

Copyright © 2019 by Academic Publishing House Researcher s.r.o.



Published in the Slovak Republic
Media Education (Mediaobrazovanie)
Has been issued since 2005
ISSN 1994-4160
E-ISSN 1994-4195
2019, 59(2): 185-193

DOI: 10.13187/me.2019.2.185
www.ejournal53.com



The Factor Model of the Media Educational Concept of Developing Lifelong Self-learning Individual Readiness

S.V. Akmanova ^a, L.V. Kurzaeva ^{a, *}, N.A. Kopylova ^b

^a Nosov Magnitogorsk State Technical University, Russian Federation

^b Ryazan State Radio Engineering University, Russian Federation

Abstract

The modern information age declares to each individual the need for continuous updating and perfection of knowledge in the field of media education, which is integrated into various spheres of educational activity and human life. The success of developing new things largely depends on self-learning individual readiness in the changing media environment. Therefore, self-learning individual preparation taking into account media realities should be given great attention during training students in higher educational establishments, forming their special competences that allow them to constantly update their level of knowledge and skills throughout their lives, both in the professional sphere and in their ordinary life. The acquired competences of self-learning will contribute to developing self-learning individual readiness, will enable individuals to master new professions and feel confident in a rapidly changing information world. The formation and development of self-learning individual readiness depends on many factors, both external to an individual and internal. The article presents and proves the factor model of our developed media educational concept of developing self-learning individual readiness, which establishes the basic mechanism of interrelation of an individual and his/her development environment, highlighting the groups of factors and their role in ensuring the conditions for developing lifelong self-learning individual readiness. The noted model will allow productively carry out the pedagogical design of the development process of self-learning individual readiness, both in the process of formal education and a joint of formal and non-formal forms of education. The realization of this model will help an individual, after the graduation from the university, improve his self-learning readiness, taking into account constantly changing media conditions in the course of non-formal and informal education.

Keywords: self-learning individual readiness, self-learning skills, a media educational concept, media competence, media environment, the factors of developing self-learning readiness, a factor model, formal education, non-formal education.

1. Introduction

According to C. Worsnop, for modern people media is an environment (Worsnop, 1994). Therefore, a person's preparation for life in a rapidly changing world outside media is simply impossible today, which means that any individual self-training or, moreover, individual self-learning is impossible without media training, involving individual media education.

* Corresponding author

E-mail addresses: lkurzaeva@mail.ru (L.V. Kurzaeva)

Media education as a “process of individual development with the help of and on the material of mass media (media)” has several directions (Fedorov, 2012: 480). One of them provides for independent and continuous media education, which can be carried out throughout the whole life. For successful realization of such media education, it is still necessary to form and develop individual readiness for self-learning at the stage of a university preparation in a constantly changing media environment.

The pedagogical support of the process of developing individual self-learning readiness at a higher educational establishment is external in relation to a personality, but its success largely depends on the personality itself. Therefore, for its design, it is important to represent external and internal factors affecting the successful implementation of this process, the nature and the role of their interaction, which leads to the construction of a factor model for developing lifelong self-learning individual readiness. On the basis of this model, it is possible to establish the main mechanism of individual interrelation and its development environment, as well as to find ways of pedagogical influence on the process of developing individual readiness for self-learning taking into account all its factors.

2. Materials and methods

Research materials: scientific achievements in the field of self-learning and self-education and university students' social activity, the development of their readiness for self-learning, as well as in the field of Russian and world media education.

The object of research is students' professional training in higher educational establishments and individual media educational training in the process of self-learning or in the framework of non-formal education.

The main research methods were: analysis, comparison, synthesis, generalization, specification, abstraction and modeling.

3. Discussion

The search for ways to solve the effective formation of developing lifelong self-learning individual readiness in the context of the modern paces of technology development and digitalization of all spheres of society activities is conducted in different directions. In the discussion format and experimental studies, the factors that have the strongest influence on the formation and development of the discussed competence in the framework of formal and non-formal education are studied.

Formal education includes students' class work, work experience internship and extracurricular independent work (Kharlanova, 2015: 83), while it can have individual and group forms. Informal forms of education are focused on the students' active involvement in educational activities based on their experience, real action, communication and interaction. The examples of such forms may be professional e-communities, webinars, round tables, eMOOC, cMOOC, taskMOOC, etc. The importance of such education in a digital society is steadily increasing (Littlejohn et al., 2016). Non-formal education can be described as an iceberg: mostly invisible on the surface and huge in its deep informal aspects (Beddie, Halliday-Wynes, 2010).

