International Journal of Engineering & Technology, 7 (4.3) (2018) 550-556



International Journal of Engineering & Technology

Website: www.sciencepubco.com/index.php/IJET



Research paper

The Convergence of The Systems of Education at Scottish and Ukrainian Universities in the Context of Ethic Leadership

Denys Zagirniak¹*, Inna Khovrak¹, Viktoriia Perevozniuk¹

- ^{1,} Kremenchuk Mykhailo Ostrohradskyi National University,
- *Corresponding author E-mail: deniszagirniak@gmail.com

Abstract

The globalization of educational space shows that university education should meet the needs of society based on the ethical principles of interaction between participants of educational process and use innovative teaching methods. Therefore the purpose of the study is to substantiate the importance of convergence of systems of education at Scottish and Ukrainian universities in order to provide ethical leadership in the field of education. A systematic approach to the realization of the purpose of the study allowed solving the main tasks: systematization of the strengths of Scottish education, justification of the impact of university social responsibility on providing ethical leadership in education, comparing the main indicators of the process of providing educational services in Scotland and Ukraine.

As a result, it is established that the synergetic effect from the application of the concept of ethical leadership is achieved as a result of the interaction of all participants in the educational process, namely: the state (awareness and realization of the social mission to develop the potential of youth); universities (development of educational programs taking into account the needs of modern society and the use of teaching methods capable of forming the necessary competences for future specialists); students (interest in obtaining quality education).

Keywords: Education quality; educational services; ethic leadership; social responsibility of the university; systems of education; teaching methods.

1. Introduction

The globalization of the educational space and the increase of the requirements to educational services calls for the alteration of the strategic priorities of universities, renewal of the curricula, the use of innovative teaching methods and the awareness of social responsibility. British scientists consider [1, p. 1194], that the high level of responsibility and ethics at universities increases their social credit. Besides, one of 17 goals of the sustainable development posed by the United Nations Organization consists in highquality education (goal SDG4); according to these goals, it is planned to achieve the equal level of the access to high-quality technical, professional and higher education for women and men by 2030 [2]. High-quality university education influences the achievements of the goals related to poverty overcoming (SDG1); improvement of citizens' health and welfare (SDG3); provision of worthy working conditions and achievement of economic growth (SDG8); formation of the culture of responsible consumption and manufacture (SDG12); overcoming the negative consequences of climate change (SDG13); provision of peace, justice and strong institutes (SDG16).

It is for this reason that one of the main priorities of the leading countries consists in the creation and support of such an education system that takes into account the ethical principles of the interaction of the education process participants, meets the requirements of the society and is able to develop the potential of the youth. Accordingly, the world leading universities are apprehended not only as scientific and educational institutions but also as ethical centers that are able to educate responsible citizens.

Also, according to the UNO principles concerning the issues of responsible business education [3], curricula are to represent international values related to the guarantee of human rights, taking into consideration the ecological responsibility, the observance of labor rights and opposing to corruption. Besides, the efficiency of training socially responsible specialists depends both on the lecturers and the students [4]. That is why the leading universities pay great attention to the clarity of the educational activity, the quality of teaching and scientific research, the observance of the principles of academic integrity and ethics. Accordingly, under the contemporary conditions, the traditional methods of teaching educational disciplines, the formation of curricula and the determination of the priorities of the development of universities are not sufficiently efficient and require considerable correction taking into account the world experience.

2. The Purpose and Objectives of Research

The purpose of the research consists in the substantiation of the importance of the convergence of the systems of education at Scottish and Ukrainian universities with the aim of provision of the ethical leadership in the field of education.

The system approach to attaining the research purpose requires the solution of the principle tasks: the systematization of the strong aspects of Scottish education, the substantiation of the university responsibility influence on the provision of the ethical leadership in the field of education, the comparison of the main indicators of the process of educational services provision in Scotland and in Ukraine.



