Opportunities of Educational Platforms in the Training of Specialists for the Tourism Industry: The Impact of Organizational and Methodological Factors of Training

Irina Viktorovna Bushueva[1], Ekaterina Sergeevna Kalinskaya[2], Natalia Nikolaevna Kasatkina[3], Svetlana Stanislavovna Mikova[4], Elena V. Aralova[5] and Tatiana Sergeevna Markova[6],

Russian State University of Tourism and Service, Moscow, Russia[1]
Kuban State University, Krasnodar, Russia[2]
Demidov Yaroslavl State University, Yaroslavl, Russia[3]
Peoples' Friendship University of Russia, Moscow, Russia[4]
K.G. Razumovsky Moscow State University of Technologies and Management (the First Cossack University), Moscow, Russia[5]
Russian State Social University, Moscow, Russia[6]

Summary

Modern conditions of the labor market development require the training of specialists in the tourism industry of a new generation who are capable of constantly updating knowledge, using innovative approaches to professional activity, and designing personal growth through non-formal education. The purpose of the study is to analyze the influence of organizational and methodological factors of learning using an educational platform on the personal aspects of passing a massive open online course (MOOC). The article substantiates the relevance of using educational platforms for training specialists in the tourism industry on the MOOCs posted on them. An empirical study of the influence of various characteristics of educational platforms and MOOCs on the interest of specialists in the tourism industry, as well as on the perceived usefulness of using educational platforms to improve their professional level, has been carried out. It has been proved that various organizational and methodological factors of learning using an educational platform have an impact on such personal aspects of the perception of MOOCs by potential listeners as interest in passing MOOCs and the usefulness of MOOCs.

Keywords:
Educational platform, massive open online courses, MOOCs, travel company, tourism industry specialist, interest, perceived usefulness

1. Introduction

The organization of labor is changing in the context of the development of ICT and the availability of information [1]. Currently, approximately 5% of theoretical and 20% of professional knowledge is updated annually [2]. Considering this, educational institutions cannot prepare specialists for professional activity throughout their lives in 4-6 years, at least because the obsolescence of knowledge in the conditions of the traditional education system occurs even before the end of training in an educational institution [3].

In addition, negative trends in the tourism sector related to quarantine restrictions and sanctions policy have actualized in Russia the problems associated with staff turnover, shortage of qualified personnel in the field of domestic tourism, and the need for retraining [4]. Employees of travel companies need regular special training and development [5, 6].

Considering the above, this problem is solved through the implementation of the "continuing education" concept, where formal education is not final, but only serves as a prerequisite for continuous professional development through the use of non-formal education [7, 8].

Modernity gives society-wide access to websites, blogs, and social networks of famous scholars, teachers, and researchers, which make it possible to quickly obtain the necessary information, share experience, communicate with specialists, and improve professionally [9, 10]. This limitless flow of knowledge requires structuring information using educational platforms of massive open online courses (MOOCs) – non-formal education platforms where courses from teachers of the world's leading universities with open access via the Internet are published [11]. Therewith, the absence of the need to physically leave the workplace for training purposes means that the employer's costs for staff training are reduced, especially if the MOOC is free.

Learning through educational platforms through MOOCs also helps to eliminate gaps in workplace learning. Many travel companies cannot meet even the minimum training needs of their employees [12]. Consequently, the attractiveness of using the available educational content of educational platforms increases [13].

In addition, employers, academia, and educational institutions recognize two growing educational trends in tourism: the importance of different learning styles and continuing education [14, 15]. Since MOOCs typically include many design and content features, they can fit a wide range of learning styles. Moreover, since they are based on open access, MOOCs provide continuous learning opportunities for everyone who has access to the Internet. Another important aspect of the use of MOOCs is the individualization of training [16], which involves students choosing and studying those MOOCs that allow them to deepen and expand knowledge, skills, and abilities on precisely those issues that they find interesting and necessary in their current professional activities.

