ENTREPRENEURSHIP EDUCATION AS A NARRATIVE CREATIVITY IN DIGITAL TECHNOLOGY COORDINATES

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ABSTRACT

A model of designing digital narrative in entrepreneurship education is developed and grounded, which involves implementation of such interaction between teachers and students, during which the rational-logical and sensory-emotional characteristics of educational information are transmitted and acquired not only through verbal, but also other information channels through digital narratives. The model of designing digital narratives in education functionally combines five interconnected components: axiological-motivational, analytical-semantic, program-technological, praxeological-creative, result-reflexive, the content of which is specified by type, form of study, subject area, individual age specifics, material and technological resources, time availability, subjective characteristics of participants in the educational process. The model can be implemented in traditional, combined, distance learning, and it is an important component of open education systems.

Keywords: Entrepreneurship Education, Digital Narrative, Competence, Information and Communication Networks.

JEL Classifications: M5, Q2.

INTRODUCTION

In the 21st century humanity is undergoing a cardinal, multi-level, global, transformational change of its existence, driven by a rapid evolution of digital technologies and computer networks. Application of modern technologies in education should play a key role in creating necessary conditions for self-development of all subjects of educational activity, activation of cognitive and creative processes, development of necessary competencies, promote humanistic ideas.

The global spread of information and communication networks requires a different content and quality of pedagogical education, legitimizing a rapid transformation of traditional educational models into integrative, dynamic, combining humanistic and technological approaches, enabling to uncover cognitive and creative potentials of future masters of education.

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Studies conducted in the educational space indicate a spontaneous emergence and spread of digital narratives on social networks, an intense expansion of biographical digital narratives in today's media, a purposeful use of different types of narratives in the advertising industry.

At the same time, we should note a lack of coverage of the problem of improving the quality of education of future masters of education through the use of various types of digital narratives for developing competences of the 21st century, in particular development of cognitive, creative, communicative and technological skills in students since it is extremely important in both personal and professional life.

Purpose of the research: to theoretically substantiate the basics of designing digital narratives and to develop a methodological system for designing digital narratives in the educational process.

REVIEW OF PREVIOUS STUDIES

The urgency of the identified problem, analysis of the scientific-reference base of the study enabled to reveal a number of contradictions between:

- Availability of intensive scientific researches (articles, monographs, dissertations, projects) of the problem of educational functions of digital narratives in various sectors of continuous education and insufficient level of theoretical and practical development of these issues in the educational space (Choi, 2018).
- Active use of biographical digital narratives in the media space, including television, as well as their global dissemination on social internet networks and the lack of practical application of digital narratives in the education of future masters of education (Geraniou & Jankvist, 2019).
- The need for continuous education of citizens of the information society and the lack of teaching methods for future masters of education to design digital narratives in order to provide motivation for continuous self-improvement (Nyikes, 2017).
- Educational functions of biographical digital narratives concerning development of the 21st century skills and the lack of methodological bases for designing biographical digital narratives in the education of future masters of education (Drobyazko et al., 2019a; Drobyazko et al., 2019b).
- A pedagogical potential of digital narratives for development of cognitive, creative, technological skills and the lack of their design in teaching future masters of education (Elstad & Christophersen, 2017; Kasych & Vochozka, 2019).
- The need to individualize the educational process and make it attractive to students and insufficient use of digital biographical narratives as a means of increasing interest in learning and providing it with individually oriented characteristics (Hilorme et al., 2019a; Hilorme et al., 2019b).

METHODOLOGY

In total the following theoretical methods were applied: analysis of philosophical, pedagogical, psychological, sociological scientific references to clarify the development status of the problem and to identify the main categories of research, comparative-pedagogical analysis to study the experience, design to define criteria and develop a model for designing digital narratives; content analysis of information sources, authentic texts (autobiographies, personal diaries, epistolary, memoirs, notes, etc.); analysis and processing of the experimental work results, pedagogical forecasting.

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RESULTS AND DISCUSSIONS

The effectiveness of using digital narratives technology in the educational process largely depends on the skills of future masters of education to personally design and apply digital products for development of cognitive activity, creativity and unconventional thinking in students, nurturing their tolerance, empathy, proactive attitude, love and respect for other people. In other words, future masters of education, in addition to possessing digital narrative technology, should be competent to apply it in pedagogical activity.