3. Literature Review

The necessity for reforms in the field of higher education is recognized by the educational community of both the leading Western universities and the educationalists in post-Soviet countries. However, the directions of the transformations can be diametrically opposite: from the commercialization of the university education to strengthening the social responsibility of the state and universities. José Ortega y Gasset presented a classical research of the university education as a certain cultural and social practice. The topicality of the author's ideas has not changed during 70 years but, on the contrary, it acquired a new content in the new realities [5]. The research of Martha Nussbaum contains a "call on action", a plan in which an education model that undermines the foundation of democracy is substituted by a model that promotes its development [6]. Bill Readings's book is highly valued in the world due to the philosophic comprehension of the history of the Western university and its significance at the present time [7]. Michael Shattock assures that the success of the higher educational establishment results from the quality of education and not from the quality of management. However, the level of management creates conditions for the prosperity of education and science [8]. Professors' perception of the hard state of higher education in Great Britain is presented in T. Hussey and P. Smith's monograph [9]. On the model of universities from different continents Burton Klark demonstrates their adaptation to new requirements of the economy and the society [10]. It is also substantiated that the efficiency of teaching with the use of innovative methods is much higher than that with the use of the traditional approach [11]. It should be noted that, while popularizing success in education and science, scientists dispute as to the search for the compromise between the classical values and the modern guidelines of the development of the university education [12-14].

4. Results

Ethic leadership in the field of education is to be based on highquality education, innovative teaching methods, student-oriented study and social responsibility of the state, universities and students. Accordingly, the synergy effect of the use of the concept of ethic leadership is achieved due to the interaction of all the participants of the educational process, namely:

- the state that comprehends and realizes its social mission as to the development of the potential of the youth;
- universities that work out curricula taking into account the requirements of the contemporary society and use teaching methods that are able to generate the future specialists' necessary competences;
- students who are interested in obtaining knowledge.

The modern system of higher education in Scotland, which is one of the guidelines of the reformation of the higher education system in Ukraine, is formed by classical Universities, University Colleges, Polytechnics and Colleges of Higher Education. In general, there are 74 of them, 14 of which are State Universities. The generation of the education policy remains at the discretion of the higher educational institution but the state controls the quality of teaching. One of its instruments includes regular study of its correspondence to high standards of education, which is carried out within the frames of Research Assessment Exercise (RAE). Besides, Scottish higher educational establishments work under the supervision of Quality Assurance Agency, QAA that controls the observance of all the requirements and encourages the higher educational establishments to constantly improve programs proposed by it. QAA reports are published at the site of this organization and cover the educational courses provided by Scottish higher educational establishments both in Great Britain and abroad.

According to a multi-level model, higher education is divided into two stages: Degree courses or Undergraduate courses) and Postgraduate studies. In England, Wales and Northern Ireland threeyear Degree (Bachelor) courses are typical; in Scotland four-year courses are more usual. On the completion of the course the graduate is given Bachelor's Degree (the same as First Degree). About 10% of students taking Bachelor programs are foreigners. Postgraduate studies last one year unlike two-year programs in other English-speaking countries. The share of foreigners among the future Masters is much bigger than in Bachelor programs and often makes up to 45% of the total number of the students. Doctor training system crowns the pyramid of higher education. To get the degree of PhD (Philosophy Doctor) in a certain field of knowledge it is necessary to take a three-year course and defend a thesis

Enrollment to the Degree courses in Scotland is strictly centralized. The procedure of enrollment is carried out by Universities and Colleges Admission Service (UCAS). Every university entrant is entitled to indicate up to five desired courses in one application. Most applications are submitted via the electronic system UCAS Apply. Formally, applications are considered till June 30, but it is better to send them before the middle of December to be on the safe side. If a university entrant wants to take a course in medicine, stomatology, veterinary (medical or scientific), the application should be submitted before October 15. If several universities agree to enroll the student, he/she should make a decision as to the choice of the university and inform the university about this decision before July. At last, in August the final confirmation of the enrollment to the first year of education arrives. UCAS does not take applications concerning enrollment to the part-time or correspondence form of education, so, to submit an application it is necessary to address the relevant educational establishment.

