

## DIGITAL TRANSFORMATION RESHAPING TOURISM EDUCATION: INVESTIGATING THE INFLUENCE OF MOOCS ON TEACHING TOURISM FUNDAMENTALS AND LOCAL LORE

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**Abstract:** With the rapid development of new innovative technologies in the education system, massive open online courses (MOOCs) have begun to appear. It is very important to evaluate the effectiveness of MOOC in teaching the basics of tourism and local lore to students of the educational program in Geography. Therefore, the purpose of this study was to investigate the effectiveness of teaching the discipline "Fundamentals of organising and conducting tourism and local lore activities" to students of the Geography educational programme of higher education institutions (universities) in Kazakhstan through MOOC. In the study, the elective subject "Fundamentals of organising and conducting tourism and local lore activities" was taught through MOOC on the Eduardo platform. The study consisted of two phases, with 14 students from the Kazakh National Women's Teacher Training University (KNWTTU) as the control group and 19 students from the Astana International University (AIU) as the experimental group. As a result, at the first stage, KNWTTU and AIU students were approximately at the same level. In the second formative stage, students in the control group remained at the initial level, while students in the experimental group showed a high level. In the first phase, the experimental group scored 10.5% "high", 15.8% "medium" and 73.7% "low"; after MOOC training, 31.6% "high", 47.4% "medium" and 21% "low". Thus, the use of MOOC in the formation of tourism and local lore competence of future geography teachers contributes to the improvement of students' knowledge and understanding of their native land and the formation of tourism and local lore skills.

**Key words:** Moocs, tourism education, digital transformation, local lore, training, Kazakhstan

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## INTRODUCTION

The rapid development of new innovative technologies has facilitated the evolution of the educational model from traditional face-to-face learning to online distance learning (Hew and Cheung, 2014). The rapid development and integration of new innovative technologies is changing perceptions of all aspects of education (Goopio and Cheung, 2021). MOOCs are a method of online learning available to students anywhere in the world to improve their skills (Altalhi, 2021). MOOC are also an innovative way for teachers to interact with students and a new paradigm for online learning (Soares et al., 2015). A MOOC is a short specialised course, offered for free or a small fee, which gives a certificate of completion (Kaplan and Haenlein, 2016). MOOC usually involve the provision of content through video lectures by renowned experts in a particular discipline (Pappano, 2012). The first modern MOOC on an open platform was held at Athabasca University in 2008 (Kolowich, 2013). In 2015, MOOCs had a total of 4,550 programmes involving more than 570 universities, with 35 million students (Cook, 2016).

Nowadays, with the increasing popularity of MOOCs, tourism and local lore are becoming more and more accessible to the general public. The works of a number of international scholars are valuable in this direction, including the following: Murphy et al. (2015), Annaraud and Singh (2017), Lin and Cantoni (2017) and Kong (2022). Furthermore, although some academics, such as Jackson (2013), doubt the use of MOOC, this innovative learning tool has a significant impact on digital education (Barcena and Martín-Monje, 2014). Nevertheless, although there are studies of MOOC dealing with various topics, research in the context of tourism and local lore is still scarce. Many of them focus on students' visions, leaving gaps in the literature on MOOC educators. In this context, the importance of MOOCs as a tool to improve the quality of higher education and the competitiveness of universities is clear (Hone and El Said, 2016). The emergence of new education formats, such as MOOC, will have a fundamental impact on the higher education sector as well as other sectors (Jo, 2018). In addition, one of the main benefits of MOOCs for universities is that they provide instantaneous data on students' online activity, allowing developers to continuously improve their courses (QS, 2016). Extensive data from digital MOOC platforms can be of great benefit to research on online learning (Diver and Martinez, 2015). Empirical research in this field is therefore needed to understand students' perceptions and evaluate the effectiveness of learning in tourism and local lore education through MOOC.

Thus, the purpose of this study was to investigate the effectiveness of teaching the discipline "Fundamentals of Organising and Conducting Tourism and Local Lore Activities" to Geography students of Kazakhstan higher education institutions through MOOC. This is due to the fact that one of the effective methods of shaping students' tourism and local lore competence in the geography education system is the MOOC. In addition, no one has yet fully explored the possibilities of learning the basics of tourism and local lore through MOOC on the part of Kazakhstani scientists. Therefore, it is very important to explore the possibilities of using MOOCs so that future geography teachers will be competent in organizing and conducting tourism and local lore activities (Berdenov et al., 2021; Gozner. et al., 2021).

The State Programme for the Development of Tourism Industry of the Republic of Kazakhstan for 2019-2025 notes "the insufficient level of qualification of teachers and specialists in tourism and local lore technology. The need for professional development of teachers in tourism and regional studies is 69.2%" (Resolution of the Government of the Republic of Kazakhstan dated May 31, 2019), the indication of the relevance of the issue determines the relevance of the issue. In addition, research aimed at developing tourism and local lore competences of future geography teachers (Honcharuk et al., 2021; Rozhi et al., 2022; Iliş et al., 2021; Herman et al., 2023; Demeuov et al., 2021; Issakov et al., 2023a; Ogutu et al., 2023) determines the need for appropriate decisions with identifying issues of tourism and local lore activities organisation (Gozner et al., 2021; Cheng et al., 2023; El Archi et al., 2023a; Polishchuk et al., 2023).