Considering that educational platforms can play an important role in meeting the training needs of employees of travel companies, it becomes extremely important to identify factors that can influence the effectiveness of online employee training. Since the passage of MOOCs is usually an arbitrary and voluntary process, they differ from the usual professional development programs used by travel companies, when the staff is either required to complete the program or participates in it for the sake of obtaining some result (for example, promotion). As such, MOOCs involve a significant degree of self-study. Consequently, the significance of factors that may affect the usefulness of these types of training platforms may vary, even if there are tangible results or rewards associated with participation in the program and its completion.

Thus, the relevance of studying the problem of using educational platforms as a MOOC provider in the non-formal education of tourism specialists is due to the formation of the latest knowledge to develop competitive tourism and recreational specialists in demand on the labor market (tourism managers, marketers, tour designers, etc.) and workers of other professions employed in the tourism industry.

2. Literature Review

Researchers describe the content of the "MOOC" concept as a kind of distance learning, in which a large number of participants (up to 50,000) can take part, while open access to all materials via the Internet is assumed [17]; as one of the forms of distance education [18]; as educational courses for the study of certain disciplines with using information technology and the Internet [19]. Thus, MOOCs are training courses posted on the Internet with free access to them, which have two key features: open access and large-scale participation. Open access implies that the course is free of charge and open to access, and large-scale participation – participation in the course of a large number of participants from all over the world.

A study of the structure of MOOCs of various types and the features of their implementation was carried out in [20]. MOOCs offer a wide range of disciplines to study from a large number of industries: engineering, humanities, medicine, biology, social sciences, mathematics, business, information technology, and others. The priorities of students of online courses remain unchanged throughout all the years of their existence: the most popular are courses on the basics of computer science, statistics, business, and management. Special online educational platforms for virtual learning are emerging for teaching creative disciplines (music, art). The pedagogical and organizational features of the organization of the world MOOC platforms are considered in the studies [18, 21], and the theoretical and practical aspects of the use of MOOCs in higher education are presented in [22].

The works [23, 24] mainly provide comparative characteristics of the use of MOOCs, statistical data on the distribution of courses between scientific branches, the number of students who have registered for the course, the percentages of those who completed the course, who partially completed it, and those who simply enrolled in the course without active activity are compared. The experience of introducing MOOCs into the system of classical university training courses is presented, and the possibility of using online learning tools and their impact on the formation of professional competencies are analyzed in [25]. Therewith, MOOC studies in the tourism sector are relatively few [26-28].

Concerning the advantages of educational platforms in the system of non-formal adult education, researchers [29] point to the following: on-the-job professional development; expansion of methodological knowledge; transnational and intercultural communication; application of the experience of the best teachers from all universities of the world.

As noted in [30], the active spread of MOOCs in non-formal adult education will lead to the formation of a new educational paradigm with the maximum use of distance technologies and the creation of unified transnational information and educational environment.

The schemes of organizing the learning process using educational platforms are basically similar to each other: a potential listener who wants to gain modern knowledge, including in the field of tourism, and learn from leading teachers, entrepreneurs, managers, and the tourism industry, chooses a MOOC, then registers for the MOOC that interests him/her. The listener's activity consists of listening to lectures (usually in the form of video recordings), performing situational tasks, testing, and discussing tasks and problems on the forum. In addition, the student can pass the final certification and receive a certificate confirming the successful completion of the course [31].

Researchers [32] call mass, openness, the network nature of courses, their integrity, which involves not only individual

fragments of educational material, but also practical tasks, communicative a component, materials for testing the acquired knowledge, and, finally, the opportunity to receive a certificate upon successful assimilation of the course among the key features of MOOCs, which are associated with the implementation of the principles of continuity and individualization of education, solving the problems of transmitting modern scientific ideas grouped into an understandable form.

The study [33] noted the role of personal factors in learning using educational platforms, the main of which are considered to be the interest of the student and the perceived usefulness of learning. Interest, which depends on the beliefs and attitudes of the student, is understood as interest in what he/she receives in the learning process. It becomes the main factor of the learning process, provided that the usefulness of its results is expected. Interest, according to [34], is a vital aspect of learning.

The next factor associated with the use of educational platforms is the perceived usefulness of learning using MOOCs, which means how a student subjectively perceives the possibilities of MOOCs' educational platforms as a factor of learning effectiveness [35].