A certificate of comprehensive secondary education A-level or an International Baccalaureate (IB) certificate is the grounds for the enrollment to the first year of education at a Scottish university. IB program includes 12 years of study. It should be mentioned that in many countries of the world there are schools operating within its frames; since 2018 12-year study has also been introduced in Ukraine. A university entrant who completed an IB course and wishes to enter a British university does not have to take any additional tests; it is only necessary to send the package of documents to the selected higher educational establishment (or several establishments) indicating the score of the final examinations and wait for the resolution of the acceptance board. The higher the total score is the better chance the entrant has to be enrolled into a prestigious university. The preparatory program Foundation presents another way. Such programs are created at many universities and successfully prepare foreign entrants to enrollment. There are more universal Foundation programs, they work at international

Independently of the type of the educational establishment the program of the preparation for the university implies improvement of the English language (if at the "input" the entrants show the score results of 5.0-5.5 points by IELTS (International English Language Testing System) scale, at the "output", after a year of study by the Foundation program, this score increases up to 6.5-7 points, which is considered sufficient for the entrance); the revision and systematization of the school knowledge as well as study of some new disciplines (business, management, mathematical statistics, philosophy, etc.) and mastering academic skills (the ability to take notes of lectures, write essays, make oral reports, prepare and defend papers. etc).

It is also possible to obtain a Scottish degree taking a course of incomplete form of education, a course of distant education or a program on the basis of electronic education. Such programs are based on the packages of teaching materials studied by the student or on-line technologies [15].

Scottish universities, trying to stand out at the background of the total British system, constantly improve teaching methods and enhance the quality of the education process. On the whole, Scotland is a very popular place to obtain higher education. The possible reasons for this may include the following ones:

 four out of six oldest universities in the United Kingdom are located in Scotland: St Andrews, Glasgow, Aberdeen and Edinburgh. All these universities and some others occupy the top positions in Great Britain ranking and many of them are the best higher educational establishments as to certain disciplines:

- the list of outstanding scientists who worked at Scottish universities includes the inventors of the steam engine, television and telephone, one of the creators of the cervical cancer vaccine and the inventor of penicillin;
- and, finally, a significant advantage for the choice of a Scottish university consists in the absence of payment for the first stage of education (Degree courses) for the citizens of Scotland and EU, lower cost of many programs, in comparison with the cost of study in higher educational establishments of England, while the cost of living in Scottish cities is much lower than in the English ones. At present, when 9% of English population live in Scotland, 15% of English students study in Scottish universities.

The Scottish experience also confirms that ethical leadership in education is a manifestation of both social responsibility and the social consciousness of the institution [16, p. 1380]. That is why the social responsibility of universities and education on the whole is an important aspect of providing educational services in Scotland. It should be added, that common practice among Scottish universities is to develop a strategy for the social responsibility of universities, which takes into account international standards and declarations.

It is important to realize, that social responsibility arises with the formation of civil society and is a prerequisite for its existence [17, p. 202]. However, the Ukrainian community only begins to gener-

ate understanding that "modernization is to start with the adoption of the social responsibility values that form the all-European social capital" [18, p. 492]. Ukrainian universities just begin to use the basic instruments of social responsibility (Fig. 1). That is why it is necessary to analyze in detail the Scottish experience of the development and realization of responsible social initiatives (Table 1), that could be the basis for developing strategies for social responsibility by Ukrainian universities.

