedure of the enterprise full costs	Inability to take into account transaction costs associated with inobtained benefits and costs in the form of assets acquiring. It requires additional accounting records
Off-balance account using	Simplicity, convenience	There is a need for transaction costs double counting (comprising itemized costs and in the off-balance account)
Special subaccount using while applying the computerized accounting	Low labor intensity. The need for software accounting complex setup, but afterwards the technical procedures for transaction costs accounting are quite simple. The possibility of formation of an automated internal management reporting of an enterprise transaction costs	High qualification requirements for the accounting software user. The need for establishing of the specialized types of aggregate expenditure in the costs directory. Failure to account transaction costs that are associated with inobtained benefits, and the assets acquisition cost

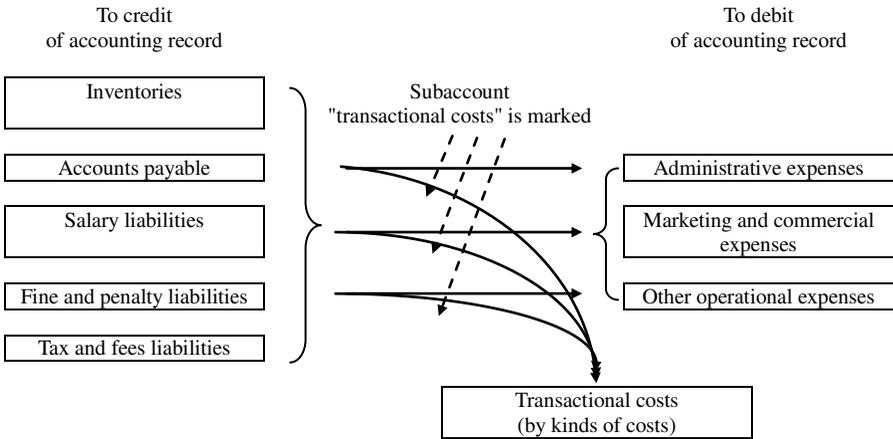
Source: completed by authors

Accounting enterprise transactional costs using off-balance accounting record will lead to increasing such off-balance accounting record balance every time in case of emerging transactional costs.



**Figure 2: Scheme of accounting enterprise transactional costs using off-balance accounting record**

Source: built by authors



**Figure 3: Scheme of accounting enterprise transactional costs while applying the computerized accounting and special subaccounts**

Source: built by authors

At the end of the period accumulated transactional costs should be deducted, because in fact such costs are partly accumulated on records of expenses in financial accounting and partly cannot be recognized as expenses.

## CONCLUSIONS

Nowadays it is impossible to refuse recognition of transactional costs and ability to influence on their behavior and amount. And if it is impossible to display transactional costs in accounting according to classification that meets needs of cost management balanced solution should be incarnated: making consensual changes to existing methodology of expenses accounting at the enterprises. Partial solving of highlighted problem of displaying transactional costs in accounting is considered in three suggested approaches. It is shown that every suggested approach has some advantages and limitations.

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## SOME CONSIDERATIONS ON THE ISSUE OF COMMUNICATION ERRORS BETWEEN VARIOUS STATE AND LOCAL GOVERNMENT AGENCIES AND THE SOCIETY

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**Abstract:** *This scientific article focuses on the quality of communication between the state and local government institutions and broad layers of population. Examples of poor quality communication such as an unsatisfactory reply to an enquiry, in the worst case scenario may become a cause of overall negative social attitude towards the state policy, for example tax payment, and damage people's trust in authorities. The article is based on the author's research in the state and local government communication with the society from the highest (ministries and major hospital) to the lowest levels (local government units). Research findings can be used by administrative managers of various institutions so that they could reconsider their work obligations and the system of remuneration of their employees. As a result public financial means may be saved, relocated and put to a better use.*

**Keywords:** *human resources, full moon, police brutality, dress uniform honor, unsubscribing, supercilious, Soviet legacy*

### INTRODUCTION

Nowadays not only the availability of human resource is important, but also the problem of its productivity. The principles of good governance are implemented by people who are workers and employees. Administrators and managers of different levels not only lead, manage and direct, but determine the quality of implementation of good governance principles just by doing their job well. By their personal example they make an impact not only on the managed environment, and also on the activity of their present and future subordinates and colleagues. In his study the author focused on some negative examples of application of principles of good governance not because he wanted to create a sensational effect, but with an aim to reduce such practices. As a whole the overall picture is not so gloomy.

At present, a number of decisions of the Latvian government have produced negative results and are responsible for the present government low prestige. The public trust neither the state nor the local governments. However, these negative trends can be changed for the better if good governance principles are maintained at all administrative levels.

This scientific article focuses on some failures of communication between various official institutions and people at large.

The goal of the article was to motivate public institutions to improve the quality of their communication with wide layers of society. The improvement of communication can make a significant contribution to the development and implementation of the principles of good governance.

## MATERIALS AND METHODS

The author has used a special scientific literature, interviews and various institutions unpublished materials. The following scientific research main methods were study: analysis, synthesis, logical constructive method, generalization.

## RESULTS

The author has identified different levels of institutions of the negative practices in communication and analyzed.