The purpose of the study is to analyze the influence of organizational and methodological factors of learning using an educational platform on the personal aspects of passing a MOOC.

Research hypothesis: various organizational and methodological factors of learning using an educational platform have an impact on such personal aspects of the perception of MOOCs by potential listeners as interest in passing MOOCs and the usefulness of MOOCs.

3. Methods

This study is a systematic study of the influence of various organizational and methodological factors of learning using an educational platform on the interest of potential course participants in passing the MOOC and the perception of the usefulness of passing the MOOC.

The proposed research model of this work includes the perception by potential MOOC listeners of various organizational and methodological factors and personal aspects of MOOC (Fig. 1).
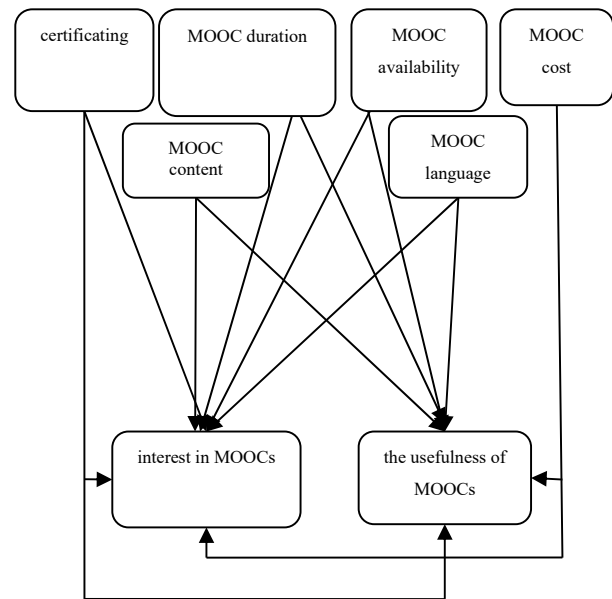

Fig. 1 Research model

At the first stage of the study, an assessment of organizational and methodological factors of MOOC passing by specialists already working in the tourism sector was carried out using survey methods and analysis of the data obtained.

The study sample consisted of persons (180 people) registered on the Open Education platform to take the course "Consumer Behavior in Cultural Tourism" provided by the Higher School of Economics. A letter was sent to potential MOOC students by e-mail with an offer to participate in the survey, regardless of whether they completed the course in whole or in part. The respondents were informed that the author intends to publish the results of the study, but their answers will remain anonymous and only summary results will be published. Consent to take part in the survey was received from 125 people.

The questionnaire was designed to measure: a) organizational and methodological factors of learning using an educational platform; b) interest in passing the MOOC and the perceived usefulness of learning on an educational platform.

The following were selected as organizational and methodological factors of training using the educational platform: certificating, MOOC duration, MOOC availability, MOOC cost, MOOC content, and MOOC language. When determining the significance of these factors, respondents rated them on a 5-point Likert scale: from "absolutely not important" (1) to "very important" (5). Similarly, the personal factors of learning were evaluated using an educational platform:

- interest in MOOCs – from "absolutely not interested" (1) to "very interested" (5);

- perceived usefulness of learning – from "absolutely useless" (1) to "very useful" (5)

A statistical analysis of the results of the study was carried out using Spearman's rank correlation method at the second stage of the study.

4. Results

The results of an empirical study of organizational, methodological, and personal factors of MOOC passage are presented in Table 1.

Table 1: Results of the study of organizational, methodological, and personal factors of MOOC passing

		Average value	Standard deviation
Organizational and methodological factors	certificating	3.722	0.718
	duration	3.193	0.977
	availability	3.155	0.346
	cost	3.932	0.915
	content	4.254	0.371
	language	4.132	0.249
Personal factors	interest	3.589	0.698
	usefulness	4.052	0.716

The results of a statistical analysis of the relationship between organizational, methodological, and personal factors of MOOC passing using Spearman's rank correlation method are presented in Table 2.