Therefore, in accordance with the objectives of the study, we took as the object of study students of the educational program in "Geography" "AIU" located in Astana and "KNWTTU" located in Almaty, Republic of Kazakhstan. The study used modelling, MOOC, data analysis, mathematical, comparative and control methods to shape the tourism and local lore competence of future geography teachers. It is aimed at determining the effectiveness of teaching by means of specially developed curriculum and structural model of the discipline "Fundamentals of organizing and conducting tourism and local lore activities"- MOOC. The study determines the results of revealing and formative research practices on specially prepared control questions. Developing the role of MOOCs in teaching tourism and local lore to future teachers of geography, improving the methodological system of tourism and local lore research at the university and organising tourism activities in education will be the focus of the relevant decisions. This study, in comparison, helps to assess the current tourism and local lore competence of future geography teachers in Kazakhstan universities, to identify the importance of studying and promoting students' knowledge about their native land, to form tourism and local lore skills and to improve students' knowledge.

In the realm of tourism and hospitality education, an increasing number of MOOCs have become accessible to the general public (Hsu, 2018). In a sector facing workforce shortages, MOOCs offer valuable opportunities for further training to in-service personnel. Furthermore, they serve as a knowledge dissemination channel for individuals aspiring to work in this field, leading to rapid growth in hospitality and tourism subjects delivered through MOOCs in recent years (Xiao et al., 2019). Exploring how learners can best benefit from MOOCs is a compelling area of study (Hood et al., 2015). Despite its significance, empirical research on the application of MOOCs in hospitality and tourism education remains limited (Veletsianos et al., 2015). Previous research (Chowdhury, 2020; Sharma et al., 2022) has highlighted the positive impact of technology-mediated education on enhancing overall learning effectiveness and satisfaction among learners. These studies also underscored the significance of user-friendliness in technology-mediated teaching tools, as it plays a crucial role in accelerating the adoption of online education by students. Additionally, Wieser and Seeler (2018) found that integrating technology into the education system presents an opportunity to cater to students in an advanced manner. The authors emphasized the necessity for higher education institutions to take initiatives in implementing various technology-based teaching-learning tools.

According to Deale (2015), technology's impact on education and the hospitality and tourism industry is pervasive, spanning across various sectors such as lodging, foodservice, meetings, special events, and even education itself. One notable technological advancement in this domain is MOOCs. However, empirical research on MOOCs is still in its early stages (Ossiannilsson et al., 2016). A recent study conducted by Kala and Chaubey (2023) has demonstrated a significant correlation between student engagement and perceived learning in the realm of tourism-Massive Open Online Courses (MOOCs). The research proposed various approaches to ensure student engagement and perceived learning, contributing to a positive attitude towards MOOC platforms and the institutions delivering these courses.

This study aimed to explore the effectiveness of using MOOCs as a means of teaching the discipline "Fundamentals of Organising and Conducting Tourism and Local Lore Activities" to Geography students in higher education institutions in Kazakhstan. The choice to investigate this approach stems from recognizing MOOCs as an effective method for cultivating students' competence in tourism and local lore within the geography education system. Despite its potential, the possibilities of learning tourism and local lore through MOOCs have not been thoroughly explored by Kazakhstani scientists until now. Hence, this research becomes particularly significant in shedding light on the untapped potential of MOOCs for developing the knowledge and skills required by future geography teachers in organizing and conducting tourism and local lore activities. By examining this novel approach, the study seeks to contribute valuable insights to enhance the competence and pedagogical practices of geography educators in Kazakhstan.

## MATERIALS AND METHODS

The methodological basis of the study is to define the place of tourism and local lore competence by identifying and systematising the professional competences needed to train future geography teachers (Mazbayev, 1993; Ozerov, 2021; Bedyuk, 1999; Konstantinov, 2003; Abisheva and Abdreeva, 2019; Ivleva, 2006; Omarov, 2008; Serikova, 2009, Vukolov, 1997; Smirnov, 2012); Assessment of the possibility of forming tourism and local lore competence of geography teachers according to the components "motivational and emotional-value", "acquisition of new activity-cognitive and subject-professional knowledge" and "self-development and research competence" (Braslavska and Roghi, 2019; Maslova et al., 2020; Yarmakeev et al., 2016); developing your own structural model for developing tourism and local lore competence (Rozhi et al., 2023; Melnyk et al., 2019); determining the effectiveness of mobile GIS applications in organising and carrying out tourism and local lore activities (Lee, 2020; Sebastian and De Miguel, 2017; Wang et al., 2017); Preparation of the teaching package for the discipline "Fundamentals of organising and conducting tourism and local lore activities", its preparation and testing in practice of the MOOC training programme (Golovanov, 2008; Sadykov and Gizzatshanova, 2022; Batyrbekov et al., 2022) there were conceptual ideas.