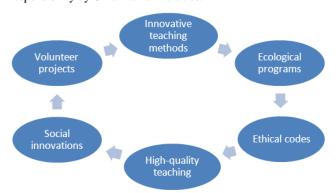


Fig. 1: Basic direction of the realization of the concept of social responsibility in Ukrainian universities*

Table 1: The characteristic of the basic priorities of university social responsibility in Scotland*

	characteristic of the basic priorities of university social responsibility in Scotland*	
University	Basic priorities of social responsibility	
Abertay University	Sustainability Teaching and Research	
	Partnership and Learning in the community	
	Procurement Strategy	
	Widening Participation Strategy	
	Carbon Management Plan	
	Sustainable Travel Policy	
	Sustainable Food Policy	
	Environmental Policy	
	EcoAbertay (Project is working to reduce carbon emissions within the university and lead students to a	
	greener lifestyle)	
University of Dundee	Disability Services	
University of Edinburgh	Sustainability Awards	
	Switch energy engagement and communications	
	Resource Efficiency and Circular Economy	
	Sustainable laboratories	
	Sustainable travel	
	Fairness in trade and sustainable procurement	
	Social responsibility & sustainability learning and development	
	Community engagement	
University of Glasgow University of St Andrews	The Banner Tales project (a collaborative initiative involving the School of Geographical and Earth	
	Sciences, Glasgow Museums and GMB Union)	
	Bass Culture in Scottish Musical Traditions (a project in collaboration between the University of Glas-	
	gow, the University of Cambridge and the Royal Conservatoire of Scotland)	
	Our Health Project	
	Within the University's Student Services team, there are disability and specific learning difficulties	
	advisers.	
	St Andrews is committed to providing support for students with families in order to make sure parents	
	1 0 11	
	are confident about joining University.	

^{*} created by the authors on the grounds of references [19-23]

Achievement of the ethical leadership in the field of education, as mentioned above, is possible if there are modern and student-oriented curricula and innovative teaching methods. The teaching method as a result of the synergic interaction of the participants of the educational process is formed under the influence of the specific features of providing educational services in different countries (Table 2). We propose to compare the Business School of Abertay University (Scotland, Dundee) and the Department of Economics and Management of Kremenchuk Mykhailo Ostrohradskyi National University (KrNU) (Ukraine). The chosen universities are similar as to the anthology of their development as

they were founded as polytechnic educational establishments but under the modern conditions they are classical universities. The mentioned universities are also similar as to the number of the students and the lines of their training. Though, it should be added that there is a considerable difference in the cost of study: 9000 pounds a year in Scotland and 10,000 UAH (which makes 260 pounds) a year in Ukraine. However, if the cost of study is compared with the average level of payment in each country [24–25], then the yearly cost of study in Scotland equals 39% of the yearly payment for work and the yearly cost of study in Ukraine is 12% of the yearly payment for work.

^{*} created by the authors

Table 2: The comparison of the basic indicators of the process of providing education services*

Table 2: The comparison of	the basic indicators of the process of providin	
Indicators	Abertay University Dundee Business School	KrNU The Department of Economics and Management
Number of educational programs:		, v
– Bachelor level;	3	8
– Master level	1	8
2. Term of study:		-
– Bachelor level;	3 v.10 mon.	3 y.10 mon.
– Master level	6 mon., 9 mon. or 1 y. 4 mon.	1 y. 4 mon.
Type of the document certifying obtained education: Bachelor level;	· · · · ·	,
	Bachelor's certificate or diploma (with a thesis)	Bachelor's diploma
– Master level	Master's certificate, diploma, Master's research diploma	Master's diploma
4. Structure of the educational program:		
 normative disciplines; 	85 %	66 %
 optional disciplines 	15 %	34 %
		(27% of which are selected by the department, 7–free choice of the student)
5. The number of disciplines per academic year	6 (3 per term)	16 (8 per term)
6. Types of control of students' knowledge	Termly	Current, termly
7. Duration of one class	55 minutes	1 hour 20 minutes
8. Duration of a term	15 weeks	15 weeks
9. Cost of study:	13 weeks	13 weeks
- Bachelor's level	free of charge	free of charge (if there is government order)
for native citizens	nee of charge	or 10,000 Ukrainian hryvnias (260 pounds) a year
- Foreigners (apart from EU citizens)	9000 pounds a year	1000 pounds a year
- Master's level for native citizens	9000 pounds a year	10,000 Ukrainian hryvnias (260 pounds) a vear
10. Share of students who study at the expense of the gov-		
ernment order:		
- Bachelor's level;	85 %	32 %
- Master's level	0 %	36 %
11. Share of students who continue study taking the Master's course	9 %	72 %

^{*} created by the authors

A comparative analysis of the initial conditions of the generation of teaching methods at Scottish and Ukrainian universities revealed the existence of a number of differences. The duration of study at the educational establishment to obtain a Bachelor's degree in Scotland and in Ukraine is four years. Curricula flexibility is typical of Scottish universities. The students have the opportunity to study various disciplines even if they are taught at different departments. The graduates can obtain joint degrees e.g. in the field of accounting and economics [26].