***Different levels of communication in the wrong example for analysis and processing:*** Having learned about how his daughter Linda was treated at Gailezera clinical hospital, her father Gints Kreslins (hereinafter, Kreslins) was shocked, but further communication with medical officials brought him into the state of affect. He tried to call to several officials at the Ministry of Health. Nobody wanted to listen to him, let alone to sort out the situation. In the conversation with an officer of the Ministry of health I. Ciganova, Kreslins driven to frenzy and desperation said: "...you should be shot..." It was just a phrase, but Ciganova and Belevics assumed that they had been really threatened.

Belevics in one of his interviews said that this last development had been given in the hands of the police. This was maybe right, but surely a wider picture was needed and maybe the first thing to do was to find out what events had led Kreslins to the affect condition and those in desperation said words. The law enforcement authorities could have investigated what other people had been involved (The definition of the affect condition is freely available in the media, for example at "www.Medicine.lv" there is a professional explanation written by a psychotherapist). If somebody is led to suicide by somebody else, this somebody is legally responsible. Maybe bringing a person to the state of affect should also be punishable by law?

Also, in the further developments of this story where already the police appeared there were certain departures from the law. The first two policemen that arrived to detain Kreslins did not introduce themselves. They saw a snow shovel in Kreslins's hands, there was no other "weapon", but interpreted it in their own way. They demanded Kreslins's passport and in fact arrested him on site, pushed him in the police car and ordered to wait. After about 2 hours of waiting, a group of "Alpha" police turned up. The arrestee was transferred from the first police car to the one that had just arrived. Alfa policemen also did not introduce themselves and did not explain what they were doing. Kreslins asked permission to lock the door of the flat but he was not allowed to do that. In fact this action of the police was a violation of Latvian Satversme Section 105 where it is said that "the State shall protect private property..." (The apartment and everything inside it was Kreslins's private property. The police had created and facilitated the conditions when the apartment could have been easily burgled. And the insurers would not pay anything, because the apartment was not properly locked). In the described sequence of events with the involvement of the police one can easily notice also violations of ethical and humanitarian norms. The letter of the law had probably been observed, but what about the spirit of the law and the laws of humanity?

Kreslins worked as a driver and his job was to take schoolchildren to school. So he requested permission to call his colleague and ask him to substitute him so that the next morning children could get to school in time. He was not allowed to do that, the police even refused to make such a call themselves, and so the employer was not given notice as to what had happened to his employee and could not take necessary measures. As a result, no transport came to take children to school; they had to go there on foot and came several lessons late.

Riga Central District police precinct issued a search warrant only on 23 February at 00:20, and the police together with Kreslins went back to Vangazi, where the apartment was searched. Of course, nothing criminal had been found. This time the police allowed locking the apartment though. Then Kreslins was taken to the temporary detention facility in Riga. The police was ready to support their first version that the detainee was led by "...hooligan motives..." But nobody was going to investigate what had driven Kreslins to the affective state. Also the suspect was not given an opportunity to listen to the record of the conversation that put him to jail, the conversation in which Kreslins as if "...threatened to shoot someone". In his version of the events he said: "...you should be shot..." or something to that effect. Still, even the exact words could have different meanings; they could have been used as a metaphor. His conversation with the representative of the Ministry of Health, Minister's Advisor in communication I. Ciganova ended in a calm tone, and she promised to call immediately to Gailezers and to sort out the situation. She called the police instead.

It has looked like Belevics neither was able to carry out the duties of a minister nor of the Member of Parliament at one and the same time and as is right and proper. His "reign" left a host of unresolved issues in the Ministry of health, such as the unfinished business of registration system "e-health", accumulating problems of oncological patients, long waiting lines for medical diagnostic procedures, to name just a few. The previous Health Minister had put forward a range of proposals already discussed in parliamentary committees, but after the reshuffle of ministers that soon followed these proposals were left without motion. They were supposed to be dealt with by the member of Saeima Belevics and Health Minister Belevics. As it soon became publicly known Belevics had been involved in influence peddling, in generating a number of interest conflicts (for the last one he was administratively punished), in exclusion of 1 million EUR from the tax declaration, in defamation. But maybe this was just the influence of full moon and it was under that influence he "forgot" to declare a part of his income caused a conflict of interests and so on. However, one should not measure everything by one's own yardstick and believe that other people, for example the patient Linda had also been under some such influence. Even the great Alexander Macedonian (in some sources, Iskander), being epileptic, did not think that all his subjects were also epileptics.

The author being an economist is worried by L. Misevica's confession that "in the present situation, people are not motivated to pay taxes and turn to the state for help..." And she is not alone in this; there are many people who think in a similar vein. This attitude undermines the national economy. To at least minimize, if not to eliminate the spread of such views, a large role belongs to the Health Ministry in

general and its subordinate medical institutions in particular. A qualified doctor, an associate professor, Gailezera clinical hospital head physician could have laid a copyright claim to the ancient counting system, which discovery may have happened "under the influence of the second period of full moon". The counting system of our ancient ancestors was "nothing – one – two – many". However Kalnins's counting system equals "all" with "nothing" like ancient hunters did: returning back from the unsuccessful hunt they showed empty hands and said "that's all" and thus led the community and themselves to death by starvation. Therefore, I can safely say that out of such approach a doctoral thesis does not have a chance to ensue, one cannot equal "all" with "one" or "zero".