Table 2: The relationship between organizational, methodological, and personal factors of MOOC passing

Organizational and methodological factors	Factors of mobile learning effectiveness	
	interest	usefulness
certificating	0.44 (p<0.01)	0.51 (p<0.01)
duration	0.11 (p>0.1)	0.39 (p<0.01)
availability	0.06 (p<0.1)	0.07 (p<0.1)
cost	0.46 (p>0.1)	0.12 (p<0.1)
content	0.49 (p<0.01)	0.53 (p<0.01)
language	0.52 (p<0.01)	0.04 (p<0.1)

The results of the study showed the influence of various characteristics of educational platforms and MOOCs on the interest of specialists in the tourism industry in their use, such characteristics of educational platforms and MOOCs as duration and accessibility do not affect interest, but the cost, compliance of the content provided by educational platforms and MOOCs with the needs of potential listeners, the possibility of obtaining a certificate and the language of the course affect interest potential listeners in their use.

Also, the results of the study showed that the content, duration of MOOCs, and certificating affect the perceived usefulness, while the availability, cost, and language of MOOCs do not have such an impact.

5. Discussion

The obtained results of the influence of various characteristics of MOOCs on interest are confirmed by previous studies, according to which students who consider MOOCs appropriate to their needs will be motivated to use them as an educational technology [33], and students who consider MOOCs suitable for their training are more likely to be satisfied after completing the course [23]. Research also demonstrates that interest can be increased by the motivation to use educational platforms [34]. The obtained results of the influence of various characteristics of MOOCs on perceived usefulness confirm studies on the influence of learning content (content) on perceived usefulness [29, 31].

Based on the results obtained, we can note the following.

Firstly, despite the existence of educational platforms offering MOOCs for tourism professionals (Table 3), their potential in the tourism industry to improve the educational level of specialists remains insufficiently realized.

Table 3: Educational platforms offering courses on tourism for specialists

Platform	MOOC	Course provider	Duration (weeks)	Language
edX	Science and Cooking: From Haute Cuisine to the Science of Soft Matter	Harvard	14	English
	Introduction to Global Hospitality Management	Cornell University	6	English
Coursera	The Fundamentals of Revenue Management	ESSEC Business School	4	English with subtitles
	The Fundamentals of Hotel Distribution		4	
	Breaking Down Today's Commercial Silos		4	
	International Travel Preparation, Safety and Wellness	The Johns Hopkins University	4	
	Managing Food and Beverage Companies	Universita Bocconi	4	
Open Learning	Introduction to Wines 101	Taylor's University	14	English with subtitles
Canvas Network	Writing American Food	The New School	5	English
	Innovators of American Cuisine		5	
	Tourism Industry Analysis	University of Central Florida	7	
	Hospitality Financial Management		6	
Open education	Consumer behavior in cultural tourism	Higher School of Economics	10	Russian

Thus, the Coursera online platform, with which educational institutions of the USA (Stanford, Princeton, California, Columbia Universities), individual states (Tennessee, New York, Nebraska), and leading cultural organizations (the Museum of Natural History of the USA) cooperate, contains various courses of tourist destinations, divided into several modules, during the study of which students are being tested. The courses contain information about the lecturer and recommended literature. After registration, the listener receives free access to all online courses and the schedule (a message about the beginning of lectures is sent by e-mail). A certificate is provided after completing the courses [22].

The Canvas Network online platform is also distinguished by a variety of courses in the tourism, hotel, and restaurant business. The courses do not have a unified approach to teaching: the material is explained in short video lectures, and questions are discussed on the forum with the teacher and other listeners. The certificate is not always provided. The features of the course are contained in the above description, which lists: for whom the program was developed, is it available to everyone or is it focused exclusively on professionals of a certain industry. Sometimes courses have an age limit. The platform offers free, shareware (with the purchase of additional educational materials, and textbooks) and paid courses that are announced in advance, the number of places on them is limited [24].

It should be noted that in Western European countries, education through educational platforms is the leading form of knowledge acquisition and professional development in the system of non-formal adult education. Today, these services offer hundreds of MOOCs that cover the most important areas of knowledge [18].

However, according to our observations, the majority of Russian specialists in the tourism industry, mainly for subjective reasons, have a biased attitude to the realization of the possibility of improving their professional knowledge through educational platforms.