The content of Bachelor's and Master's curricula is considerably different at Scottish and Ukrainian universities. Let us consider the Bachelor course curricula in the specialty of "Accounting and Finance" at Abetray University and at KrNU. During the first term of the first year of study a student is proposed at Abertay University three normative disciplines: Introduction to Accounting, Nature of Management, Financial Economics for Business, during the second term two normative disciplines: Financial and Management Accounting, and Information Systems are proposed and it is suggested to choose one discipline out of the list of the optional ones. Every normative and optional discipline is divided into 20 credits, which makes 120 credits per year. The share of obligatory disciplines is about 83.3-87.5 % (on average, at the Bachelor's and Master's courses it makes 85 %), the share of optional disciplines is 12.5-16.7 % (on average the share of the block of optional disciplines at the Bachelor's and Master's courses makes 15 %). In KrNU normative disciplines are divided into three cycles: a cycle of humanities and disciplines for social and economic training, a cycle of disciplines for natural-scientific and general economic training, a cycle of disciplines for professional and practical training. There are also optional disciplines and practical training. Optional disciplines are grouped into profession-oriented disciplines (they are chosen by the department dean who works out the

curriculum for every specialty) and disciplines chosen by students. The share of the obligatory disciplines (including practice, writing the final paper, attestation) is about 62-70 % (on average it makes 66 % at the Bachelor's and Master's level), optional disciplines: profession-oriented - 23.3-28.9 % and freely chosen by a student - 6.7-10 % (on average the block of optional disciplines at the Bachelor's and Master's level makes 34 %). The total number of ECTS credits (European credit transfer system) is 30 per term, 60 per year. The optimal volume of one obligatory discipline per term is to include 5-6 ECTS credits (but no less than three ECTS credits). The total number of disciplines (including practices) per academic year should not exceed 16 (or eight per term). The total number of hours per term of all the types of educational work is 900 hours or 30 ECTS credits. It should be noted that one credit in Scottish higher educational establishments equals 10 hours and one ECTS credit in Ukrainian higher educational establishments equals 30 hours.

Thus, the total number of credits a year at Abertay University (120 credits) equals 1200 hours, and the total number of ECTS credits a year at KrNU (60 credits) equals 1800 hours. All the disciplines at Abertay University contain the same number of credits (20), at KrNU the disciplines contain different number of ECTS credits (from three to six ones). According to ECTS (credit-transfer system) it is considered that some disciplines are more difficult than others, so they are to contain different number of credits depending on their complexity.

A generalized structure of the curricula for the Bachelor's and Master's levels by the example of Abertay University and KrNU is shown in Fig. 2, and the detailed scheme of the optional part is given in Fig. 3. The performed analysis revealed differences between the Scottish and Ukrainian experience, namely:

a)

- the share of the normative disciplines in Scottish universities is 83.3 % at the Bachelor's level, 87.5 % at the Master's level; while the share of this block of disciplines in Ukrainian universities is 70.0 % at the Bachelor's level and 62.0 % at the Master's level;
- the share of the optional disciplines in Scottish universities is 16.7 % at the Bachelor's level, 12.5 % at the Master's level (all the optional disciplines are chosen by the student); while

the share of this block of disciplines in Ukrainian universities is 30.0 % at the Bachelor's level and 38.0 % at the Master's level, the student chooses only 6.7 % and 10.0 % of them respectively;

students of Scottish universities have more possibilities for the choice of optional disciplines, as they choose four optional disciplines out of 46 possible ones at the Bachelor's level and one discipline out of six at the Master's level.