A tentative assessment of the state police and Gailezera clinical hospital medical staff behavior, (for a fuller assessment of this case we need more information) allows concluding that these two state institutions have significant financial reserves if they can afford to spend their financial means so unreasonably: Gailezera clinical hospital did not need a qualified M.D. occupying a surgery labeled "Consulting medical doctor". The patient's question "What should I do?" instead of "I do not know! You should be in Jelgava!" could be answered in a more humane, responsive and sensitive manner by a medical worker of a much lower status. They could even be compassionate enough as to give the patient some painkillers. Maybe even a sanitary assistant could do, because the results of medical checks done at Jelgava hospital, which our patient had on her were not even looked at. Does it sound too cynical? Really, these examples of inhumanity ask for a radical treatment.

It looks like the state police also have spare financial and personnel reserves. The issuance of a search warrant, detention of the "offender", keeping the offender in the police car without any explanations, the involvement of the "Alpha" group of four policemen, transfer of 'the offender' from one police car to another police car, delivery to Riga, than back to Vangazi with the search warrant, the search itself, another trip back to Riga. Did anybody count how much it cost and what for? It looks like the police feels financially quite secure and have enough human power to protect the public from such "offenders" as Kreslins.

On the whole, the reaction of Belevics and Kalnins to this particular situation was the defense for "the honor of the regimen". In fact there is no segregation line separating patients from doctors. May be this dividing line appears only under the influence of the mysterious "full moon"?<sup>12</sup>

***Public institutions of a lower level and the quality of their communication with the society:*** The struggle for "the honor of the regimen" is characteristic not only of the Ministry of Health and its subordinate institutions. The Ministry of Finance and its Direct taxes Department was noticed acting in a similar way:

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<sup>12</sup> There is no sufficient scientifically proved evidence of the effect of the full moon on the human behavior. Some scientists consider that the phases of moon do not have any significant influence on people. More faith in the influence of the moon on the human psyche is in artists and fiction writers. A famous literary work of the Russian writer of Ukrainian origin Nikolay Gogol (1809-1852) "Evenings on a Farm near Dikanka" may serve as an example here. It was inspired by folktales and countrylore, full of fictitious humorous events and personages, and cannot serve as any scientific proof

probably also under the influence of the "full moon". There was a transaction in which all the time there had been only two parties (the service provider – Traumatology and Orthopedics Hospital and the client – the operated patient). Right out of the blue "the third party" emerged as the provider of a medical note, which is Traumatology and Orthopedics Hospital official document stating that they have performed certain medical services (surgery operation). Then this document is not an act of a third party. It contains all the necessary data, prescribed in the letter of the Department of Direct Taxes of the Ministry of Finance, page 2, proving that the payment for the performed surgery was made by the recipient of the medical service and it is a legally correct statement of the service provider, containing all necessary data. In this story the Direct taxes department asks for being accused not only of personal defamation, but also of demagoguery.

The previous examples demonstrated how administrators of the highest level such as a Minister and a Hospital Chief Medical Officer, strived by fair or foul means, including deception, to brighten the "stained honor of regimen". The Ministry of Finance can also be added to this group because there have been cases when its officials gave empty formal replies and even did not reply at all to perplexing or challenging questions from the public. Of course, these actions were also the attempts to "defend the honor of the regimen". There are many officials responsible for giving answers to enquiries and various applications ranging from officers of municipalities to ministry employees and representatives of various public departments and bodies.

One public sector employee of a lower level (local government of a rural district), let us name her A.V., was very fond of precise quoting Minister Cabinet regulations, but was incapable of connecting those regulations with a particular situation and a particular piece of land. There are reported cases when the maps of certain pieces of land showed roads, quarries, surface engineering networks etc., which in reality did not exist. If this discrepancy was not an issue, the problem was just ignored according to accepted practices in some courts. If in a legal case it was prescribed that the applicant should pay certain fees, but for whatever reasons this prescription became irrelevant, the court assumed that such fee had been paid.

It often happens that the administrative official responsible for preparing a reply does not understand the subject matter of the question. Often, public institutions develop one size fits all form, for example, the reply should be 4-5 pages long. These pages will be filled with quotations from various laws and regulations. If necessary, one can fill in this way even a thousand of pages. Regretfully, usually these citations do not apply to a particular subject matter. One petitioner, let us call him R.A., has been engaged in empty correspondence with the Ministry of Finance Tax Department already for the second year.

Similar approaches are practiced in the state power structures. Once, Riga Regional Police Department redirected a case to a subordinate unit. There was the instruction: "Please investigate for the signs of criminal behavior!" The order was received by Sigulda police station. There the police inspector, responsible for the investigation and report, wrote an empty letter which content did not correspond at

all to the nature of the request. When she was asked why a substantive response was not given to the instruction sent by the superior unit, she said that coming from the family of lawyers she knew better how to reply. (Incidentally, the mother of this family of lawyers was a judge. Quite a long period of time she contrived to act and live in full disregard of judge ethics, legislation and court practice for which later she was legally persecuted).