Formal and non-formal types of educational activities have complementary properties: consistency, universal coverage, the ability to act as a tool for mastering basic competencies, set a medium-term and long-term professional development strategy – formal education; variability, voluntariness, the ability to quickly solve short-term tasks, adjust professional training to the changing conditions of a labor market – non-formal education (Weinstein et al., 2015). Therefore, their integration will allow to expand the educational environment for students, will contribute to the improvement of educational standards, educational content, since “formal education can be viewed as a system of state standards, and non-formal education – as a system of improving educational standards and bringing them into the line with a new level of knowledge and practice” (Gorsky et al., 2012: 37). For the harmonious integration of both educational forms in order to develop self-learning individual readiness, it is important that the realization of non-formal education should not be based only on today's dominant evidence-based approach. The lack of reasons for finding and extracting knowledge is a serious disadvantage and such an integration is unlikely to be effective (Archibald, 2015).

At the same time, the pedagogical community is responsible for developing in students the ability to think through their own trajectory of professional and personal development (Mertens, 2010).

Thus, we consider the definition of “integration” from two positions:

- 1) as a state “characterized by orderliness, consistency, stability of interrelations between elements” (Panina et al., 2007: 11-12) and
- 2) as a “mechanism for coordinating positions in the period of transformations” (Novozhilov, 2011: 72).

Therefore, the integration of formal and non-formal education in the process of developing self-learning student individual readiness will ensure the functioning of the media educational concept as an integral non-contradictory system that transforms a student’s current level of readiness for self-learning into a higher level of readiness and guarantees success in achieving their goals.

We have developed a media educational concept of developing lifelong self-learning individual readiness, which implies the formation and development of this readiness at two educational levels: a bachelor degree course and master degree course in the process of integrating formal and non-formal forms of university education. This concept provides for the transition from the level of formal education to the level of integrating formal and non-formal education, and subsequently non-formal and in-formal education in the formation and development of self-learning individual readiness. At the same time, in the course of these types of integration, the relationship between the integrated elements is transformed according to the scheme: connection – interrelation – interaction – interpenetration – synthesis. This will allow a student, after graduating from the university, to continue continuous self-learning in professional, intellectual, spiritual, and other areas of life, based on the existing media reality and his preparedness for self-learning.

The goal of the developed concept is “to determine the basis for the pedagogical design of developing lifelong self-learning individual readiness” (Akmanova et al., 2018: 38). It provides the following tasks:

1. *The expansion of university information and educational environment using the resources of external educational media environment*, which implies the creation of a system of adaptive management of the information support for the educational process and the rational introduction of open educational resources, mass open online courses, etc.

2. *The development of the academic teaching staff in the field of educational process pedagogical design at the intersection of formal and non-formal education forms*, which will improve the quality control of the existing media resources suitability in the external environment relative to a university, develop their own educational media resources, realize the educational process, actively using media environment resources.

3. *The actualization of students’ information and cognitive needs in the framework of project-productive learning activities* that will ensure the development of self-learning skills and the continuity of individual inclusion in media educational processes at all stages of their participation in project-productive learning activities (Akmanova et al., 2018: 43).

The developed concept satisfies the social order of the society for forming a bachelor (master) degree graduate with the readiness for lifelong self-learning. At the same time, self-learning individual readiness in the context of media readiness is understood as “having developed skills of self-learning, namely automated actions for self-obtaining, mastering and creative processing of knowledge that has positively replicable results” (Akmanova et al., 2018: 35).

To realize this social order of the society, it is necessary to observe the following complex of the pedagogical conditions in university educational environment:

- 1) the actualization of the positive students’ self-concept;
- 2) the expansion and strengthening of interdisciplinary relations in the course of students’ project activities;
- 3) students’ active involvement into research activities;
- 4) stimulation of students’ cognitive needs in the development (discovery) of new knowledge or work method;
- 5) active and continuous students’ inclusion in media educational processes.

The complex of these conditions will allow for the gradual and systematic updating of the self-learning individual readiness content at the interface of a rational combination of various forms of formal and non-formal education.