Therewith, attention should be paid to the readiness of society and its social institutions to perceive online education as capable of ensuring the quality of professional knowledge, if possible. Under certain assumptions, we can talk about the existence of a contradiction between the offer of educational platforms for the use of MOOCs and the unwillingness of potential listeners to take advantage of it. In the context of solving this contradiction, we consider it possible (necessary) to popularize educational platforms in the domestic tourism industry to use MOOCs as a means of professional development regularly. In our opinion, this will increase the popularity of educational platforms among specialists.

Secondly, attention should be paid to the need for constant adjustment of the motivation of potential MOOC listeners.

In our opinion, the motivation of specialists in the field of tourism to study on educational platforms should provide for the possibility of developing: business motivation (opportunities for professional and career growth); cognitive motivation (updating professional knowledge); motives for self-realization and self-affirmation (the possibility of presenting the knowledge gained to colleagues with obtaining a certain status).

Thirdly, the development of educational platforms in Russia, in our opinion, is complicated by the following factors: insufficient number of specialists to develop high-quality MOOCs and support the platforms on which they will be located; the problem of recognizing the certificate of successful completion of an online course by universities and employers; financial barriers, because the development of MOOCs requires material and qualified human resources. The results of our research also have some important practical implications for the development of tourism industry professionals. The integration of MOOCs into the training and development strategy of a travel company can provide a simple and cost-effective means of expanding the range of knowledge and skills of employees. Thus, several MOOCs can be easily integrated into the travel company's training and development program. For example, new employees with little or no experience in the tourism business can improve their professional level after passing the MOOC. In addition, travel agencies can use separate components (modules) of MOOCs for the implementation of specific areas in staff training.

6. Conclusion

Training on educational platforms on MOOCs is a progressive pedagogical technology that is based on modern achievements in the field of information and telecommunication technologies. Taking into account the global trends in the dynamics of the development of non-formal education using MOOCs, it can be argued that this development will have a considerable impact on the enrichment and updating of knowledge, the use of leading international experience in the field of tourism, tourism management, and marketing.

The purpose of this study was to investigate the influence of organizational and methodological factors of learning using an educational platform on the personal aspects of passing the MOOC. The results of the study confirmed the hypothesis that various organizational and methodological factors of learning using an educational platform influence such personal factors of perception by potential students of MOOCs as interest in passing MOOCs and the usefulness of MOOCs.

However, the study has some limitations. Thus, we considered only the influence of some characteristics of MOOCs on the interest and perceived usefulness of

educational platforms in this research, therefore, future studies using other characteristics are expected.

Acknowledgments

References

[1] Hernández de Velazco, J., Chumaceiro, A. C., Atencio Cárdenas, E.: *Calidad de Servicio y Recurso Humano: Caso Estudio Tienda por Departamentos*. Revista Venezolana De Gerencia, vol. 14(47) (2009). https://doi.org/10.37960/revista.v14i47.10544

[2] Ates, H., Alsal, K.: *The importance of lifelong learning has been increasing*. Procedia - Social and Behavioral Sciences, vol. 46, pp. 4092-4096 (2012). https://doi.org/10.1016/j.sbspro.2012.06.205

[3] Mozhaeva, G.V.: *Massovye onlain-kursy: novyi vektor v razvitii nepreryvnogo obrazovaniya* [Mass online courses: a new vector in the development of lifelong education], Otkrytoe i distantsionnoe obrazovanie, (2), pp. 56-65 (2015).

[4] Ponkratova, L., Feoktistov, S., Adashova, T., Nikolskaya, E., Livson, M.: *Tourism Development Prospects in the Context of Global Socio-Economic Trends*. Journal Of Environmental Management and Tourism, vol. 11(8), pp. 1988-1993 (2021).

