How to Cite:
Sabodash, O. A., Kalyakina, I. M., Kosnikov, S. N., Elizarova, N. S., Borisov, E. A., & Sorgutov, I. V. (2021). Economics of education and prospects for its development. *Linguistics and Culture Review*, *5*(S1), 451-459.
https://doi.org/10.37028/lingcure.v5nS1.1430

Economics of Education and Prospects for its Development

Olga Aleksandrovna Sabodash
Pushkin Leningrad State University, Gorbunki village 15, 188502, Lomonosovsky district, Leningrad region, Russia

Inessa Makedonovna Kalyakina
Don State Technical University, Rostov on Don, Russia

Sergey Nikolaevich Kosnikov
Federal State Budgetary Educational Institution of Higher Education «Kuban State Agrarin University named after I.T. Trubilin» 350044, Russian Federation, Krasnodar Krai, Krasnodar city, Kalinina St. 13, Russia

Nadezda Sergeevna Elizarova
Moscow Polytechnic University, 107023, Bolshaya Senenovskaya Street 38, Moscow, Russia

Egor Aleksandrovich Borisov
Department of Expertise, Management and Real Estate Cadastre North-Eastern Federal University, Belinsky Street 58, 677000, Russia

Ilya Valerievich Sorgutov
Federal State Budgetary Educational Institution of Higher Education «Perm State Agro-Technological University named after Academician D.N. Pryanishnikov» Street Petropavlovskaya, 23, 614990, Perm, Perm Territory, Russia

***Abstract*---**The article considers the prospects for the development of the education economy in modern market conditions. The main reason for considering this topic is that in the modern period, this science is immature, since it does not demonstrate the ability to offer effective, efficient, socially feasible and economically viable solutions to educational problems. Accordingly, the main direction of the development of this science should be considered the development of scientific fundamental and technological approaches to solving existing problems in education. One of the tools in this regard should be called educational projects that contribute to the dynamic development of both pedagogy in general and this science in

***Corresponding author**: Sabodash, O. A.; Email: a1ewhite@yandex.ru*
Manuscript submitted: 27 April 2021, Manuscript revised: 9 July 2021, Accepted for publication: 18 August 2021

particular. To be recognized as an integrated field of research, the economics of education should assign to pedagogy the role of helping scientists to create formative solutions to the criticisms identified in the course of economic research. Indeed, within the framework of the role that pedagogy can assume, planning in the field of education, the formation of various aspects of personality (economic, financial, social and human) can be developed. Without this, possible formative solutions will not allow to build a democratic society in which well-being means respect for others, solidarity, tolerance, social cohesion, social integration and interaction. These qualities are not spontaneous, but they are the result of deliberate actions and education, just as economic growth is not spontaneous.

***Keywords*---**economics of education, pedagogy, personnel training, state expenditures on education.

Introduction

The formation of the education economy occurred because of the unification of economic and educational research, it is still in a state of scientific immaturity, because it is still too closely connected with the traditional approach based on the theory of human capital and the economic analysis of the results of educational activities (Alvino, 2000). Indeed, the benefits of education for the individual and for society are still considered using a typically economic approach. For example, research interests ranged from studies of the benefits of education for individuals and societies, the cost of education compared to levels of public spending, to the correlation between the level of education in a country and the level of its economic and social development, assessing the quality of education systems, studying the level of literacy of the population in terms of education, accessibility of school education, analysis of youth unemployment, etc. (Barrett, 2001). Such studies allowed scientists to determine the quality of the education system in the country and to recognize the importance of economic assessment of the activities of educational organizations and further education, and allowed them to identify cause-and-effect relationships between education in the country and its development (Prodanova, 2020).

However, such studies are not comprehensive. Indeed, based on the information about what knowledge is available today, it becomes clear that scientists in the field of educational economics have not been able to offer solutions to the problems raised by research (Becker, 1993). No effective solutions were proposed that would be effective, socially acceptable and economically viable. Most of the researchers agreed that the economics of education can be attributed to the theoretical foundations of this field of research, and representatives of this science should have an exclusively economic education (Reshetnikov et al., 2020; Lavecchia et al., 2016).

Materials and Methods

To write this work, an analysis of the literature array within the framework of the research topic was carried out, and comparative and analytical methods were used.