During the realization of this concept, there is a change (increase) in the level of self-learning individual readiness from low to lower than average, then to medium and, finally, to a high level of this readiness development. At the same time, a student with a *low level* of developing self-learning readiness does not fully know the algorithms corresponding to the skills of self-learning; poorly orients in media environment, often makes mistakes and works at low speed; is not capable of performing research and creative tasks. A student *with a level below the average* knows the algorithms corresponding to the skills of self-learning; orients in media environment, but he does not know how to carry out search and research and creative tasks, i.e. cannot transfer skills to non-standard situations. A student *with an average level* of readiness development quickly and accurately applies self-learning skills in standard situations; he has formed some media educational competencies, has a high level of aspiration to plan and solve search and research and creative tasks, however, in some cases he makes mistakes while carrying out such tasks. A student of *high level* of self-learning readiness confidently possesses the self-learning skills, both in standard and non-standard situations; possesses the well-formed media educational competencies; being able to obtain knowledge independently, their creative re-working (Akmanova et al., 2018: 40-42).

But what are the factors affecting the effectiveness of these conditions realization? What is the hierarchy and interrelations of these factors in the modern world that are rich with media content and media for communications?

Today, the lines of quasi-professional and professional communications through media are already quite fully described. In this respect, the work on the description of the self-generating paradigm of vocational education, which accumulates the assessment of social media usage by ICT experts from Australia, Europe and the United States of America (Prestridge, 2019), is interesting, but it does not fully answer to the question of the structure and influence importance of media environment certain factors on forming lifelong self-learning individual readiness. The creation of such communications should be subordinated to the goals of self-regulated learning (Weinstein et al., 2015).

Education should be based on the principles of personal activity, goal-setting, individualization, problem-solving, reflection, optimization, taking into account system, environmental and competence-based approaches, based on diagnostic methods, training and self-upbringing. The realization of these methods can be carried out on the basis of the methods of emotionally-intellectual stimulation, advanced trust, elitization, algorithmization, as well as reflexive, training and dialogue. As a means of learning, we offer a variety of projects, open educational resources, educational media resources, cases, exercises, puzzles, tasks, games.

At the same time, we need to understand the perspectives for further development of the education system, based on media environment development. For example, the digitalization of education and the creation of virtual learning systems actualize research in the field of virtual worlds' media characteristics as factors affecting their quality, safety and efficiency. These characteristics in the work (Choi, Baek, 2011) include "interactivity", "accuracy of presentation", "immediacy of communication", "sequence" and "constancy" after the research factor analysis.

Undoubted interest as an internal factor is such a phenomenon as digital supervisory responsibility. Digital supervisory responsibility is recognized as a new field that requires its own skills and experience. The modern professionalization of digital supervisory responsibility requires a deeper analysis of what it means to do digital supervisory responsibility. It needs a clear presentation of who the digital facilitators are, what they do and how they describe their skills and how these skills fit their work. Having synthesized the definitions of digital supervisory responsibility and the profiles of digital facilitators, the research makes a distinction between professionalism from top to bottom and from bottom to top and identifies the similarities and differences between them. While the top-down approach based on the agenda ensures consistency and digital learning consistency as a profession, the bottom-up approach focused on practitioners prospers on the basis of inclusion and diversity (Kouper, 2016). While there is an agreement that participation in online asynchronous discussions may improve students' learning and self-learning, it was found that there is a need to study the impact of participation in online discussions on students' work (Palmer et al., 2008).

For the successful realization of the developed media educational concept, it is necessary to have a whole picture of all external and internal factors of the development process of self-learning individual readiness, as well as how they interact and influence the result of this process. Thus, it is necessary to create a factor model of developing lifelong self-learning individual readiness.

The factor model should reflect the complex of the most significant and continuously operating circumstances leading to changes in the level of developing self-learning individual readiness, therefore, based on such a model, it is possible to determine the pedagogical means ensuring these changes.

The presence of the factor model will allow teachers to competently and effectively plan and realize pedagogical influence on the process in question.

4. Results

The development of a factor model of developing lifelong self-learning individual readiness supposed the solution of the following tasks:

- 1) the identification and systematization of the factors in developing self-learning individual readiness;
- 2) the clarification of the factors' role at different stages of developing self-learning individual readiness;
- 3) the study of the factors' influence results on the process of developing self-learning individual readiness;
- 4) the determination of pedagogical influence methods on the process under consideration, taking into account the established factors.

To solve these problems, a subject-environmental approach was used, taking into account the interaction of the subject and the environment. In developing this model, we used the media educational concept of developing lifelong self-learning individual readiness described in section "Discussion", taking into account the dynamics of developing self-learning individual readiness, as well as an algorithm for integrating formal and non-formal education, and subsequently non-formal and informal education.