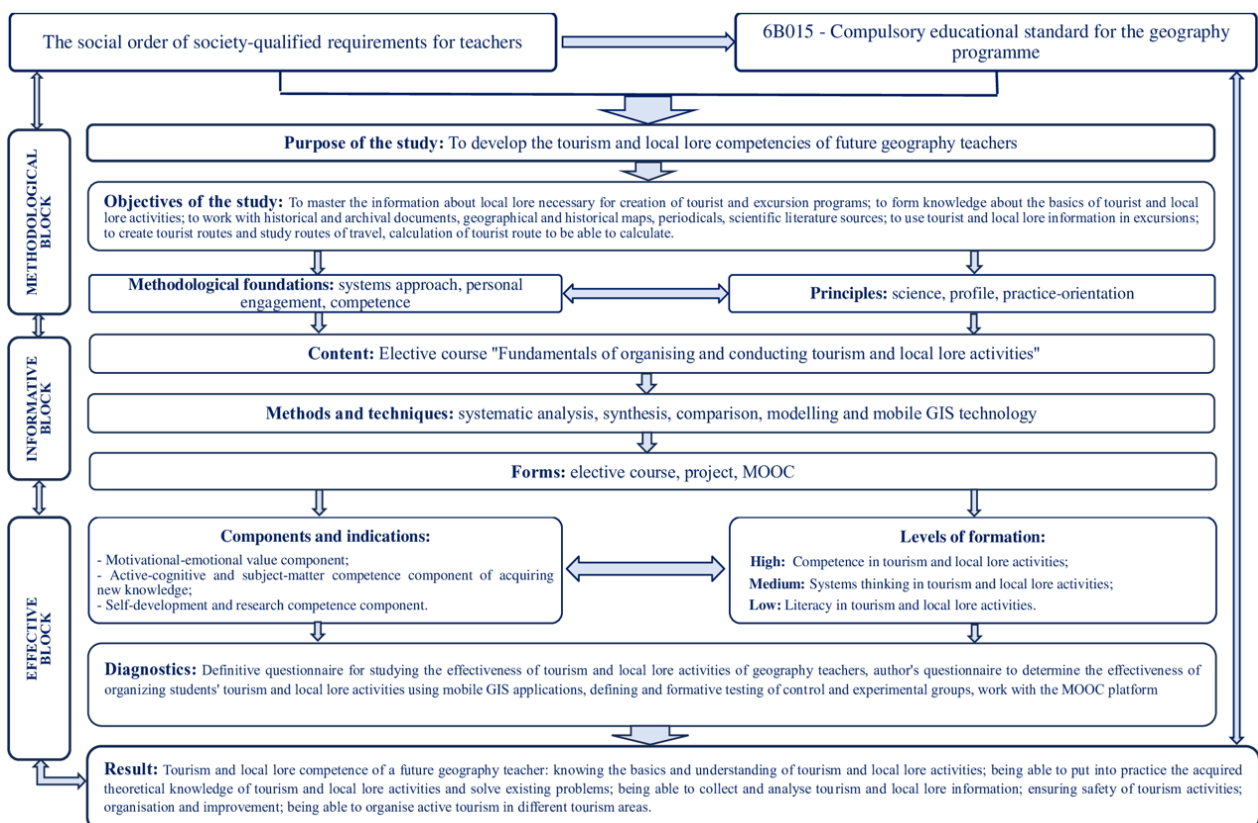


Figure 1. Structural model of tourism and local lore competence formation for future geography teachers (Source: by the authors)

The study aimed to assess the effectiveness of teaching the discipline "Fundamentals of organising and conducting tourism and local lore activities" to students in the geography programme of the University of the Republic of Kazakhstan

through MOOC. Therefore, after conducting a literature review, we developed our own structural model of understanding the basics of organising and conducting tourism and local lore activities, having established that all components of tourism and local lore competence of future geography teachers are closely interrelated (Figure 1).

The methodological and structural block of the model includes: *methods* (activity-based, systemic, personal, technological, competence-based); *principles* (scientific, visual, problem-based, developmental and educative learning, activity and independence, area studies); *competences* (motivational-emotional-valuable, activity-cognitive and research competences). The goal (improving future geography teachers' training for local lore and tourism work on the basis of competence-based approach), tasks (formation of positive motivation, transfer of subject knowledge and skills of local lore and tourism research, personal qualities and competences to students) are distinguished within the target block of the model.

In addition, based on this model, we prepared a curriculum for the discipline "Fundamentals of organising and conducting tourism and local lore activities" and a MOOC course on the Eduardo platform for learning through MOOCs. The MOOC course consists of 3 modules and 15 lectures and 15 practical sessions. During this study, 19 third year students of "Geography" educational programme of AIU took part as experimental group and 14 second year students of "Geography-history" educational programme of KNWTTU took part as observation group.

In the first stage of the study, the answers to the "defining" questions were obtained, and in the second stage, the "formative" questions were obtained. Assessment of answers to the question was evaluated as "high level", "medium level" and "low level":

*High level:* pupils show all the most important aspects of the history, nature, demography, ethnogeography, culture, economy, ecology of their native land, give specific examples.

*Medium level:* students describe individual aspects of tourism and local lore (e.g. geographical, historical, natural, ecological, etc.), give specific examples.

*Low level:* students do not answer or do not know about the history, nature, demography, ethno-geography, culture, economy, ecology of their native region, have difficulties in giving examples.