***A short evaluation of "the Soviet heritage":*** There is a fashion among many young managers and administrators of different levels to blame the Soviet period for everything and say in season and out of season: "This is the Soviet heritage". This expression is used as a mantra or buzz word. For example, the Rural Support Service (RSS) Inspection department in 2015 admitted that the previous year when assessing a plot of land in private property they had made a mistake. The land was declared uncultivated, waste. Later a revaluation was conducted by the Head of RSS Inspection department in person, and he acknowledged that this piece of land was in fact cultivated. However, the acknowledgement was made only verbally and internally, but the landowner did not get any oral not to mention written apology. The result of the reassessment was communicated in writing to the local council, but the owner of the land was left without any proving document.

When some time later he called RSS and requested that the confirming document would be sent to him he was told that the local government had been notified in writing, but the land owner was not entitled to any such written notifications. In addition this official person arrogantly and with an air of importance added that asking for the confirming document in this case looked like "Soviet inheritance and the Soviet era holdover".

If Soviet Business Etiquette provided the answer, decision, etc. also applied to several interested companies and individuals, then under the "main addressee" indicated duplicate or copy other recipients. And that was said by a well-educated person with a master's degree. Surely his education should have taught him to evaluate "the Soviet heritage" in a proper way or at least understand where such remarks were appropriate and where not entirely, especially, now in conditions of modern market economy. Sending the land owner the requested document might have become an example of market economy and new times approaches to positive communication.

Soviet legacy also showed a lot of positive. For example, space acquisition. Very often these achievements of Soviet propaganda subjected to Soviet ideology. So, if from the Soviet heritage discarded Soviet ideology, then the inheritance at issue is objectively evaluated, such as in the case of business etiquette.

Typically, at these beliefs firmly many recent university graduates specialists. For example, electrical transmission network designer Maris in Cesis (Maris regularly did unfulfill promised customers design works self-imposed deadline. Those are being significantly violated.). When had with their discussions on the rational design methods in order to quickly carry out the design, he said that the old (Soviet) Doctors do not know anything.

## **CONCLUSIONS AND PROPOSALS**

Often administrators and public officials of different levels communicating in writing with the public do not respond to the problem of the subject matter in a straightforward way, but use verbosity and send replies without a substance. Administrative officials and different kinds of functionaries should provide answers and solutions to specific problems, without giving unsolicited and superfluous information at all levels of communication with the public. Runaround replies without a real answer wastes both human and financial resources. The duties of the Department of direct taxes acting under the auspices of the Ministry of Finance partially overlap the duties of the State Revenue Service. It is highly recommended to carry out the audit of duties not only in these two institutions, but of the whole system of state administrative institutions. This could produce a significant saving of the state financial resources.

Often "the Soviet heritage" is given a negative evaluation unjustly. A real life practice shows that not everything of that period was completely unacceptable. Before denying something in the "Soviet heritage", one should look more attentively; maybe this something may be used also in a modern market economy.

### **INSTEAD OF A SHORT EPILOGUE**

Health minister had also used his official position and without payment used out of turn the treatment services. So, it was also demonstrated a permissiveness.

However, the use of official position and his attitude toward the patient Linda Misevicha with serious health problems were the main reasons for the Belevich resignation. His place of the Health minister took Anda Chaksha. As is known, in G. Belevich presence during a television program, she showed to the minister the example, how to act if there has been a medicine personal incorrect order. She publicly apologized to a small patients, babies and mothers. The new minister has begun the system "urgent medical help i.e. accept of patients after patient delivery in a hospital". She has begun to implement in the context of the specified system also the other principles of good governance elements. This research shows that there are no irreplaceable officials, even if they are.

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Interview with Linda Misevica

Interview with State Police Sigulda precinct inspector

A telephone interview with the Rural Support Service inspector.

# POSSIBILITIES OF THE BRAND-ORIENTED NATIONAL ECONOMY

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**Abstract:** *The dynamic of commercial brands TOP-100 according BrandFinance is analyzed. The brand is defined as a tool of economic development of the national economy. The impact of the brand on economic growth at all levels of the national economy is demonstrated. The role of various forms of brand in socio-economic development of the country is defined. Changing the sectoral architecture of the national economy in brand-oriented formats is established.*

**Keywords:** *brand, brand of the country, architecture of the national economy*

## INTRODUCTION

Effective development of national economy in conditions of globalization of world trade can be provided with integration of Ukraine with the European Union, expansion of trade, deepening cooperation with developed countries on a *parity basis*, i.e. exchange of products of equal status and profitability.

The current state of global trade relations characterized by the development and promotion to the global markets IT-brands (Apple, Microsoft, Facebook), automobile brands (BMW, Ford, Honda), technological brands (Xerox, Kodak, Sharp, Sony), clothing brands (Nike, Adidas), food brands (Nestle, Coca-Cola).

In such circumstances, parity Ukraine cooperation can be achieved through the development of equivalent domestic brands and promoting the national brand Ukraine, that harmoniously implemented in brand-oriented format of the national economy. Dynamic of the TOP-100 commercial brands that confirms this thesis are shown in *Table 1*.

Among the most famous scientists in the world that conceptual explore of the brand of goods and services D.A. Aaker, K.L. Keller, J.-N. Kapferer, it is their ideas make up the foundation of the theory brand that develops and complementary other scientists and practices. F. Kotler, K. Asplund, I. Rhine, J. Haider are the first researchers of the marketing territory, Simon Anholt started the territorial branding.