Based on the analysis of the various researches in the field of individual self-learning and self-education, media education and its influence on the society development, we distinguished three factors' groups for developing self-learning individual readiness:

- 1) the social and media environment factors;
- 2) the factors of a higher education educational organization;
- 3) the intrapersonal factors.

Social and media environment factors are external both in relation to the educational organization of higher education, and in relation to the subject of developing self-learning readiness. These include: the social order of society for the formation of a bachelor's (master's) degree course graduate, who has lifelong self-learning readiness; the priority direction of the educational policy of the leading world powers, including Russia, approved by the world organization called UNESCO, is "individual education through life"; accelerating penetration of media technologies into various spheres of human life and activity and, as a result, rapid and continuous knowledge growth in all branches of science, technology and production.

The factors of a higher education educational organization include: university regulatory documents that determine the demand for training specialists with developed competences in the professional field, experience in acquiring new knowledge and skills in rapidly changing professional environment, and the ability to continuously update knowledge throughout life; the position of teachers and their personal example; the advanced methods and technologies of training students, aimed at continuous individual development, the formation and development of skills to work with various media and information technologies; the introduction to the content of many specialties and areas education of the following disciplines: "Media Education", "Media Culture", "Theory of Media and Media Education", "Methods and technology of media education in schools and universities" and so on, aimed to the ability to acquire knowledge through media technologies that are quickly updated and require continuous individual self-learning.

The intrapersonal factors in developing self-learning individual readiness include: the system of personal values, motives and priorities; the existence of a positive individual self-concept; an insufficient level of developing self-learning individual readiness; mastered individual

cultural and professional competences; subjective personal experience in developing media and information environment.

These mentioned factors' groups are interrelated. Thus, social and media environment factors have a direct impact on the factors of a higher education educational organization, namely: they set the setting for updating the requirements for preparing university students, existing teaching technologies, affect the change in the current educational paradigm and the model of professional and personal behavior of teachers. At the same time, these mentioned external factors have an impact on the intrapersonal factors of developing self-learning individual readiness, namely: they contribute to the adjustment of the motivational-volitional sphere of individual development, affect the formation of individual priority system; contribute to the development of the subjective individual experience in the development of media environment. The factors of a higher education educational organization reinforce the influence of these external factors on the intrapersonal factors, in addition, they affect the motivational and value sphere of personal development, stimulate the actualization of a positive individual self-concept, have a direct impact on increasing the level of developing self-learning individual readiness.

At the same time, factors of a higher education educational organization can also influence the social and media environment factors, if an educational organization is able to develop its own educational media resources that correspond to the trends of the time or even to some degree ahead of time. In this case, their influence on the intrapersonal factors will be more significant in comparison with the social and media environment factors.

Considering the dynamics of developing self-learning individual readiness, we distinguish three stages in the development of this readiness: *preparatory*, *operational-activity*, and *professional-activity*.

At the *preparatory stage*, a learner forms the basis of knowledge on the theory of self-learning and its implementation in any intellectual field of activity, this stage passes through three phases:

- a) *the phase of knowledge accumulation* about the process of self-learning and readiness for it;
- b) *the phase of motivational-volitional adjustment* to the process of self-learning, which should be continuously carried out throughout life;
- c) *the phase of media educational preparation*, without which it is impossible to learn new things in a rapidly changing information world.

An *operational-activity stage* involves the formation of skills for self-learning based on existing media technologies and goes through three phases:

- a) *the goal-setting phase*, during which students are set a goal to form self-learning skills and transform them into self-learning skills;
- b) *the phase of self-learning skills' formation* as the basis of lifelong self-learning individual readiness;
- c) *the phase of media readiness* in order to form personal media competence.

Professional-activity stage involves the development and realization of self-learning individual readiness in a quasi-professional and educational-professional activity taking into account real media conditions and includes three phases:

- a) *the phase of adaptation* of a student's personality to the intended professional activity;
- b) *the phase of developing self-learning skills* through the integration of formal and non-formal education;
- c) *the phase of realizing an individual student readiness* to self-learning in real media conditions.

Let us characterize the role of factors in developing self-learning individual readiness at different stages of developing this readiness.