We presented MOOC lessons on the discipline "Fundamentals of organising and conducting tourism and local lore activities", developed on the Eduardo platform using the ZOOM software, and organised an explanatory lesson. The explanatory work started with a presentation of the Eduardo platform, then we provided information about the lecture and presentation packages, video lectures, test questions, quiz, documentation possibilities and the 3 MOOC core modules. The control group was informed about the content of the discipline "Fundamentals of organising and conducting tourism and local lore activities". The study lasted for a fortnight from 17.04.2023 to 30.04.2023.

In the first stage of the study to determine the effectiveness of teaching the discipline "Fundamentals of organising and conducting tourism and local lore activities" through MOOC, we obtained students' answers to the defining control questions from the experimental and control groups.

In the second stage of the study we conducted the results of the formative experiment in each module after studying the 3rd module of the discipline "Fundamentals of organizing and conducting tourism and local history activities" through the MOOC of the experimental group. We received answers to the specially designed questions (via google forms) in the 3rd module from the participants of the forming experiment and the control group.

The aim of obtaining answers to these questions was to test the effectiveness of the specially developed tourist-regional methodology. During the formative experiment while testing the formation of the main structural elements of professional competence in tourism and local lore issues, the independently proposed methodology of training students in the educational programme "Geography" of pedagogical universities in tourism and local lore training was taken as a basis. After each stage of tourism and local lore activities the answers to the specially developed questions were obtained: they clearly show the content of tourism and local lore activities, the work of the systemic didactic principles, teaching-methodological and integration processes.



Figure 2. Research Flowchart (Source: compiled by the authors)

## RESULTS AND DISCUSSION

As a result of the study in the first stage, we received answers to the determining control questions aimed at determining the effectiveness of teaching the discipline "Fundamentals of organizing and conducting tourism and local lore activities" through MOOC from 3rd year students of the educational programme "Geography" of AIU and 2nd year students of the educational programme "Geography-History" of KNWTTU. Answers to the questions of the defining first stage from the control and experimental groups can be seen in Table 1 and figure 3 below.

In the second stage of the research, the first module of tourism and local lore training was conducted after the experimental group had studied the MOOC. The questions of the formative experiment were: concept of tourism and local lore activities, local lore component in geographical education, tourism component, target character of tourism and local lore activities, variety of forms, the most popular form of tourism and local lore competence formation-excursion. Answers to the questions developed in module 1 (via google forms) were received from the participants of the forming experiment and the control group (Table 2).

Table 1. Answers/results of defining questions (for module 3) (Source: compiled by the authors)

№ s/n	Modules	Group	Number of students	Nature of answers by level, %		
				High	Medium	Low
1.	Module 1: Issues developed for the module "Tourism and local lore as a science"	E	19	10.5	15.8	73.7
		C	14	7.1	21.4	71.5
2.	Module 2. Developed questions on the module "Tourist and local lore resources of the Republic of Kazakhstan"	E	19	15.8	21	63.2
		C	14	-	14.2	85.8
3.	Module 2. Questions developed on the module "Technology for organizing and conducting tourism and local lore activities".	E	19	5.2	10.5	84.3
		C	14	14.2	7.1	78.7
4.	<b>The result of the defining experiment</b>	<b>E</b>	<b>19</b>	<b>10.5</b>	<b>15.8</b>	<b>73.7</b>
		<b>C</b>	<b>14</b>	<b>7.1</b>	<b>14.2</b>	<b>78.7</b>

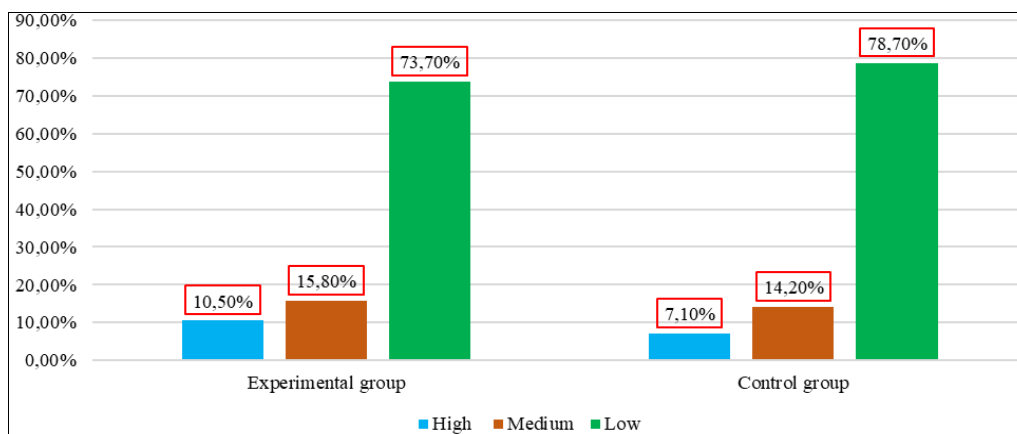


Figure 3. Comparison of answers to the defining questions (Source: compiled by the authors)

**Analysis of the result:**

- Students in the experimental and control groups have a predominant knowledge of the natural features of their native land. There is no (or insignificant) knowledge of the ethno-geography of the native land;
- The knowledge and skills of students in the control group in tourism and local lore activities were lower than those of students in the experimental group.