[5] Nimatulaev, M., Sirbiladze, K., Tsvetkova, O., Ivanova, L., Shelygov, A.: Digital Technologies as a Factor in Increasing Services Sales in Tourism Industry. Journal Of Environmental Management and Tourism, vol. 12(4), pp. 916-921 (2021). https://doi.org/10.14505//jemt.v12.4(52).06

[6] Nedosugova, A. B., Khairullina, D. D., Baranova, E. A., Shugaeva, E. A., Korotaeva, I. E.: *Ensinando guias de turista línguas estrangeiras: encontrando métodos eficazes*. Revista EntreLinguas, Araraquara, vol. 7(esp.4), p. e021102, (2021). DOI: https://doi.org/10.29051/el.v7iesp.4.15660

[7] Cronholm, S.: *Lifelong learning: Principles for designing university education*. Journal of Information Technology Education: Research, vol. 20, pp. 35-60 (2021). https://doi.org/10.28945/4686 7

[8] Morales, L. B. G., Kapustina, D. M.: *Particularidades de las réplicas en el proceso de la comunicación lingüística intercultural en la etapa inicial de la conversación telefónica, entre representantes de los países hispano y ruso-hablantes*. Amazonia Investiga, vol. 10(45), pp. 82-87 (2021). https://doi.org/10.34069/AI/2021.45.09.8

[9] Krivova, A. L., Kalliopin, A. K., Korotaeva, I. E., Shafazhinskaya, N. E., Ermilova, D. Y.: *Social Networks as a Means of Monitoring Students' Progress*. Propósitos y Representaciones, vol. 9(3), p. e1264 (2021). http://doi.org/10.20511/pyr2021.v9nSPE3.1264

[10] Dzyuba, E. M., Zakharova, V. T., Latukhina, A. L., & Sheveleva, T. N.: *Open education courses as a relevant environment for improving professional competencies of teachers*. Revista Tempos E Espaços Em Educação, vol. 14(33), p. e16164 (2021). https://doi.org/10.20952/revtee.v14i33.16164

[11] Jordan, K.: *Massive open online course completion rates revisited: assessment, length, and attrition*. International Review of Research in Open and Distributed Learning, vol. 76(3), pp. 341-358 (2015).

[12] Mosalev, A.I., Kryukova, E.M., Mukhomorova, I.V., Egorova, E.N., Khetagurova, V.S.: *Experience of Socially Responsible Tourism Projects in Russia*. IOP Conference Series: Earth and Environmental Science, Tomsk, 30 October – 01 November. Tomsk: Institute of Physics Publishing, (2018). https://doi.org/10.1088/1755-1315/204/1/012030

[13] Pivneva, S., Kokotov, S., Livson, M., Artemyeva, S., Kostromina, E., & Dmitrieva, N.: *Effect of lean technology introduction on improving the competitiveness of the training of future specialists with high professional competence*. Revista Conrado, vol. 18(86), pp. 131-137 (2022).

[14] Cuffy, V., Tribe, J., Airey, D.: *Lifelong learning for tourism*. Annals of Tourism Research, vol. 39(3), pp. 1402-1424 (2012). https://doi.org/10.1016/j.annals.2012.02.007

[15] Rodriguez-Anton, J.M., Alonso-Almeida, M., Andrada, L.R., Pedroche, M.C.: *Are university tourism programmes preparing the professionals the tourist industry needs? A longitudinal study*. Journal of Hospitality, Leisure, Sport & Tourism Education, vol. 12(1), pp. 25-35 (2013). https://doi.org/10.1016/j.jhlste.2012.10.002

[16] Klobas, J.E., Mackintosh, B., Murphy, J.: *The anatomy of MOOCs*. In: Kim, P. (ed.). Massive open online courses: The MOOC revolution. New York, NY: Routledge, pp. 1-22 (2014).

[17] Baker, R.M., Passmore, D.L.: *Value and Pricing of MOOCs*. Education sciences, vol. 6(14), p. 14 (2016). https://doi.org/10.3390/educsci6020014

[18] Emanuel, E.J.: *Online education: MOOCs taken by educated few*. Nature, vol. 503(7476), p. 342 (2013). https://doi.org/10.1038/503342a

[19] Chauhan, A.: *Massive open online courses (MOOCs): Emerging trends in assessment and accreditation*. Digital Education Review, vol. 25, pp. 7-17 (2014).