At the *preparatory stage* of developing self-learning individual readiness, the leading role is played by the factors of a higher education educational organization. Enrolling at a university, a student gets to the environment, which involves a large amount of independent work, the mood for constant self-development, inclusion in educational-project or research activities, and therefore, the possession of information and media technologies. All this leads a learner to the need to think about self-learning, to study the features of this process, to think about its existence, realizing that it is impossible without media educational preparation. Thus, under the influence of the factors of a higher education educational organization, a student goes through the three phases of the

preparatory stage of developing self-learning individual readiness, during their realization the intrapersonal factors of developing self-learning individual readiness are used, increasing their influence.

At the *operational-activity stage* of developing self-learning individual readiness, intrapersonal factors are dominant, especially in the goal-setting phase, during which a person independently sets a goal – to form self-learning skills and transform them into self-learning skills. The influence of intrapersonal factors does not weaken at the phase of forming self-learning skills, since the success of this phase completely depends on the personality: their priorities, the motivational-volitional sphere, the actualization of a positive self-concept, the formed competencies. At the phase of media readiness, the influence of all the factors in developing self-learning individual readiness is manifested. The social and media environment factors increase their influence, as a person begins to understand what social needs he is facing, how complex and diverse the world of media needs to be mastered in order to be socially and professionally mobile. Whereby the factors higher education educational environment help this either through educational disciplines related to media, or through modern teaching methods and technologies, as well as the position of teachers and their personal example. The influence of intrapersonal factors is significant, since the success of the media readiness phase, during which the personal media competence is formed, depends largely on the integrity of the personality.

At the *professional-activity stage* of developing self-learning individual readiness, the pride of place goes to the social and media environment factors. At the phase of adaptation to future professional activity, a student masters the role of this activity subject, and hence the features of the relevant social environment. During the phase of developing self-learning skills, he submerges himself into quasi-professional activity, which recreates the conditions, content and dynamics of professional activity, reflecting its subject, social and psychological contexts (Kuzevanova, 2013). This is done through the integration of formal and non-formal types of education, which acts as a means of increasing the influence effectiveness of all factors on the developing self-learning individual readiness. Indeed, the social and media environment factors become more accessible and open, the factors of a higher education educational organization are added by a new content, methods and technologies that are in line with practice, intrapersonal factors increase their influence by increasing the role of a student's subjectivity in the application of nonformal types of educational activities. At the realization phase of self-learning individual readiness in real media conditions, the demonstration and development of the formed self-learning skills are carried out. And this happens during educational and professional activities that take place in a real professional environment within the socio-cultural university environment. Therefore, at this phase, the social and media environment factors become more relevant.

As you can see, all the groups of factors have a positive effect on the result of developing self-learning student's readiness, while working in a complex, some of them reinforce the influence of others, and depending on the stage of developing self-learning individual readiness, one dominant factor is replaced by another. Thus, these factors contribute to increasing the level of self-learning individual readiness from the stage to the stage.

According to the our developed media educational concept of developing lifelong self-learning individual readiness, the dynamics of the step-by-step development of this process can be repeated several times outside the university, for example, during advanced training, personal development of a new profession, as well as any intellectual personal improvement. At the same time, the factors of a higher education educational organization should be replaced, for example, by the professionally significant factors, and the integration of formal and non-formal education should be replaced by the integration of non-formal and informal education.

Thus, the factor model of developing self-learning individual readiness at the stage of university education is an organic and coordinated system of interrelated and complementary components (Fig. 1).

Based on the our developed media educational concept of developing self-learning individual readiness, it is possible to establish *the ways of pedagogical influence on the development process of this readiness* taking into account the stated factors:

- 1) expanding the information and educational environment of a higher educational establishment and attracting resources from an external educational media environment to the educational process will increase the influence of social and media factors that will directly affect

the factors of a higher education educational organization and the intrapersonal factors of developing self-learning individual readiness;

2) the development of the competence of higher-education teaching personnel in the field of educational process pedagogical design at the intersection of formal and non-formal education forms will increase the influence of factors of a higher education educational organization, since it will lead to the active use of advanced media resources and technologies in the educational process; will create conditions for developing their own educational media resources by teachers and students, will contribute to the development of media competence of the latter, and thus the formation and development of their self-learning readiness;