The effectiveness of implementing methodological ways of improving tourism and local lore training of future geography teachers became known through listening to the MOOC lectures.

Table 2. Answers/results of questions to determine the results of the formative experiment (in module 1 "Tourism and local lore as a science") (Source: compiled by the authors)

№ s/n	Module 1	Group	Number of students	Nature of answers by level, %		
				High	Medium	Low
1.	Lecture 1. Developed questions on "Concepts, essence and purpose of tourism and area studies"	E	19	47.4	52.6	-
		C	14	7.1	14.2	78.7
2.	Lecture 2. Developed questions on "the development and historical stages of local lore in Kazakhstan"	E	19	52.6	36.9	10.5
		C	14	14.2	21.4	64.4
3.	Lecture 3: Development of questions on "The place and role of excursions in the organisation of tourism and local lore activities"	E	19	26.3	68.4	5.3
		C	14	-	28.6	71.4
4.	<b>Result for the first module</b>	<b>E</b>	<b>19</b>	<b>42.1</b>	<b>52.6</b>	<b>5.3</b>
		<b>C</b>	<b>14</b>	<b>7.1</b>	<b>21.4</b>	<b>71.5</b>

Table 3. Answers to questions / results of the formative experiment (on module 2 "Tourism and local lore resources of the Republic of Kazakhstan") (Source: compiled by the authors)

№ s/n	Module 2	Group	Number of students	Nature of answers by level, %		
				High	Medium	Low
1.	Lecture 4. Developed questions on "Tourist and local lore objects of the East Kazakhstan economic region"	E	19	42.1	47.4	10.5
		C	14	28.6	35.7	35.7
2.	Lecture 5. Developed questions on "Tourist and local lore objects of the North-Kazakhstan economic region"	E	19	26.4	36.8	36.8
		C	14	14.2	21.4	64.4
3.	Lecture 6. Developed questions on "Tourist and local lore objects of the central economic region of Kazakhstan"	E	19	36.8	42.1	21.1
		C	14	21.4	21.4	57.2
4.	Lecture 7. Developed questions on "Tourist and local lore objects of the South-Kazakhstan economic region"	E	19	36.8	47.4	15.8
		C	14	14.2	28.6	57.2
5.	Lecture 8. Developed questions on "Tourist and local lore objects of the West Kazakhstan economic region".	E	19	42.1	36.8	21.1
		C	14	28.6	35.7	35.7
6.	<b>Result for the second module</b>	<b>E</b>	<b>19</b>	<b>36.8</b>	<b>42.1</b>	<b>21.1</b>
		<b>C</b>	<b>14</b>	<b>21.4</b>	<b>28.6</b>	<b>50</b>

The questions on the 2nd module of the forming experiment "Tourist and local lore resources of the Republic of Kazakhstan" are made on tourist local lore forms of the East Kazakhstan, North Kazakhstan, Central Kazakhstan, South Kazakhstan and West Kazakhstan economic regions, aimed at revealing and improving the quality of knowledge, local lore knowledge of students on the geography of their native land (Table 3).

Analysis of the result:

- Compared to the results of the defining question, the level of local history knowledge and skills of the students in the experimental group increased significantly;

- The students in the control group had an insignificant increase in knowledge and skills compared to the results of the defining questions at the initial stage;

- The number of students with high level of answers prevails in the experimental group, the control group is dominated by the average level of answers.

In this modular stage of local lore training for future geography teachers, we focused on the following tourism and local lore sites in economic areas:

- *East Kazakhstan Economic Region:* One-Minaret Mosque in Semey, monument to A.S. Pushkin, Shilikty Tsar's Mound, Katon-Karagai State National Nature Park, Tarbagatai State Zoological Reserve, Abai House of Education, Ahmet Riza Madrasah, Yamyshev Gate, F.M. Literary and Memorial Museum. Dostoevsky, building of local history museum (governor's house), Republican literary and memorial museum of Abay, building of local history museum (governor's house), Republican literary and memorial museum of Abay, building of Abay theatre, monument to victims of Semipalatinsk nuclear test site, memorial complex "Abay - Shakarim", monument "Enlik-Kebek", Shulba water reservoir, Borovlyansk pine forest, Alakol lake;

- *North Kazakhstan Economic Region:* Kokshetau and Bayanaul resorts, Korgalzhyn and Naurzum nature reserves, forests and lakes of the Kokshetau mountains, tourist and local lore sites in Astana: Baiterek, Independence Palace, Kazakh Yeli Monument, Nur Alem, Khan Shatyr shopping mall, Nurzhol Boulevard, Azret Sultan Mosque, Astana Opera Theatre, Astana Ballet Theatre, Barys Arena Sports Complex, Astana Arena Stadium, Alau Ice Rink;

- *Central Kazakhstan Economic Region:* Karaganda Museum of Fine Arts, Karaganda Academic Theatre of Musical Comedy, Karaganda Regional Central Mosque, Aksoran Kyzylaray Mountain, Kazakh Small Hills, Lake Balkhash, Ulytau, large mounds, burial grounds, mausoleums of Begazy Dandybai culture, stone symbols, petroglyphs, mines, copper, tin, silver, gold and metal smelting furnaces and other ancient monuments;