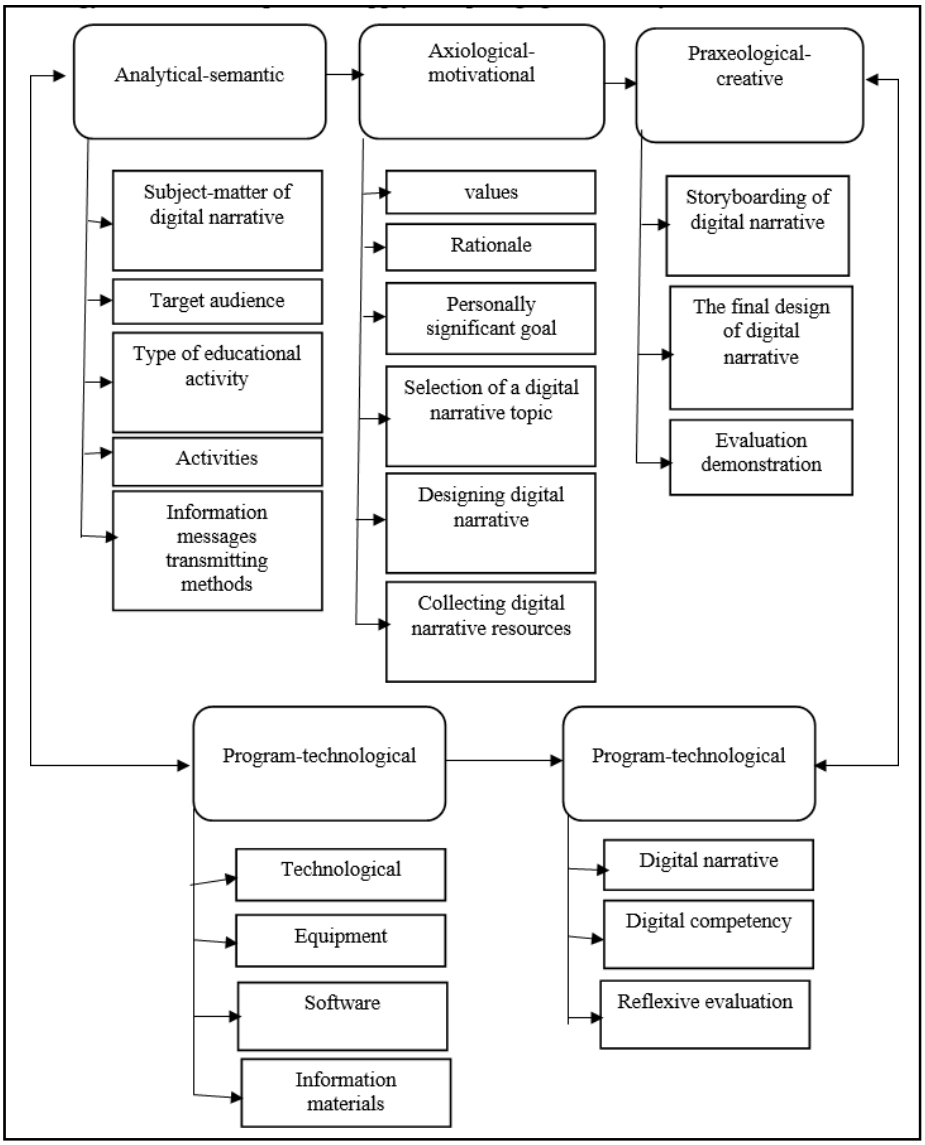

FIGURE 1
MODEL FOR DESIGNING DIGITAL NARRATIVES IN EDUCATIONAL PROCESS (AUTHOR'S DEVELOPMENT)

Thus, in order to achieve the set tasks, it is necessary to develop a model of the educational process, which involves implementation of such interaction between the teacher and the students, during which the rational-logical and sensuous-emotional characteristics of the

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educational information are transmitted and assimilated not only through verbal, but also other information channels aided by digital narratives.

Development of the author's model is aimed at the awareness of the future masters of education of the laws of extension, enlargement, renewal of a number of meanings and their shades that emerge in students as they gain new educational experience in creating digital narratives.

An important task of our study was to simulate the process of teaching future masters of education to design digital narratives, which was based on the idea of the importance of personally acquired experience for its further use. One of the ways to solve this problem was to develop a model for teaching future masters of education to design digital narratives.

The model of teaching future masters of education to design digital narratives implies availability and implementation of five interconnected components: axiological-motivational, analytical-semantic, technological-basic, praxeological-creative, result-reflective (Figure 1). Let’s describe these components.

The leading idea of isolating the axiological-motivational component of the model is the provision that for future masters of education designing digital narratives will ensure development of their personal culture, professional and creative competence, as well as implementation of creative and research approaches to learning.

The value-target spectrum of the component involves: deeper knowledge, understanding of the world around, the surrounding realities; intensification of self-cognition processes, search for life meanings; developing the ability to analyse the experience gained; developing own creativity; developing the ability to express one's point of view; developing the ability to study constantly, to improve oneself.