V. Balashov conceptually explored the brand of company through analysis of its internal and external components; Both V. Vasilieva & A. Nadyein have designed the idea of branding to brand-person.

However, theoretical, methodological synthesis and system analysis requiring the issue of implementation of the scientific approach to development and diversification of forms of brand of the national economy, that requires research multi-criterion connection between the brand-potential of each form of brand - goods, services, companies, events, persons and territory.

Table 1

## Dynamic of the top-100 commercial brands

Countries	2011		2012*		2016		2017	
	No.	Value (mln. \$)	Number	Value (mln. \$)	Number	Value (mln. \$)	Number	Value (mln. \$)
USA	45	854699	49	999457	46	1431945	51	1649926
China	5	76143	6	818245	15	350501	16	432446
Japan	11	157554	11	170964	11	224873	10	243567
Germany	9	128440	9	129742	8	188564	7	190391
South Korea	1	21511	3	61104	2	106876	3	105552
UK	4	96793	6	111286	6	116133	4	74733
France	7	96685	5	78338	5	82634	3	53684
Spain	3	51805	2	34381	1	15689	2	30328
Sweden	2	24651	1	15211	2	32519	2	43296
Switzerland	3	40867	1	16661	1	23395	1	19416
Holland	3	39873	2	32573	1	31665	1	36783
India	1	15087	1	16343	1	12687	0	0
Brazil	3	44859	2	28863	0	0	0	0
Italy	1	9487	1	11168	0	0	0	0
Russia	1	12012	1	10722	0	0	0	0
Finland	1	9658	0	0	0	0	0	0
Ireland	0	0	0	0	1	12687	0	0

Note: \* Information for 2013-2014 is absent, in 2015 partially is closed

Source: compiled by author [1]

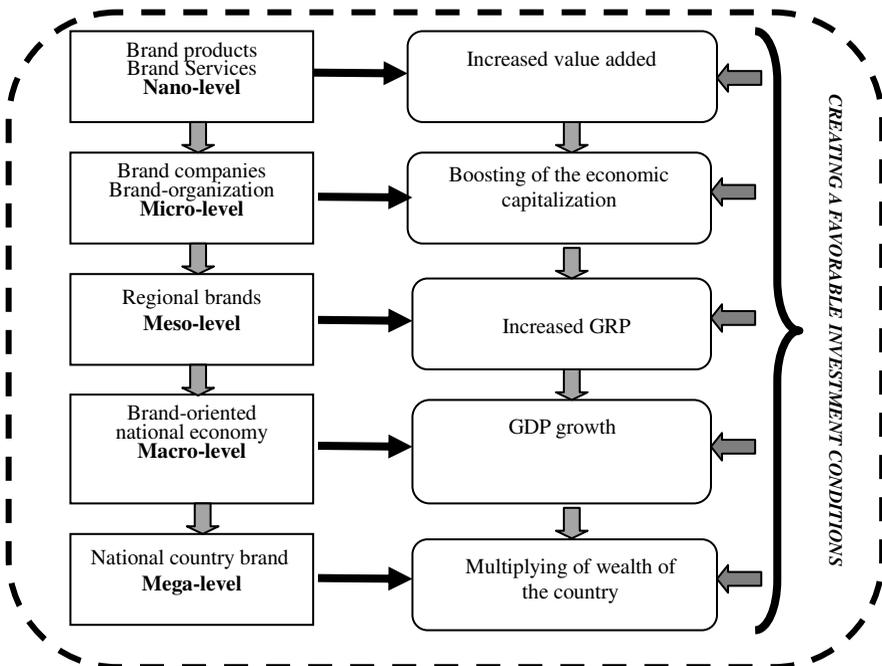
Previous studies have allowed us to consider the brand as a system-forming factor of national economic growth and determine its as instrument of economic development that has an impact on every level of the national economy: nano-, micro-, meso-, macro- and abroad, what is the mega level and shown in *Figure 1*.

*Brand-oriented national economy* we define as a structured in sectoral and territorial space the economic activity that is governed by the relevant institutional system which is aimed to creating a system of multilevel and sectoral governance, stimulate aggregate commercial and noncommercial brands. Under *commercial brands* have in mind unique form of presenting goods, services and events that are manufactured in the country to get the profit, and a list of companies that can be traded.

*Noncommercial brands* are defined as a set of uniquely presented by non-profit organizations, individuals, communities, some areas of the country, national brand of the country. The concept of forming brand-oriented national economy provides for branding is determining both relative to managed object and subjects of the manage and control it; and process of manage that ensures their compliance with international standards of quality management and production.

Each form of the brand has a special role in the socio-economic development of the country that is evident from *Table 2*.

Architecture brand-oriented national economy should be regulated according conjuncture (situational) predictable changes of the world market that will ensure its efficiency and competitiveness.