- *South Kazakhstan economic region:* Otrar city, Arystanbab mausoleum, Khizir tower, Khoja Ahmed Yasawi mausoleum, Pevica Kum natural monument, Charyn gorge, Altyn Emel national park, architectural mausoleums Aisha Bibi, Karakhan, Babadja Khatun, Aksu-Zhabagly reserve, Taukehan, Zhangirhan, Abylaihan, Kazybek Bi Museums, Kazygurt mountain, Zhanakorgan sanatorium, Kolsai lakes, Ile-Alatau national park, Almaty central museum, Shymkent central Akmeshit, Panfilov park, Koktobe, Alma-Arasan ski resort, Kokzhailau, Samal, Sauran, Sairam, Baikonur cosmodrome;

- *West Kazakhstan economic region:* Imangali mosque in Atyrau, Beket-Ata underground mosque, lake Shalkar, Budarinsk reserve, Irgiz-Turgay reserve, Mugalzhar mountain, Ustyurt reserve, Karakiya-Karakol reserve, Kendirli bay, Caspian Sea, Ural city, West Kazakhstan Regional Museum of Local Lore, Yemelyan Pugachev museum, Beshoky plateau, Inder mountain, Imankara cave, Sarayshyk ancient settlement excavations, Bozshyra gorge, Sherkala mountain, Karakiya depression.

The questions of the formative experiment, 3/1 were developed on the lecture materials of the 3rd module "Technology of organisation and conducting of tourist and local lore activities": the concept of a tourist route, standards and discharge requirements in tourism, stages of organisation and conducting of a tourist trip, formation of a route, choice of equipment, food and medical support during a trip, definition of a tourist route, cost estimate and documentation. The answers/results of the students' control questions on the technology of organising and conducting tourism and local lore activities at the end of the 3rd stage of systematic tourism and local lore learning during the formative experiment are presented in Table 4.

Table 4. Answers/results of the test questions of module 3 "Technology for organising and conducting tourism and local lore activities" (Source: compiled by the authors)

№ s/n	Module 3	Group	Number of students	Nature of answers by level, %		
				High	Medium	Low
1.	Lecture 9. Developed questions on "The concept of a tourist route"	E	19	21.1	42.1	36.8
		C	14	7.1	14.2	78.7
2.	Lecture 10. Developed questions on "Standards and category requirements in tourism"	E	19	10.5	36.8	52.7
		C	14	21.4	7.1	71.5
3.	Lecture 11. Developed questions on the topic "Stages of organising and conducting a tourist trip"	E	19	10.5	57.9	31.6
		C	14	21.4	14.2	64.4
4.	Lecture 12. Developed questions on the topic "Designing a route. Selection of equipment. Application of mobile GIS".	E	19	15.8	47.4	36.8
		C	14	14.2	21.4	64.4
5.	Lecture 13. Developed questions on "Nutrition and health care in camping"	E	19	10.5	52.7	36.8
		C	14	14.2	21.4	64.4
6	Lecture 14-15. Developed questions on the topic "Estimates of tourism itinerary. Documentation"	E	19	26.3	47.4	26.4
		C	14	7.1	7.1	85.8
7.	<b>Result for the third module</b>	<b>E</b>	<b>19</b>	<b>15.8</b>	<b>47.4</b>	<b>36.8</b>
		<b>C</b>	<b>14</b>	<b>14.2</b>	<b>14.2</b>	<b>71.6</b>

Table 5. Answers/results to the final questions of the formative phase (in module 3) (Source: compiled by the authors)

№ s/n	Modules	Group	Number of students	Nature of answers by level, %		
				High	Medium	Low
1.	Module 1: Issues developed for the module "Tourism and local lore as a science"	E	19	42.1	52.6	5.3
		C	14	7.1	21.4	71.5
2.	Module 2. Developed questions on the module "Tourist and local lore resources of the Republic of Kazakhstan"	E	19	36.8	42.1	21.1
		C	14	21.4	28.6	50
3.	Module 2. Questions developed on the module "Technology for organizing and conducting tourism and local lore activities".	E	19	15.8	47.4	36.8
		C	14	14.2	14.2	71.6
4.	<b>Result of the formative experiment</b>	E	<b>19</b>	<b>31.6</b>	<b>47.4</b>	<b>21</b>
		C	<b>14</b>	<b>14.2</b>	<b>21.4</b>	<b>64.4</b>

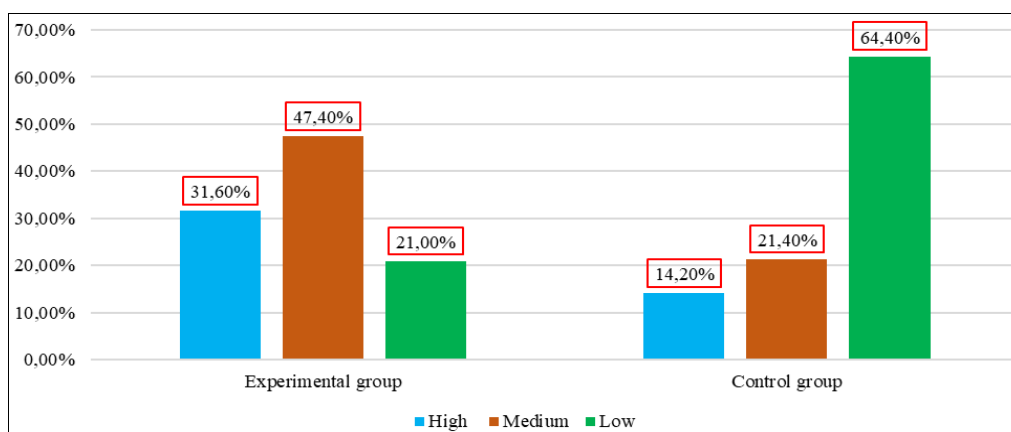


Figure 4. Results of the formative experiment (Source: compiled by the authors)