The axiological-motivational component of the model expresses the possibilities, advantages, values and driving forces of cognitive activity in the process of designing digital narratives, as well as: promotes development of students' research skills, enables independent study of the subject; makes the learning process dynamic and interactive; develops critical thinking skills, helps students to think deeply, clearly and in a variety of ways, especially when the material is complex; helps to develop skills of consistent, logical and persuasive reasoning, constructing one’s own judgments; (particularly when creating scripts and editing narratives); contributes to improving creative writing skills, expressing one’s thoughts in written form (writing, editing and editing scripts for digital narratives becomes natural, develops responsibility and independent work skills in the process of reviewing and correcting); stimulates creativity, which gives the opportunity to develop intellectual comprehension of information, research skills, to apply them to implementation of new, unconventional approaches to designing educational materials; enhances digital competence that is important to both the individual and professional life of individual in the information society.

Thus, the component combines the spiritual, moral, aesthetic values, motives of actions, their relationship with each other and social and cultural factors of personality development, on the basis of which the purpose and objectives of the project activity are formulated.

The analytical-semantic component of the model is distinguished on the basis that in designing digital narratives for the purpose of their use in pedagogical activity it is important that future masters of education have the ability to analyse relevance of the chosen topic and the developed plot of the digital narrative to individual cognitive interests and needs of students and their age specifics. It is advisable that future masters of education be able to find the appropriate

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form of organization of students' educational activities, during which the digital narrative will be created (lesson, integrated lesson, educational project, homework, etc.).

It is advisable for the teacher to make sure that students are aware of the defining features of digital narratives. Their focus should be on the integrative characterization of all digital narratives, without exception: clearly stated author's position on the informational message that transmits the digital narrative, as well as finding out whether students understand a possible subject matter of digital narratives: stories about defining events, people and places in our life; stories exploring or retelling historical events; instructive stories with comprehension of the main categories.

The analytical-semantic component of the model is distinguished on the basis that to characterize the content of designing digital narratives in order to use them in the educational activities of future masters of education, the following actions should be performed: to analyse the relevance of the chosen topic, the storyline of the digital narrative to individual cognitive interests and needs of students; to find out to whom the narrative is addressed, taking into account the following characteristics: age, gender, cultural background, educational experience; it is advisable to consider or select the appropriate form of students' educational activities, in the process of which digital narrative will be created: formal (lecture, seminar, practical, laboratory classes, educational project, etc.) and informal (circles, studios, clubs, creative workshops, etc.), to analyse technological and resource software.

The program-technological component provides a list of necessary technologies, equipment, information materials and software used to create, process, and present (publish) individual or group digital narratives and enable to integrate a variety of information sources, flexibly and dynamically deliver educational content.

The list of necessary technologies, equipment, information materials and software includes: computers, mobile phones, microphones, digital sound recorders, speakers, headphones, means for storing information materials of the designed digital narrative, digital images, videos, texts, access to the Internet, information support (Facebook, YouTube, Instagram, skype; sites that include resources from government departments, educational organizations, companies, network users providing free or copyrighted materials) software (PowerPoint, MicrosoftFotoStory, WindowsMovieMaker), used for design and presentation of digital narratives.

Various software (computer programs) and web-based technologies are used to create digital narratives. A computer program is a set of instructions in the form of words, numbers, codes, diagrams, symbols, or any other form expressed in a computer-readable form that drives it to achieve a specific goal or result.

In our opinion, the most effective (relevant) programs that can be recommended to future masters of education, students, teachers for practical implementation of the tasks of narrative learning, are the following programs: PowerPoint, PhotoStory, MovieMaker.

The result-reflexive component projects development of professional competence of future masters of education by enriching cognitive skills, creative and information-communication competences and giving the whole educational process research and creative character.

The model developed is variable (according to purpose, content). The model also acquires variations from the type of digital narrative (by topic, by technology of creation, by the way information is transferred to recipients, by number of persons, by the nature of the teacher's management of the process of digital narrative creation).

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On its basis, it is possible to develop teaching methods for future educators to create digital narratives in various subject areas, vocational and educational fields, in formal and non-formal learning. The author's model can serve to develop a number of competencies, among which are the following: spiritual, cognitive, creative, information and communication, media and social competences.

In our opinion, which is based on the results of the pedagogical experiment, it is advisable to begin work from designing biographical digital narratives in training future masters of education.

The choice of the biographical narratives among different types of digital narratives is justified by their importance as a priority means of providing humanistic and democratic processes in the training of future masters of education, an important component of which should be the life of each individual, its unique and exceptional existence.

RECOMMENDATIONS

Digital literacy can be measured by using digital assessment tools. The most common are electronic or digital portfolios.

A digital portfolio is a collection of electronic evidence collected and managed by a user, usually via the Internet. Such electronic evidence may be presented as digital text, electronic file, image, multimedia messages, blog, hyperlink, etc.