**Figure 1: Vectors brand's impact on economic development**

Source: compiled by author

**Table 2**

**Role various forms of brand in the socio-economic development of the country**

No.	Forms of the brand	The role in the socio-economic development of the country
1	Brand product	The increase added value, creation of conditions for increase of wages and taxes to the budgets of all levels; expansion the consumer market
2	Brand tourist services	Assistance to develop SME's businesses and related sectors
3	Brand medical services	Determining the social balance in the society; ensure the quality and long lasting of life
4	Brand telecommunications services	Provide society with information, creating conditions for effective development of material and non-material production
5	Brand Educational Service	Increases intellectual potential of the country
6	Brand company	The increase in capitalization and liquidity of its assets, increased activity financial and credit system of the country, the solution of socio-economic, environmental, demographic problems of the regions
7	Brand person	Improving the regional images in the country, increased investment, export and change its structure
8	Brand territory	The development of the territory, increased tourist flows and gross regional product, to improve environmental and socio-economic living conditions, human wellbeing
9	Branding of state authorities	Creating favorable conditions for investment; improving the socio-economic, environmental and demographic living conditions
10	Brand-oriented national economy	Improving the investment climate, increase competitiveness and efficiency, GDP growth

Source: compiled by author

Table 3 shows that the brand-oriented direction of the national economy correlates with its branch structure.

**Table 3**

**Comparing the architecture of the national economy and brand-oriented economies' architectures of the world**

No		USA	Switzerland	Sweden	UK	South Korea	Germany	France	Japan	Spain	Ukraine
1	GDP per head 2015 (thousand \$)	55,9	82,2	48,9	44,1	27,5	41,3	37,7	32,5	26,3	<b>2,1</b>
2	Services (%)	79,6	72,6	64,7	79,6	59,7	69,1	79	75,7	72,6	<b>62,7</b>
3	Industry (%)	19,2	26,7	33,5	19,7	38	30,2	19,3	22,8	24,2	<b>24,4</b>
4	Agriculture (%)	1,2	0,8	1,8	0,6	2,3	0,7	1,7	1,5	3,3	<b>13,3</b>
5	Total (%)	100	100	100	100	100	100	100	100	100	100

Source: compiled by author according to the International Monetary Fund

Analysis of the structure of the brands that entered the top 50 brands according BrandFinance company in 2015 (Table 4) showed that in the USA 60.1% of total commercial brands are made in the IT industry, in South Korea 80.8%, in the UK 90.9%. It is no coincidence as the most added values obtained exactly in this area.

However, in France and Spain, the largest share of the cost of commercial brands belonging to services. In France, it is telecommunications and banking services in Spain only banking services. Switzerland is represented by one global brand of food industry as Nestle, Japan with three automotive brands (Toyota, Mitsubishi, Honda). At the same time, the structure of domestic commercial brands value, none of which are mentioned in the rating represented 61.1% on brands telecommunications, logistics, postal services, 24.2% food brands.

**Table 4**

**Sectoral structure of the Ukraine and countries brand of the Top-50 in 2015**

(%)	IT	Services	Food	Automotive	Other
USA	60	24,4	5,2	7,3	3,0
South Korea	80,8	0,0	0,0	19,2	0,0
China	33,1	66,9	0,0	0,0	0,0
Germany	31,5	0,0	0,0	55,8	12,8
UK	90,9	9,1	0,0	0,0	0,0
France	9,2	90,8	0,0	0,0	0,0
Spain	0	100	0	0	0
Switzerland	0	0	100	0	0
Japan	0	0	0	100	0
Holland	0	0	0	0	100
Ukraine	0	61,1	24,2	0	14,7

Source: compiled by author according to [1]

Branding of the national economy will change its structure in favor of high-tech industries that contribute, in turn, develop other spheres of human activity. The existence of the impact of the national economy in the brand-oriented format to

increase its efficiency confirmed the expectation index correlation of the coefficient of country branding and qualitative indicators of the national economies of eleven countries that is presented in *Table 5*.

**Table 5**

**The list of indicators that depend from the coefficient of country branding**

<i>No.</i>	<i>The indicators that depend from the coefficient of country branding</i>	<i>Value*</i>
1	Average wages (thousand \$)	0,9132
2	Total exports per one citizen (\$ pro person)	0,9014
3	Direct investment in the country per one citizen (\$ pro person)	0,8807
4	Scientific capacity of GDP (% to the GDP)	0,6528
5	The number of tourists per one citizen	0,5447

*\* The country branding ratio is calculated by the author's method as the ratio of the total commercial brands value and regional brand to its GDP. This ratio is calculated for eleven countries, brands are totaled of TOP-100 in 2016 according the company BrandFinance;*

*Source: compiled by author according to [1]*

**CONCLUSIONS**

The study of the brand, its impact as an instrument of economic development at all levels of the national economy proves the necessity to create brand-oriented national economy, its efficiency and competitiveness in the global market by optimizing its sectoral architecture (structure), additional cost at all levels of the national economy, increasing exports and investments, the number of tourists, economic capitalization of domestic companies and the liquidity of its assets. Ukraine needs to find its own path to economic growth that is impossible without technological shifts in the economy, implementation of innovation that foreseen a vector industrial development and logically fit into the model format brand-oriented national economy.