Optional disciplines

- Master

 6,7 6,3

 Bachelor 17,7

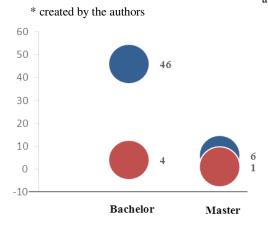
 28,9

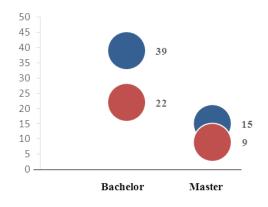
 46

 47,5
 - Normative disciplines: The cycle of humanities and social-economic training
 - Normative disciplines: The cycle of natural-scientific and general economic training
 - Normative disciplines: The cycle of professional and practical training
 - Optional disciplines: Profession-oriented disciplines
 - Optional disciplines: Disciplines for student's free choice

Fig. 2: The structure of the curricula for the Bachelor's and Master's levels, taking as an example: a) Abertay University; b) KrNU*

b)





Available variants
 Required number

Available variants • Required number

Fig. 3: The number of available possibilities of optional disciplines and their number required by the curriculum for the Bachelor's and Master's levels, taking as an example: a) Abertay University; b) KrNU*

* created by the authors

As to the freedom given to the students in the choice of disciplines, Abertay University is in the first place, as at KrNU the study of optional disciplines of the curriculum is planned beginning from the third year and, as stated above, makes 6.7 % at the Bachelor's level and 10.0 % at the Master's level. However, at Abertay University the students have a possibility to choose one discipline from the list of optional ones at their discretion every year, so, the optional part of the curriculum at Abertay University makes 16.7 % at the Bachelor's level, 12.5 % at the Master's level.

Also, it is necessary to mention a considerable difference in approaches to the creation of the curricula. The absence of general educating disciplines in the curriculum of Abertay University and a rather small number of disciplines, six per year (only three per term), indicate to a narrower field and profession orientation of the education. It may be caused by the notion of education in the Scot-

tish and British community. Thus, Scottish universities provide high-quality education and equal access to it and try to bring up conscious and responsible youth elite. As to the curriculum of KrNU, the fact that it contains about 16 disciplines per year (eight per term), including required disciplines for general education, indicates a wider Ukrainian education directed to the development of the comprehensive mental outlook. It should be noted that many disciplines taught at KrNU, the specialty of "Finance and Credit", are also available in the curriculum of the specialty "Accounting and Finance" at Abertay University but some of them are joint and are studied as separate topics or chapters within one discipline. This fact, as well as the big number of hours (1800) in comparison with the number of hours at Scottish higher educational establishments (1200), is to certify a rather profound level of the study of disciplines in Ukrainian higher educational establishments

lishments, but there are a lot of problems related to providing high-quality education; e.g. extremely weak material resources in comparison with strong material resources of the Scottish universities. The educational process cannot be complete and of sufficiently high quality without equipped lecture rooms and modern laboratories. Another problem, which is, to our opinion, the main one on the national scale, is the status of the lecturer's profession at present and its motivation. What quality of the education can be in the country where the lowest salary of almost all existing ones is paid to a school teacher and a university lecturer, people who are entrusted with a big significance in the community - bringing up its intellectual resources? Here is the root of the problem of corruption at Ukrainian universities, which is ineradicable under the present conditions, and, consequently, the problem of the quality of education and the provided knowledge. The low prestige of the lecturer's profession inevitably results in the eventual deterioration of the personnel quality as the best professionals drop the career of scientist and lecturer or do not take up this profession at

If this problem is regarded in the context of ethical leadership, the lecturer should be the leader of the educational process and only then he/she will be able to influence the development of the person, to bring up and inspire the modern youth to the choice of a socially active and responsible citizen, an ethical leader in the community.