Digital portfolios are both a demonstration of a user's ability to express themselves electronically and, if hosted online, can be dynamically complemented over time.

There are different types of electronic portfolio: developmental; reflexive; representative. The developmental portfolio contains a record of what the author has done over a period of time and can be directly related to his/her learning outcomes; reflexive portfolio includes personal reflexion on the content of training and what it means personally to the author; a representative portfolio demonstrates the author's achievements, sometimes referred to as a career portfolio. Generally, the level of access to a digital portfolio is determined by its author.

Building digital competence involves a continuous process of mastering digital technologies to create, understand and preserve culture throughout life. Cultural heritage should be made more accessible through digital narratives that provide authentic information on the Internet and media, while educating, entertaining and inspiring people to self-development.

CONCLUSIONS

Development of a training model for future masters of education in designing digital narratives aimed at understanding the laws of the process under study in various areas of its implementation. The author's model assumes availability and implementation of five interrelated components: axiological-motivational, analytical-semantic, technological-basic, praxeological-creative, result-reflexive.

Separation of the axiological-motivational component of the model was based on understanding of the importance of the value, motivational attitude of future masters of education in the design of digital narratives. The component combines spiritual, moral, aesthetic values, motives of actions, their relationship with each other and the social and cultural factors of personality development, on the basis of which the purpose and tasks of the project activity are formulated.

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The model can be implemented in the context of traditional, combined, distance learning, and it is an important component of open education systems. The model developed is variable (according to purpose, content).

The model acquires specific characteristics depending on the type of digital narrative (by topic, by technology of creation, by the method of information transmission to the recipients, by the number of persons, by the nature of the teacher's management of the process of digital narrative creation).

On this basis it is possible to develop methods of designing digital narratives in different educational-subject areas, vocational-educational directions, in formal and informal training of future masters of education. Regardless of the implementation variant, the model is bound to preserve the main components, so the model is universal.

This research is launching a new direction in theory and practice that will enable an effective use of information and communication technologies for democratization, humanization, spiritualization of the educational process, which will meet both social and individual needs, and will be attractive to modern students.

Further directions of scientific research include substantiation of the conditions of use of digital narratives in various units of continuous education (preschool, general, higher formal and informal education, adult education, gerontological education) and the theory and practice of pedagogical formal and informal education (pre-school education pedagogy, general school and higher education pedagogy, art, medical, engineering, military pedagogy, management pedagogy, media pedagogy, inclusive pedagogy).

Further development requires the problem of extending educational functions of digital narratives in accordance with the technological platforms on which they will be created (Web-3.0, Web-4.0) and with the convergent processes in scientific cognition (bio-nano-cognitive technologies).

REFERENCES

Choi, S.Y. (2018). A Study on the digital competency for the fourth industrial revolution. *The Journal of Korean Association of Computer Education, 21*(5), 25-35.

Drobyazko, S., Makedon, V., Zhuravlov, D., Buglak, Y., & Stetsenko, V. (2019a) Ethical, technological and patent aspects of technology blockchain distribution. *Journal of Legal, Ethical and Regulatory Issues*, *22*(2S).

Drobyazko, S., Potyshniak, O., Radionova, N., Paranytsia, S., & Nehoda, Y. (2019b). Security of organizational changes via operational integration: Ensuring methodology. *Journal of Security and Sustainability Issues, 9*(1), 1595-1612.

Elstad, E., & Christophersen, K.A. (2017). Perceptions of digital competency among student teachers: Contributing to the development of student teachers' instructional self-efficacy in technology-rich classrooms. *Education Sciences, 7*(1), 27.

Geraniou, E., & Jankvist, U.T. (2019). Towards a definition of "mathematical digital competency". *Educational Studies in Mathematics, 102*(1), 29-45.

Hilorme, T., Sokolova, L., Portna, O., Lysiak, L., & Boretskaya, N. (2019a). *The model of evaluation of the renewable energy resources development under conditions of efficient energy consumption.* Proceedings of the 33rd International Business Information Management Association Conference, IBIMA 2019: Education Excellence and Innovation Management through Vision 2020. 7514-7526.

Hilorme, T., Sokolova, L., Portna, O., Lysiak, L., & Boretskaya, N. (2019b). Smart grid concept as a perspective for the development of ukrainian energy platform. *IBIMA Business Review.*

Kasych, A., & Vochozka, M. (2019). Modernization processes in the modern world: methodology, evolution, tendencies. *Revista ESPACIOS. 40*(24), 20.

Nyikes, Z. (2017). *Creation proposal for the digital competency framework of the middle-east European region*. In: Key Engineering Materials (pp. 106-111). Trans Tech Publications Ltd.

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