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# AGRICULTURAL DEVELOPMENT TO THE FOOD SECURITY

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**Abstract:** *The article reveals the peculiarities of agricultural enterprises as an object of investment. The main methods of financing agricultural enterprises of Ukraine's agricultural sector, which includes: public funds, self-financing, leasing, selling, crediting, investments, grant funding, forfeiting, mobilizing savings and factoring. The solutions to the major problems that arise when investing financial resources in the economic activity of agricultural enterprises have been proposed.*

**Keywords:** *farms, investments, public funding, investment attractiveness, financial resources*

## INTRODUCTION

Nowadays a third part of world reserves of black earth, which is the most fertile soil, is located in Ukraine, and together with favorable temperature mode; it can create ideal conditions for development of agricultural enterprises in the country. Development of agricultural sector is proved by the fact, that share of agriculture in GDP (including forestry and fisheries) increased by 3.3% from 2008 to 2015; from 7.5% in 2008 to 10.8% in 2015. Added value, generated by agriculture, increased by 74% during 2003-2015, while other sectors of economy together grew by only 24%. The share of agriculture in employment of Ukraine has remained virtually unchanged, i.e. 18% in 2000 and 17% in 2015. Rural population occupies 32% (14 million people) of the country's population.

## MATERIALS AND METHODS

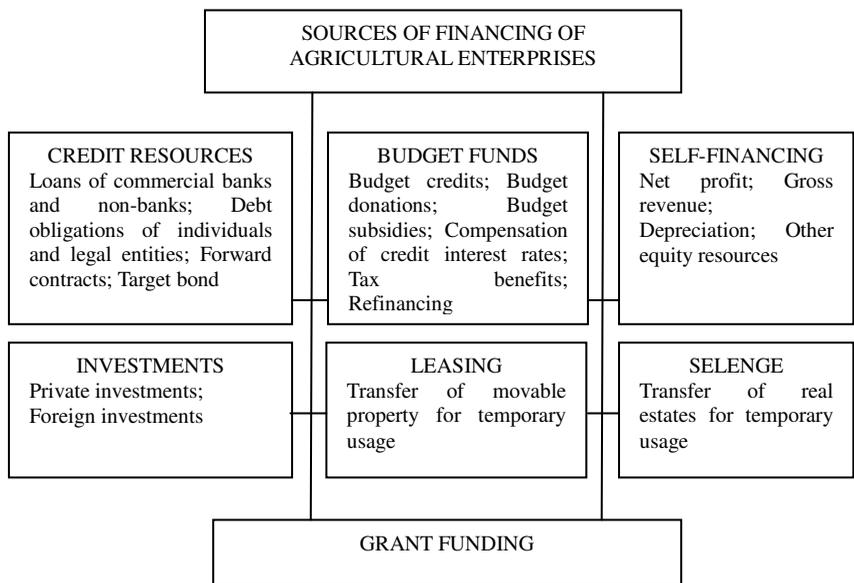
The issue of investment attractiveness of agricultural enterprises was studied by local scholars including N.I. Bilyak, V.V. Borschevskyy, I.I. Vinichenko, A.P. Lajko, P.I. Haidutskyy, B.V. Hubskeyy, B.M. Mykytyuk, O.V. Oliynyk, H.M. Pidlisetskyy, P.T. Sabluk, V.P. Savchuk et al. They studied factors that define investment attractiveness of the state, region and individual industries. However, questions of assessment of investment attractiveness of agricultural enterprises considering their characteristics, including specific activities, spatial location and balance of financial gaps are still not well studied.

*The aim of the article* is to determine specific features of agricultural enterprises as an object of investment.

## RESULTS

The main feature of agricultural enterprises is usage of land as the main mean of production. Comparing with the industry, where fixed assets have ability to deteriorate in physical and mental way, in case of correct exploitation, land resources have an ability to improve their capacity, which automatically raises its

market value. A large number of agricultural enterprises are characterized with decentralization of production. It is connected with climatic conditions at certain areas or at certain regions, with territory relief, fertility of soil, configuration of land and other natural factors. Main sources of financing of agricultural enterprises of agricultural sector are: budget (state and local budgets); own funds of enterprises; credit and investment resources; leasing and other financing for obtaining machinery and equipment (*Figure 1*).



**Figure 1: Methods of financing of agricultural enterprises**

*Source: created by author according to [1-2]*

Specific character of agricultural sector leads to financing of agricultural enterprises from state budget. While creating state agrarian policy all peculiarities, relevant to agricultural sphere, are taken into account. These include: 1) permanent reduction of level of purchasing capacity, which is connected with devaluation of national currency and inflation processes occurring in the country; 2) low level of scientific and technological progress and advanced technologies that causes significantly higher costs of production; 3) reduction of soil fertility; its restoration requires significant financial resources; 4) lack of infrastructure facilities for storage and processing of agricultural products; 5) gap in stable economic and technological links between different areas of agriculture.

Due to insufficiency of financial resources of state and local budgets, funds should be directed to the main activities, which are aimed to promote systemic development of the industry as a whole and individual enterprise in particular, among them [1]: 1) scientific and technical research, in particular in areas of elite seed

production and livestock breeding; 2) introduction of resource-saving technologies; 3) investing on the basis of sales of agricultural products with a focus on foreign markets; 4) creating agricultural clusters; 5) conducting agricultural fairs; 6) focus on financing industries which potentially will have a positive impact on reducing costs and improving product quality; 7) development of rural infrastructure; 8) improvement of profession education of agricultural specialists; 9) implementation of government contractual work.

Own funds of agricultural enterprises are a depreciation and retained earnings, i.e. they remain the main financial resource for business development. However, depreciation, being in the cost of agricultural products, is too low to ensure possibility for enterprises to finance themselves, especially for development.