Results

At the present stage, it becomes clear that the economics of education cannot be considered exclusively from a scientific point of view or from the point of view of the science of education. Indeed, pedagogy and economics should occupy equivalent positions in research, because only then many aspects of education, from economic and financial to social and human aspects can be analyzed in various contexts, from the educational environment of the preschool educational institution to the organization of the educational process in graduate school, that is, throughout the entire educational path of a person (Amirov, 2020; Koch et al., 2015).

The economics of education was formed much later than other sectoral economies (the economics of industry, agriculture, transport, etc.). Unlike other sciences that "study education issues (pedagogy, psychology, philosophy, sociology, etc.), the economics of education considers it as a branch of the economy that has suprasectoral significance (Sokorutova et al., 2021; Psacharopoulos, 1996). Due to its unique specifics, the economics of education is attributed to special applied sciences, such as statistics, accounting, labor economics and others that study intersectoral economic problems. The economics of education can be defined as an applied science that studies the relations associated with the production, distribution, exchange and consumption of goods created in the industry – educational services; identifying and analyzing the features of the action of economic laws and categories in education, the essence of the processes and phenomena occurring in it; exploring and revealing their driving productive forces that affect economic development, welfare of societies and individuals. The figure shows the levels of economic relations and processes that arise in the field of education (Hill & Jones, 2017; Stanley & French, 2003). In recent years, scientific and methodological understanding of the economics of education has been increasingly carried out, reflecting its role and significance in the system of scientific knowledge. The main economic function of the education sector is the reproduction of human capital, highly qualified personnel for all sectors of the economy. Educational activities are aimed not only at the transfer, dissemination and assimilation of formed knowledge, but also at the generation of new knowledge (Bonawitz et al., 2011; Oxman, 2008; Marin & Halpern, 2011). Education as such "is purchased as a service, but first you need to invest capital in it, and the capital is significant. The state and society that ignore this economic determinant risk remaining on the sidelines of progress, on the periphery of the globalization process. Education is becoming a strategic resource for the development and competitiveness of the nation.

Based on the available research, it can be concluded that the object of studying the economics of education is many aspects of the interdependent relations between education and the economy. This approach characterizes its exclusively

economic orientation. For example studies on the individual and public benefits of education and the economic aspects that link educational institutions in the global economy; analysis of the impact of the economic system on the acquisition of knowledge of people who combine work and education in the context of educational activities carried out by non-profit organizations; research on the demand for education and the availability of educational resources have been conducted (Cedefop, 1998). This approach, which considers primarily the "material" benefits derived from education and vocational training, originates in the classical version of the theory of human capital, which was formulated in the 1950s by classical economists of the Chicago School, in particular T. W. Schultz, G. Becker and J. Mincer (Ciccone & Peri, 2002).

Even the educational interests of the international scientific community and the interests of international political institutions that fall under the category of educational economics are based on typical economic principles (Fedorchenko et al., 2021). They are dominated by empirical verification of theoretical models that seek to establish a causal relationship between education and wages at the individual level and between education and development at the social level (Shepel, 2012). Indeed, the main general assumption is that education is an economic investment, since it increases the productivity of an individual in addition to the productivity of his employer and society as a whole. Taking into account this and the theory of human capital, much can be learned from research at the micro, macro and meso levels.

First, in the field of research related to microeconomics, the economics of education, the emphasis is placed on the advantages of education for the individual in terms of a person's future salary. Therefore, the most frequently raised questions from both theoretical and empirical points of view relate to the measurement of economic benefits in terms of wages and education. Even if in recent years, research has begun aimed at studying the impact on the human and social aspects of the individual. In particular, current research in the field of education economics has focused on measuring the impact of a person's education on their future salary. The entire working life of individuals, not just their level of education and professional training, as well as their available employment opportunities and their status in the world of work were considered in it (Lian, 2021). Such a study was conducted by empirical analysis of data on long-term unemployment, as well as by comparing the individual costs of education and its benefits for success in the labor market and the social benefits that education can bring.

Secondly, studies on the impact of education on the economy at the macro level focused on the business world. In particular, it examined the relationship between human resources and the organization and the formation of human capital. The authors of these studies focused on the assumption that investments in the formation of human capital in the company are strategic, since the resulting productivity of the employee will be greater than the necessary investments to provide the necessary training (Linares et al., 2016; Berlim et al., 2007).