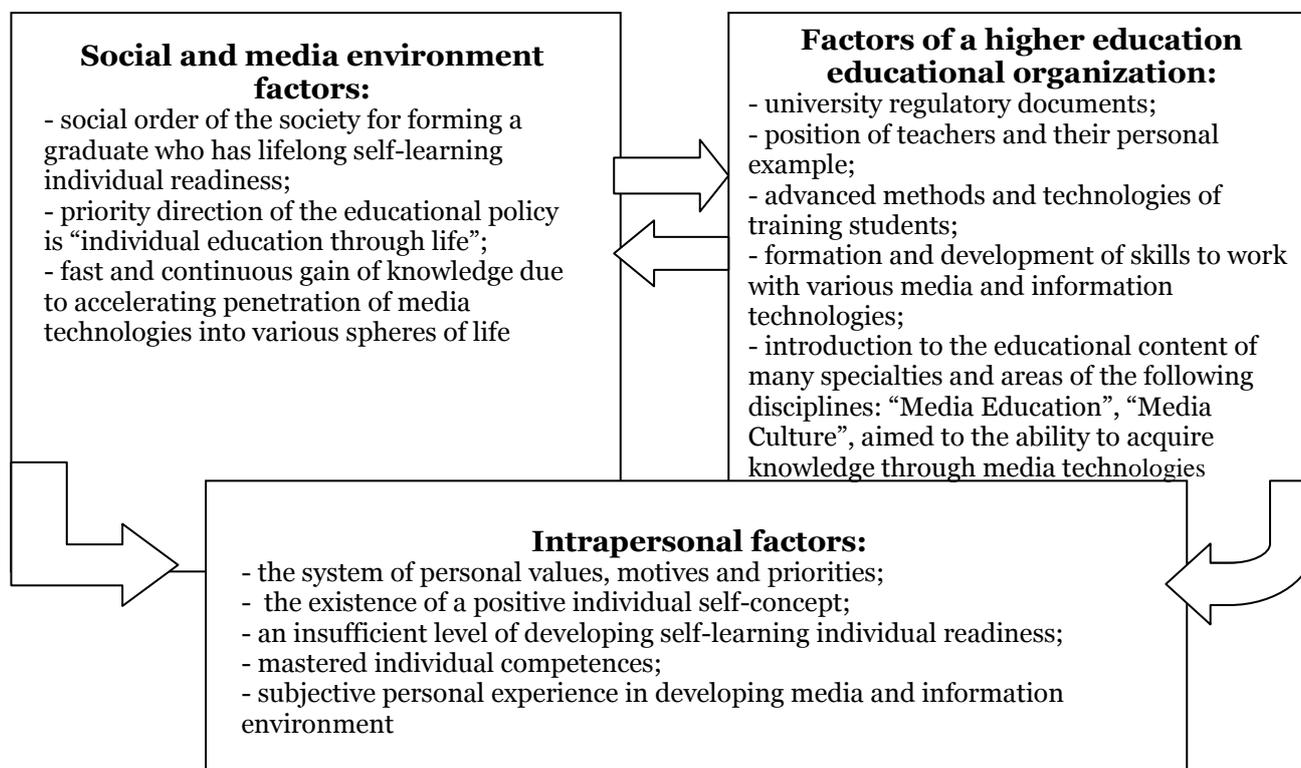


Fig. 1. The factor model of developing lifelong self-learning individual readiness (at the level of university education)

3) the educational process organization on the basis of a complex of pedagogical conditions, principles, methods, techniques and means set out in section "Discussion" will have a significant impact on the intrapersonal factors of developing self-learning individual readiness, actualizing the informational and cognitive students' ability in the framework of project-productive, and also research educational activities, best contributing to developing self-learning individual readiness.

At the end of the university, the self-learning individual readiness may be maintained as a part of the integration of non-formal and informal education, with the social and media environment factors as well as intrapersonal factors playing a significant role in the development of this readiness. Moreover, the role of the latter is decisive at any stage of a life path, since only a person who has a continuous need for self-development and a readiness for self-learning formed at a certain level, is able to achieve success in learning new things and develop this readiness to a higher level.

5. Conclusion

The article describes the essence of the media educational concept of developing lifelong self-learning individual readiness, the dynamics of the development process of this readiness at the university level is given. Taking into account the presented concept and the dynamic scheme of developing self-learning individual readiness, a factor model of developing lifelong self-learning individual readiness (at the level of university education) has been developed and proved.