Equipment and technology leasing is one of the main financial resources that focuses on the development of enterprises in European countries. In Ukraine volume of leasing transactions is from 800 million to 1 billion UAH per year, which is insignificant indicator for the industry. Credit ensuring of agricultural enterprises in Ukraine is not sufficiently developed as commercial banks do not take into account seasonal features of agricultural economy. So agrarian enterprises are unable to obtain long-term loans and usually use short-term credit facilities, which cause insolvency of borrowers. Majority of agricultural enterprises in our country cannot rely on long-term bank loans, as their fixed assets are physically and mentally worn out and banks do not will to take them on bail, and bail rate reaches 150-200% of the loan in average. However, amount of credit resources that commercial institutions have provided to agricultural enterprises in recent years are constantly increasing. According to D. Ricardo, to get a loan from a bank an enterprise needs to show a positive correlation between the profit rates, which will be acquired on borrowings and interest rate of a loan [2].

In practice, it can be illustrated in following way (*formula 1*), where  $PN$  is profitability rate (return);  $BN$  is the rate of interest on loan:

$$PN \geq BN, \tag{1}$$

Small farmers often use credit funds, received from individuals (relatives, friends) with low interest rate or completely interest-free rate.

Funds of foreign and national investors should be the main financial resources for development of agricultural sector in Ukraine. However, investors primarily pay attention to specific features of financing of agricultural enterprises.

Considering investors point of view, one of the main features of agricultural enterprises as an object of investments is time extension from investing financial resources to receiving profit from business performance, which mainly occurs due to differences between the working period (cultivation of land, boarding and sowing, plants growing, harvest) and the period of production, which is influenced by environmental factors (growth and maturation of plants). So, receiving of profit from economic activity is seasonal and occurs according to natural processes, on the other hand investment funds are permanent and spent on salaries for agricultural

workers, purchase of animal feed and fertilizing substances for plants. Also, considerable funds are spent on vehicles and fuels and lubricants.

To ensure continuity of production processes agricultural enterprises do not realize all harvested products, they use them as seed, feed or young animals or undergrowth to start a new production period. Since these products remain at the enterprise and will not be realized and therefore not converted into financial resources, a company does not include them in composition of marketable products and reduces financial benefit from the previous cycle of production. Preservation of planting materials, young animals or undergrowth entails additional costs for construction of production facilities.

Inconsistency of production and working period at agricultural enterprises indicates a major difference from enterprises operating in other areas. Seasonality of production, especially in agrarian enterprises, engaged in vegetable production, has a direct impact on usage of labor and other current assets. However, in case of urgency current assets need to be ready to be involved immediately into the manufacturing process, as even a minor delay will have negative trends at production process, which can lead to significant financial costs. A special attention is paid to harvest, which time duration can last 1-2 weeks and delay in the process can lead to complete loss.

Peculiarity of productive activities in agriculture and especially in farming (main part of work is done from several days to several weeks) are requirements for vehicles, which determine the final cost of manufactured products, the less fuel costly and more universal machines are, the lower price will have products and more competitive they will be at international markets.

Among specific features of agricultural production, we can also highlight diversified structure that can exist even within a single agricultural enterprise. Despite economic and technological development, advanced and simple reproduction, optimal workforce engagement, soil fertility and other processes, occurring during production processing, form multifaceted structure of agricultural enterprises. Quality of technical support and usage of technology is one of key features. Considering that agricultural enterprises have movable means of production (tractors, harvesters, cars and other equipment), objects of labor remains at the same place, farms highly depend on means of production and their need in energy resources is much higher comparing with companies in other sectors.

Specific features of performance of agricultural enterprises have impact on investment process and, therefore, investment in farms depends on two factors: 1) risks of investment return; 2) level of uncertainty, which is effected by features of agriculture. Agricultural enterprises operate in conditions of significant amount of risks in comparison with other industries companies. Beside traditional there are also natural risks (environmental, weather and biological).

Agriculture is also characterized by territorial decentralization of production; it is particularly noticeable in crop and horticulture. This decentralization complicates process control and carries additional risks for timely work. Agrarian enterprises do not belong to attractive areas of investment resources. Therefore, to improve

investment climate in this sector the state should use its own leverage, which will positively influence on investment attractiveness of agricultural enterprises and will consider characteristics of their business.

## **DISCUSSION AND CONCLUSIONS**

To improve investment attractiveness of agricultural enterprises the state should implement following actions:

1. To increase state budget funds for development of agricultural sector, that will positively affect financial situation of agricultural enterprises and enable them to form their own financial resources for business development.

2. To set tax-free mode for farms that spend significant financial resources for technical upgrading using advanced technologies. Such conditions should remain until complete update of agricultural machinery at enterprises.

3. State compensation of interest rates on credit resources invested in development of business.

4. To provide an opportunity for agricultural enterprises to buy agricultural machinery by possibility to get loans from state banks.

5. Establishment of agro-food markets at regional centers.

Public-private partnership is an additional incentive to invest funds in agricultural business. It will protect investors from a considerable number of risks and save public resources for development of agriculture.

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## NACHTRAG

Die Autoren der Publikationen übernehmen persönliche Verantwortung für das Ergebnis der eigenen wissenschaftlichen Forschung.

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