5. Conclusion

It is important to realize that leadership under the conditions of the globalization of the education market is achieved due to the observance of ethical principles in every day activity, as universities are to develop ethical values of the young generation, promote the formation of ethical and democratic community [27, p. 2086]. The ethical and efficient leaderships are tightly interconnected [28, p. 3949], that is why the ethical leadership of universities in the educational space depends on the ethical values of the leader. Also, ethical leadership helps to decrease organizational cynicism [29, p. 476] and increase the level of confidence [30, p. 231]. The Scottish experience has shown that the ethical leadership of universities is based on the concept of social responsibility. That is why it is necessary to pay significant attention to the formation of both the personal level of social responsibility (students, teachers and administration) and university level (social responsibility to external and internal stakeholders). It should be added that the social responsibility of the university requires a systematic and integrated approach, as well as the development and adoption the strategy of the university social responsibility.

The performed analysis revealed that the provision of educational services in Scotland reflects understanding the importance of education at the state level. So, the state provides free study of the youth at the Bachelor's level, creates possibilities for people with specific needs integrating them into the community via the university education. Besides, Scottish curricula are formed transparently and clearly, are based on innovative teaching methods and the high level of educational process hardware, which enables the students to obtain high-quality narrowly-specialized education. Accordingly, a balanced development of both the citizens and the country on the whole is achieved in Scotland. However, in Ukraine there is a situation when the state does not perform its social mission as to the development of the youth, it does not provide the support necessary to obtain education, does not create a positive image of both an educated person who obtained education in the native country and the image and prestige of Ukrainian education in general. Besides, the students are overloaded due to the number of general-education and specialized disciplines (eight disciplines per term unlike three disciplines in Scotland), which decreases their level of motivation, attention and the possibility to spend sufficient time on the study of the proposed disciplines. Therefore Ukrainian youth do not think it prestigious to obtain

education in the native country and hope to acquire the competences of the future leader due to foreign education.

The reform of education is to be oriented to the contemporary needs of the youth and create a positive image of both a person who studies in the native country and a person who has relevant competences and works in the system of education. The examples of this model and its success are proved in Scotland, where obtaining the treasure of education in the native country is considered an ethical value.