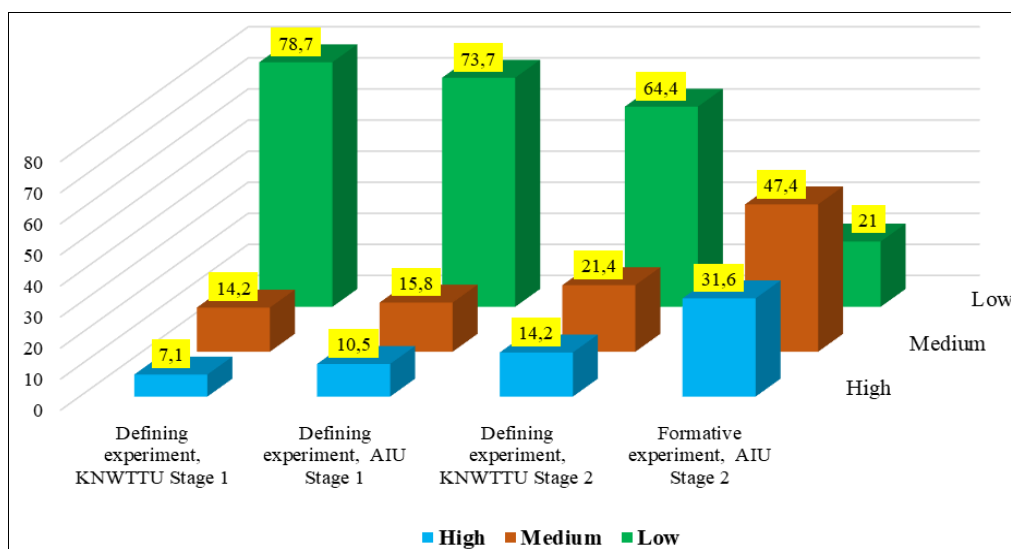


Figure 5. Comparison of the results of the defining and formative experiment (Source: compiled by the authors)

This stage of tourism and local lore competence formation for future geography teachers:

- *The concept of a tourist itinerary*: the pre-planned route of a tourist, the result of the design of a tourist activity, the technological documents, the season of the tourist, the itinerary, the duration, the methods, the content and the programme of sports and recreational activities, the classification of tourist itineraries and the classification of tourists by means of transport;

- *Standards and category requirements in tourism*: categories of difficulty of tourist trails, duration of a hike - trail, the main part of the trail, the established level of difficulty, requirements for the duration and length of the trail, categories of difficulty of cave tourism, categorisation of mixed trails, non-category tourist trails and trips, characteristics of non-category tourist trails and trips by difficulty, group composition, leader of a sports trip and requirements for the qualification of the tourist;

- *The stages of organising and conducting a hiking trip*: self-development of a hiking trip, components of organising and conducting a hiking trip, development of a planned hiking trip, formation and promotion of a tour and marking of hiking trips, ecological trails, development of a hiking trip, stages of developing a hiking trip, group formation, group tasks in a trip, determination of an area and type of trip, preparation of a hike and result of a trip and report on a hike;

- *Development of the route route. When selecting equipment, the following were taken into account:* types of hiking equipment, group general and special equipment, individual, general and special equipment, types of hiking equipment in a water trip, general (used in any type of trip and in any season) group equipment, general list of group accessories, general list of individual equipment and composition of repair kits in a water trip;

- *Nutrition and health care for the camping trip:* preparing a camping menu, stages of menu planning, daily ration, set of products, food list: amount, cost, menu for one camping day, calculation of food cost for 10 days, composition of first aid kit, set of injections and medicines, first aid;

- *Itinerary estimate. Documentation:* budget of a tourist trip, itinerary and route booklet, documents for a categorised trip, application to the search and rescue service, itinerary passport, cartographic material, tourist maps, mountain pass charts, river water obstacle charts, technical description of the trip, group activity, travel time, convenient overnight places, places and methods of insurance, technique of difficult parts of the water route, samples of normative documents, literature sources and report.

Thus, the second stage of the experiment on formation of tourism and local lore competence of future geography teachers is characterized by the revival of students' research work. The results of the research showed that systematic training of future geography teachers in tourism and local lore activities is one of the factors stimulating scientific research in the field of tourism and local lore activities in accordance with the curriculum.

However, the main factor contributing to the personal and professional development of future geography teachers is its implementation based on different methodological approaches (Kadyrbekova et al., 2019). The research devoted to the problems of future teachers' training does not sufficiently consider the possibilities of the competence approach in purposeful design of tourist and local lore activities, as a result of which the level of tourist and local lore competence formation in future geography teachers with deep knowledge of content, organizational forms, methods and technologies of its implementation can be increased, which confirms the need for theoretical substantiation and practical solution of this problem.