The science of business management is based on the idea that the education of an employee is understood as the preparation of human capital, which benefits the business itself. This is due to the fact that the employee's labor productivity in the organization is as high as the specialized training that he received, both directly in the company and outside it. Therefore, in the business world, in addition to investments in physical capital, the professional training of an employee is no less important and is considered as a factor of investment in the company's production potential. Its importance is so highly appreciated today that the methods of evaluating human capital should now be budgeted in the company's finances. Indeed, the economic value of a company is determined in terms of the ability of its human resources to generate income for the company and is on a par with the physical capital of the company, its investments and its material resources (Debesse & Mialaret,1971).

Third, the field of research was focused on the macroeconomic nature of the benefits of education. Indeed, there is a well-founded interest on the part of scientists and academics, as well as leading institutions and organizations around the world such as the Organization for Economic Cooperation and Development and the ILO in the field of the impact of education and training on the definition of GDP and its economic growth. However, even in this case, the fundamental scientific assumption of this school follows from the classical theory of human capital, that is, from the fact that a high level of education and professional training leads to greater economic development of society as a whole. Therefore, the subject area that is most discussed from the point of view of theory and empirical research is the impact of human capital on the economic growth and overall development of a country, as well as negative consequences in terms of social cohesion and economic differences in addition to differences in the quality of education in any country. In addition, this third area of research also covers studies of the relationship between the quality of education and vocational training systems, economic investment in education, economic growth and development of the country. Therefore, it is obvious that research in the field of education economics relies on economic analysis and pays little attention to educational policy and proposed solutions to the problems of educational systems and education issues in general (Delamotte, 1998).

Discussion

The fields of research that study the economics of education state that school education, vocational training and adult education are the most productive investments for the future of an individual, for the success of a company in a market economy and for the growth and development of an entire country. Although this is fundamental, the research conducted to date in the field of education economics leads to the conclusion that all that has been done in the field of personality research, business systems, economic growth and social development of individual countries is not enough for the education economy to be assigned a significant role among the educational sciences. In fact, there is no contribution of pedagogy to the economics of education (Hanson et al., 2004).

However, the analysis of this issue would not be complete if it did not emphasize the fact that in recent years, signs of expansion of this field of research have

begun to go beyond the traditional economic framework. This transformation was caused by the growing interest in the benefits of education for individuals and society, and not only from an economic point of view. However, despite the fact that new research stems from the recognition of the need to expand the scope of research on individuals and their views, they are still, as a rule, they focus on the need to quantify new results. At the same time, it cannot be denied that the study of cause-and-effect relationships between a high level of education, improved health and physical and social well-being, the adoption of self-protective behavior and lifestyle, a decrease in crime and an increase in the level of social cohesion has brought research in the field of education economics closer to the science of education. However, although such studies offer a deeper vision of the individual and society and the benefits that education, health, justice and social security in general provide (Mialaret, 1976).

Therefore, despite the reduced focus on the economy, research results continue to focus mainly on economic outcomes, including the effectiveness of training systems and the short-and long-term economic benefits of specific policies. However, this scientific expansion cannot be considered satisfactory for the educational sciences, of which this field of research has become a part, since it is time to conduct research beyond the simple analysis of the benefits of education. It is necessary not only to contextualize social, cultural and ethical aspects in addition to cognitive, communicative, relational and sociological aspects, but also to take into account such factors when proposing areas of intervention that can affect the processes of change in educational systems, if they should be considered ineffective for obtaining benefits for individuals, companies and society as a whole.

This operation of expansion and epistemological renewal of the education economy cannot take place simply as the individualization of new cognitive approaches that differ from those presented here, but must be supplemented by a new research goal, i.e. the creation, planning or revision of educational theoretical models and educational systems. This would allow new research to investigate and interpret education in accordance with the principles of economics from the point of view of pedagogy, while at the same time contributing to the formulation of operational solutions to various educational problems that have arisen in society.

In addition, such proposals could become a useful tool for enabling political institutions to make decisions on changing and reforming the general education system or part of it in order to improve the standard of living of individuals and the development of society, thereby contributing to increased well-being. Therefore, it can be argued that the economics of education will never become an effective social science if it is not based on the pedagogical aspects of education planning. To illustrate this point, we can analyze the unemployment rates among young people. From numerous economic studies of this phenomenon, it turned out that one of the main reasons is the global economic crisis, but no less important is the relatively inefficient education of young people of current generations (Morisi, 1989).