[20] Pilli, O., Admiraal, W.: *A taxonomy for Massive Open Online Courses*. Contemporary Educational Technology, vol. 7(3), pp. 223-240 (2016). http://doi.org/10.30935/cedtech/6174

[21] Czerniewicz, L., Deacon, A., Glover, M., Walji, S.: *MOOC— Making and open educational practices*. Journal of Computing in Higher Education, vol. 29, pp. 81–97 (2017). https://doi.org/10.1007/s12528-016-9128-7

[22] Mohamed, M.H., Hammond, M.: *MOOCs: a differentiation by pedagogy, content and assessment*. International Journal of Information and Learning Technology, vol. 35(1), pp. 2-11 (2018). http://doi.org/10.1108/IJILT-07-2017-0062

[23] Rodriguez, C.O.: *MOOCs and the AI-Stanford like courses: Two successful and distinct course formats for massive open online courses*. European Journal of Open, Distance, and E-Learning, vol. 15 (2012).

[24] Fischer, G.: *Beyond hype and underestimation: Identifying research challenges for the future of MOOCs*. Distance Education, vol. 35, pp. 149–158 (2014). http://doi.org/10.1080/01587919.2014.920752

[25] Andone, D., Mihaescu, V.: *Blending MOOCs into Higher Education Courses-A Case Study*. Learning with MOOCS (LWMOOCS), pp. 134-136 (2018). https://doi.org/10.1109/LWMOOCS.2018.8534606

[26] Cantoni, L., Kalbaska, N., Inversini, A.: *E-learning in tourism and hospitality: A map*. Journal of Hospitality,

Leisure, Sport, and Tourism Education, vol. 8(2), pp. 148-156 (2009).

[27] O'Mahony, B., Salmon, G.: *The role of massive open online courses (MOOCs) in the democratization of tourism and hospitality education*. In: Dredge, D., Airey, D., Gross, M.J. (eds.). The Routledge handbook of tourism and hospitality education. New York, NY: Routledge. 2014, pp. 130-142.

[28] Ryan, P., Horton-Tognazzini, L., Williams, A.: *A Snapshot of MOOCs in Hospitality and Tourism*. Journal of Hospitality & Tourism Education, vol. 28(2), pp. 107-112 (2016). http://doi.org/10.1080/10963758.2016.1163497

[29] Murphy, J., Kalbaska, N., Williams, A., Ryan, P., Cantoni, L., Horton-Tognazzini, L.: *Massive open online courses: Strategies and research areas*. Journal of Hospitality & Tourism Education, vol. 26(1), pp. 39-43 (2014). https://doi.org/10.1080/10963758.2014.880618

[30] Israel, M. J.: *Effectiveness of Integrating MOOCs in Traditional Classrooms for Undergraduate Students*. International Review of Research in Open and Distributed Learning, vol. 16(5), pp. 102-118 (2015). http://doi.org/10.19173/irrodl.v16i5.2222

[31] Jordan, K.: *Initial trends in enrolment and completion of massive open online courses*. International Review of Research in Open and Distance Learning, vol. 15(1), pp. 133-159 (2014). https://doi.org/10.19173/irrodl.v15i1.1651

[32] Lane, A., Caird, S., Weller, M.: *The potential social, economic and environmental benefits of MOOCs: operational and historical comparisons with a massive 'closed online' course*. Open Praxis International Journal, vol. 6(2), pp. 115-123 (2014). http://doi.org/10.5944/openpraxis.6.2.113

[33] Borras-Gene, Q., Martinez-Nunez, M., Fidalgo-Blanco, A.: *New challenges for the motivation and learning in engineering education using gamification in MOOC*. International Journal of Engineering Education, vol. 32, pp. 501-512 (2016).

[34] Simmering, M.J., Posey, C., Piccoli, G.: *Computer self-efficacy and motivation to learn in a self-directed online course*. Decision Sciences Journal of Innovative Education, vol. 7, pp. 99-121 (2009). http://doi.org/10.1111/j.1540-4609.2008.00207.x

[35] Kim, K., Oh, I.S., Chiaburu, D.S., Brown, K.G.: *Does positive perception of oneself boost learning motivation and performance?* International Journal of Selection and Assessment, vol. 20, pp. 257-271 (2012). https://doi.org/10.1111/j.1468-2389.2012.00598.x