References

- [1] Bruce Macfarlane "The ethics of multiple authorship: power, performativity and the gift economy", *Studies in Higher Education*, Vol. 42, № 7, (2017), pp. 1194–1210.
- [2] Higher education and the Sustainable Development Goals [Electronic source], available online: https://en.unesco.org/themes/highereducation/sdgs
- [3] Principles for Responsible Management Education [Electronic source], available online: http://www.unprme.org
- source], available online: http://www.unprme.org
 [4] Hibbert, P. and Cunliffe, A. "Responsible Management: Engaging Moral Reflexive Practice through Threshold Concepts", *Journal of Business Ethics*, (2015), 127: 177–188.
- [5] Ortega y Gasset J. The mission of the university [trans. from Span. by M. N. Golubeva; trans. edit. by A. M. Korbut; gen. edit. by M. A. Gusakovskii], Mn.: BSU, (2005), 104 p.
- [6] Nussbaum M. Not for the sake of profit: why democracy needs humanities [trans. from Eng. M. Bendet; scien. edit. A. Smirnov], M.: Publ. House of the Higher school of economics, (2014), 192 p.
- [7] Readings B. Universities in ruins [trans. from Eng. by A. M. Korbut], M.: Publ. House of the Higher school of economics, (2010), 304 p.
- [8] Shattock M. Managing successful universities, Berkshire: Society for Research into Higher Education & Open University Press, (2003), 201 p.
- [9] Hussey T., Smith P. The trouble with higher education: a critical examination of our universities, New York and London: Routledge, (2010), 153 p.
- [10] Klark B. R. Support of changes in universities. The succession of case-study and concepts [trans. from Eng. by E. Stiopkina], M.: Publ. House of the Higher school of economics, (2011), 312 p.
- [11] Hake, RR "Interactive-engagement versus traditional methods: A six-thousand-student survey of mechanics test data for introductory physics courses", *American journal of physics*, Vol. 66 (1), (1998), pp. 64-74.
- DOI: 10.1119/1.18809
- [12] Zagirniak D. "Educational pragmatism divergence in the context of professional qualification conformity", *Scientific bulletin Polesie. Chernihiv: CHNTU*, № 3 (11). Part 2 (2017), pp. 18–28.
- [13] Pochtovyuk A., Zagirniak D., Pryakhina K. "The problems of training of highly skilled engineers in Ukraine in the context of international tendencies", Proceedings of the 2017 IEEE International Conference on Modern Electrical and Energy System (MEES), Kremenchuk, Ukraine, (2017), P. 340-343. IEEE Catalog Number: CFP17K83-ART ISBN: 978-1-5386-1750-2 DOI: 10.1109/MEES.2017.8248927
- [14] Zagirniak D., Kratt O., Trunina I. "The assessment of the provision of the Industry by electrical engineers", Proceedings of the 2017 IEEE International Conference on Modern Electrical and Energy System (MEES), Kremenchuk, Ukraine, (2017), pp. 356-359. IEEE Catalog Number: CFP17K83-ART ISBN: 978-1-5386-1750-2 DOI: 10.1109/MEES.2017.8248931
- [15] The system of higher education of Great Britain [Electronic resource]. available online: http://www.iciep.ru/www/britain_ed4.cfm
- [16] Hasan Tutara, Mehmet Altınözb, Demet Çakıroglu. "Is ethical leadership and strategic leadership a dilemma? A descriptive survey", Procedia Social and Behavioral Sciences, Vol. 24, (2011), pp 1378–1388.
- [17] Khovrak I. V. "Current regulatory imperatives of social responsibility" Scientific notes of the Institute of Legislation of the Verkhovna Rada of Ukraine, № 1, (2016), pp. 197-203.
- [18] Social responsibility: textbook / A. M. Kolot, O. A. Hrishnova, O. O. Herasymenko et al.; edit. by DSc (Econ), prof. A. M. Kolot. K.: KNEU, (2015), 519 p.
- [19] Abertay University: Environment and Sustainability [Electronic source], available online: https://www.abertay.ac.uk/
- [20] University of Dundee: Disability Services [Electronic source], available online: https://www.dundee.ac.uk/

- [21] University of Edinburgh: Social Responsibility and Sustainability [Electronic source], available online: https://www.ed.ac.uk/
- [22] University of Glasgow: Community and public engagement [Electronic source], available online: https://www.gla.ac.uk/
- [23] University of St Andrews: Support [Electronic source], available online: https://www.st-andrews.ac.uk/
- [24] Eurostat [Electronic source], available online: www.ec.europa.eu/eurostat
- [25] The State committee of statistics of Ukraine [Electronic resource], available online: www.ukrstat.gov.ua/
- [26] The difference in the systems of higher education in Scotland and England. [Electronic resource], available online: https://www.educationindex.ru/articles/higher-education-in-theuk/obrazovanie-v-shotlandii/higher-education-scotland-differenceswith-engkand
- [27] Somprach Kanokorna, Ariratana Wallapha, Tang Keow Ngang, "Indicators of ethical leadership for school principals in Thailand", Procedia - Social and Behavioral Sciences, Vol. 93, (2013), p. 2085–2089.
- [28] Ercan Yılmaz, "The analysis of organizational creativity in schools regarding principals' ethical leadership characteristics", *Procedia* Social and Behavioral Sciences, Vol. 2, (2010), pp. 3249–3953.
- [29] Yar Ali Mete, "Relationship Between Organizational Cynicism And Ethical Leadership Behaviour: A Study At Higher Education", Procedia - Social and Behavioral Sciences, Vol. 89, (2013), pp. 476– 483.
- [30] Raminta Pučėtaitė, "Stimulating organizational innovativeness through ethical leadership practices: the mediating role of organizational trust", *Procedia Social and Behavioral Sciences*, Vol. 156, (2014), pp. 231–235.