The defining the ways of solving this problem is as follows: the implementation of the process of development of the education economy in the context of pedagogy. In particular, what needs to be done is to adapt educational and vocational guidance systems and employment schemes in order not only to bring young people closer to training or adults to retraining in the context of the needs of the labor market, but also to bridge the gap between education and employment through formal education programs at school and university and through non-formal education, such as work experience.

Currently, mentoring is primarily a tool for on-the-job training, but even taking into account the fact that it is provided for by the relevant regulatory acts, its effectiveness is insufficient. Mentoring training programs will be useful only if they represent a potential investment in human capital. Otherwise, such programs are simply expenses that the company cannot afford. Therefore, to improve the effectiveness of the education system at the mentoring level, it is necessary to develop intra-industry training programs; this gives the employer the opportunity to invest in potential human resources that can be trained in accordance with their requirements. Such schemes should be well planned, monitored and evaluated by education professionals and managed by mentors from companies that are qualified to perform such roles. Thus, these programs will lose their formality and will be able to benefit the organization.

Experience shows that the greatest economic well-being is achieved by countries with effective strategies for the development of education, which plays a key role in the reproduction and development of human capital, in solving strategic tasks of socio-economic modernization of the country. The strategic goal of the state policy in the field of education is to increase the availability of high-quality education of all types and levels that meets the requirements of innovative economic development, the needs of society as a whole and every citizen. In the context of globalization and the formation of "knowledge-based economies, it is necessary to improve and increase the authority of the national education system. In recent years, attempts to transit to an innovative economy, the formation of a knowledge economy, an economy based on the creation and generation of innovations, the latest achievements of science and technology, the development of high-tech industries have been made in Russia. The economy, being innovative, is also intellectual, since innovation is the final result of a person's mental activity, his creative process, discoveries, inventions and rationalization".

Thus, the goal of the field of education economics should be to provide knowledge that solves numerous social and educational issues inherent in society, while at the same time exploring the relationship between economics and pedagogy. To achieve this goal, it is necessary to conduct work on the audit and systematization of currently existing relations at the international level and make a new contribution to solving educational and economic problems. To be recognized as an integrated field of research, the economics of education should assign to pedagogy the role of helping scientists to create formative solutions to the criticisms identified in the course of economic research. Indeed, within the framework of the role that pedagogy can assume, planning in the field of education, the formation of various aspects of personality (economic, financial, social and human) can be developed. Without this, possible formative solutions

will not allow us to build a democratic society in which well-being means respect for others, solidarity, tolerance, social cohesion, social integration and interaction. These qualities are not spontaneous, but are the result of deliberate actions and education, just as economic growth is not spontaneous. What is missing is a strong alliance between identifying problems in the economic and social spheres of the system and formulating potential solutions. Therefore, the economics of education should be more clearly defined, taking into account its pedagogical component.

Conclusion

The study of both the benefits and individual and social costs of education and vocational training, in addition to the economic and human aspects that link educational institutions with the global and social economy, will allow scientists to offer effective and socially feasible educational solutions within the framework of the development of the education economy.

References

Alvino, F. (2000), Skills and evaluation of human capital in Business Administration. Torino: Giappichelli.

Amirov R. A. (2020) Education in economics and the economics of education. EVR. *4*(66).

Barrett, A. (2001). Economic Performance of Education and Training. *Training and Learning for Competence*, 243-246.

Becker, G. S. (1993). Investment in Human Capital: A Theoretical with Special Reference to Education.

Berlim, M. T., Perizzolo, J., Lejderman, F., Fleck, M. P., & Joiner, T. E. (2007). Does a brief training on suicide prevention among general hospital personnel impact their baseline attitudes towards suicidal behavior?. *Journal of affective disorders*, *100*(1-3), 233-239. https://doi.org/10.1016/j.jad.2006.09.035

Bonawitz, E., Shafto, P., Gweon, H., Goodman, N. D., Spelke, E., & Schulz, L. (2011). The double-edged sword of pedagogy: Instruction limits spontaneous exploration and discovery. *Cognition*, *120*(3), 322-330. https://doi.org/10.1016/j.cognition.2010.10.001

Cedefop. (1998). *Vocational education and training: the european research field: background report, 1998*.