The purpose of developing the factor model was to discover the mechanism of the relationship between an individual and his/her development environment, to find ways of pedagogical influence to this mechanism within the developed media educational concept. The noted model reveals the types and content of external and internal factors of developing self-learning individual readiness, demonstrates the interrelation and interaction of these factors. All this makes it possible to identify the dominant factors at each stage of developing self-learning individual readiness, to design the ways of pedagogical influence on the process of developing self-learning individual readiness at the level of university education, to identify the dominant factors of developing self-learning individual readiness in the post-university period.

References

- [Akmanova et al., 2018](#) – Akmanova, S.V., Kurzaeva, L.V., Kopylova, N.A. (2018). Designing a media educational concept of developing lifelong self-learning individual readiness. *Media Education*, 2: 37-49.
- [Archibald, 2015](#) – Archibald, T. (2015). They Just Know: The epistemological politics of “evidence-based” non-formal education. *Evaluation and Program Planning*, 48: 137-148.
- [Beddie, Halliday-Wynes, 2010](#) – Beddie, F., Halliday-Wynes, S. (2010). Informal and Non-Formal Learning in Vocational Education and Training. *International Encyclopedia of Education* (Third Edition): 240-246.
- [Beomkyu, Youngkyun, 2011](#) – Beomkyu, C., Youngkyun, B. (2011). Exploring factors of media characteristic influencing flow in learning through virtual worlds. *Computers & Education*, 57(4): 2382-2394. DOI: <https://doi.org/10.1016/j.compedu.2011.06.019>
- [Fedorov, 2012](#) – Fedorov, A.V. (2012). Media Education. *Big Russian Encyclopaedia*. Vol. 17. Moscow: Big Russian Encyclopaedia: 480.
- [Gorsky et al., 2012](#) – Gorsky, V.A., Suvorova, G.F., Smirnov, D.V., et al. (2012). Scientific basics of interaction and continuity of formal, non-formal and informal education. Ufa, 308 p.
- [Kharlanova, 2015](#) – Kharlanova, E.M. (2015). The development of university students' social activity in the process of integrating formal and non-formal education. Ph.D. Dis. Chelyabinsk:435.
- [Kouper, 2016](#) – Kouper, I. (2016). Professional participation in digital curation. *Library & Information Science Research*, 38 (3): 212-223. DOI: <https://doi.org/10.1016/j.lisr.2016.08.009>
- [Kuzevanova, 2013](#) – Kuzevanova, E.V. (2013). The role of quasi-professional activities in the actualizing the creative self-realization of the pedagogical university bachelors. *Siberian Pedagogical Journal*, 6: 148-152.
- [Littlejohn et al., 2016](#) – Littlejohn, A., Hood, N., Milligan, C., Mustain, P. (2016). Learning in MOOCs: Motivations and Self-Regulated Learning in MOOCs. *Internet and Higher Education*, 29: 40-48. DOI: <https://doi.org/10.1016/j.iheduc.2015.12.003>.
- [Mertens, 2010](#) – Mertens, M.D. (2010). Philosophy in mixed methods teaching: The transformative paradigm as illustration. *International Journal of Multiple Research Approaches*, 4 (1): 9-18. DOI: <https://doi.org/10.5172/mra.2010.4.1.009>
- [Novozhilov, 2011](#) – Novozhilov, V.Y. (2011). *Research methodology of integration in education*. Moskow: News, 232 p.
- [Palmer et al., 2008](#) – Palmer, S., Hol, D., Bray, S. (2008). Does the discussion help? The impact of a formally assessed online discussion on final student results. *British Journal of Educational Technology*, 39 (5): 847-858. DOI:<https://doi.org/10.1111/j.1467-8535.2007.00780.x>
- [Panina et al., 2007](#) – Panina, T.S., Vyshlaeva, L.P., Dochkin, S.A., Kazakov, A.Y. et al. (2007). Integration of vocational education institutions in educational institutions and complexes of continuous multi-level vocational education. Kemerovo: KRIRPO, 180 p.
- [Prestridge, 2019](#) – Prestridge, S. (2019) Categorising teachers' use of social media for their professional learning: A self-generating professional learning paradigm. *Computers & Education*, 129: 143-158. DOI: <https://doi.org/10.1016/j.compedu.2018.11.003>
- [Weinstein et al., 2015](#) – Weinstein, C.E., Krause, J.M., Stano, N. (2015). *International Encyclopedia of the Social & Behavioral Sciences* (Second Edition): 712-719.
- [Worsnop, 1994](#) – Worsnop, C. (1994). Screening Images: Ideas for Media Education. Mississauga: Wright Communication: 43.