Ciccone, A., & Peri, G. (2000). Human capital and externalities in cities. *Univ. Pompeu Fabra, Economics Working Paper*, (494).

Debesse, M., & Mialaret, G. (1971), Treatise on Pedagogical Sciences, vol. 1, it. tr. Rome: Armando.

Delamotte, E. (1998). An introduction to economic thinking in education. Paris: Presses Universitates de France.

Fedorchenko, V. K., Kutuev, P. V., Fedorchenko, N. V., & Vasilets, O. I. (2021). Tourism and education in formation of the human capital agency. *Linguistics and Culture Review*, *5*(S2), 246-258.

Hanson, B., Johanson, U., & Leitner, K.H. (2004). The Impact of Human Capital and Human Capital Investment on Company Performance. Evidence from Literature and European Survey Result. Descy, P. Tessaring, M. (eds), Impact of Education and Training. Third Report on Vocational Training Research in

Europe: Background Report. Luxemburg: Office for Official Publications of the European Communities.

Hill, A. J., & Jones, D. B. (2017). Does partisan affiliation impact the distribution of spending? Evidence from state governments' expenditures on education. *Journal of Economic Behavior & Organization*, *143*, 58-77. https://doi.org/10.1016/j.jebo.2017.09.008

Koch, A., Nafziger, J., & Nielsen, H. S. (2015). Behavioral economics of education. *Journal of Economic Behavior & Organization*, *115*, 3-17. https://doi.org/10.1016/j.jebo.2014.09.005

Lavecchia, A. M., Liu, H., & Oreopoulos, P. (2016). Behavioral economics of education: Progress and possibilities. In *Handbook of the Economics of Education* (Vol. 5, pp. 1-74). Elsevier. https://doi.org/10.1016/B978-0-444-63459-7.00001-4

Lian, X. (2021). The development of the teaching concept of musical stage art. *Linguistics and Culture Review*, *5*(S2), 435-453.

Linares, R., Choi-Nurvitadhi, J., Cooper, S., Ham, Y., Ishmael, J. E., & Zweber, A. (2016). Personnel training and patient education in medical marijuana dispensaries in Oregon. *Journal of the American Pharmacists Association*, *56*(3), 270-273. https://doi.org/10.1016/j.japh.2015.12.015

Marin, L. M., & Halpern, D. F. (2011). Pedagogy for developing critical thinking in adolescents: Explicit instruction produces greatest gains. *Thinking skills and creativity*, *6*(1), 1-13. https://doi.org/10.1016/j.tsc.2010.08.002

Mialaret, G. (1976). The sciences of education. Paris: Presses Universitateires de France.

Morisi, A. (1989). Economics of Education, Laeng M., Pedagogical Encyclopedia. Vol. III. Brescia: the school.

Oxman, R. (2008). Digital architecture as a challenge for design pedagogy: theory, knowledge, models and medium. *Design studies*, *29*(2), 99-120. https://doi.org/10.1016/j.destud.2007.12.003

Prodanova, N.A., Zatsarinnaya, E.I., Plaskova, N.S., ...Chumakova, N.V., Kalyakina, I.M. (2020). Actual issues of increasing the efficiency of state and municipal procurement of medicines. *International Journal of Pharmaceutical Research*, *12*(3), 2134–2137

Psacharopoulos, G. (1996). Economics of education: A research agenda. *Economics of education review*, *15*(4), 339-344. https://doi.org/10.1016/S0272-7757(96)00025-8

Reshetnikov, A.V., Romanov, S.V., Steger, F., ...Golikova, N.S., Prodanova, N.A. (2020). The relation of students as a social group to the problems of posthumous organ donation of the person (On the example of students of the usa, germany and russia). *International Journal of Pharmaceutical Research*, *12*(3), 1894–1897

Shepel, V. M. (2012) Economics of education. Educational technologies (Moscow). No. 2.

Sokorutova, L., Prodanova, N., Ponomareva, I., & Volodin, O. (2021). Determination of criteria for assessing the quality of training future specialists for higher education. *International Journal of Educational Management*.

Stanley, R. E., & French, P. E. (2003). Can students truly benefit from state lotteries: a look at lottery expenditures towards education in the American states. *The Social Science Journal*, *40*(2), 327-333. https://doi.org/10.1016/S0362-3319(03)00013-2