In the modern system of geographical education the implementation of tourism and local lore activities and the formation of a local image of the region remain one of the leading directions in the teaching of geography. Therefore, the formation of tourism and local lore competences in geography teacher training is aimed at introducing students to the basics of tourism and local lore, studying their own country and native land, equipping them with cognitive skills and abilities (Issakov et al., 2023b; Dávid et al., 2011). Also the most important strategic task of higher education today is the professional all-round development of the younger generation. Tourism and local lore activities are one of the most effective means of complex influence on the formation of their personality (El Archi et al., 2023b; Issakov et al., 2021). Here, thanks to the teacher's good judgement, the foundations of cultural education are formed: the moral, political, aesthetic, labour, physical, mental and psychological horizons of the pupils are broadened (Ayzhan et al., 2021).

At the same time, the defining values necessary for future geography teachers to carry out tourism and local lore work are: education, reliability, fairness, self-esteem, tolerance, creativity, interest in their work and professional experience (Zueva, 2017; Dávid, 2009). The model of preparing future geography teachers for tourism and local lore work on the basis of competence approach and its components is one of the main directions of geographical higher education reform and technology of tourism and local lore competence formation. In this regard, we believe that the development of students' value worldview, vision, feeling and understanding of the environment, orientation, personal self-improvement, knowledge assimilation will allow them to conduct tourism and local lore activities.

Moreover, it will be worth looking at scholars' views on cross-border activities at a later stage (Dávid et al., 2008; Dávid and Szűcs, 2009; Bujdosó, et. al., 2011; Bujdosó et al., 2015; Herman et al., 2020).

Tourism and local lore - the ability to acquire cognitive activity, knowledge and research skills in the field of tourism and local lore, as a personal characteristic that combines important qualitative characteristics, the manifestation of purposeful cognitive activity of students to study the territory of their native land (Duda-Gromada 2010, Dávid et al., 2012a; Dávid et al., 2012b; Gadzhiev, 2021). Formation of future geography teacher's motivation to organize tourism and local lore activities using mobile GIS - applications; importance of personal motives for increasing the value of his/her mobile GIS applications and quality of training in tourism and local lore activities; value of student geographer's attitude to conducting scientific research, which allows creative approach to solving educational tasks and improving the educational process (Issakov et al., 2022; Beták et al., 2023).

In addition, the possibilities and effectiveness of using the Eduardo platform in the teaching of MOOC lessons were identified based on the results of teaching the discipline "Fundamentals of organising and conducting tourism and local lore activities" through MOOC. Existing research has also identified different aspects of students' participation in MOOC, such as behavioural participation (Moskal et al., 2015) and emotional and social involvement (Daniels et al., 2016). Correlational studies have also examined the relationship between key factors associated with participation and learning, such as course completion and attainment (Xiong et al., 2015; de Barba et al., 2016).

The application of local lore activities also contributes to regional competitiveness and maintain cultural heritages (Dávid, et al. 2003; Dávid, 2004; Dávid et al., 2007; Bujdosó and Dávid, 2013; Deac, et al. 2019). However, there is no consensus on how to formulate and measure student participation in MOOCs. Differences in the formulation and practical application of student participation in MOOCs make it difficult to compare the results of different studies and to draw conclusions about the preconditions and effects of participation in MOOCs (Deng et al., 2019). However, student participation in a MOOC can be seen as a diagnostic tool to provide general feedback to teachers.



## CONCLUSIONS

The rapid development and integration of innovative technologies have brought about a significant shift in the educational landscape. MOOCs, with their flexible accessibility and diverse learning opportunities, have emerged as a pioneering approach in tourism education, reshaping the way students learn and teachers interact with their learners. As the prevalence of MOOCs continues to expand, their impact on global education is likely to be increasingly transformative and influential. This study aimed to investigate the effectiveness of utilizing Massive Open Online Courses (MOOCs) to teach the discipline "Fundamentals of Organising and Conducting Tourism and Local Lore Activities" to Geography students in Kazakhstan's higher education institutions. The findings of this research shed light on the potential benefits and implications of incorporating MOOCs into the geography education system.

Firstly, the study highlighted the cost-effectiveness and flexibility of MOOCs, which offer specialized courses either free of charge or at a nominal fee. The preference for digital learning modules over traditional ones indicates a shift towards embracing innovative technologies in tourism education, making MOOCs an attractive option for learners seeking accessible and self-paced learning opportunities.

Secondly, the structural model of training through MOOCs emerged as a comprehensive approach to developing tourism and local lore competences among future geography teachers. By encompassing the formation of mental abilities, advanced knowledge in tourism and local lore, preparation for research activities, and the ability for professional development in tourism and local lore practice, MOOCs offer a holistic and well-structured learning experience.

Thirdly, the experimental methodology used in teaching the "Fundamentals of Organising and Conducting Tourism and Local Lore Activities" through MOOCs demonstrated its effectiveness as an educational tool. The significant improvement observed in the experimental group's performance compared to the control group underscores the value of incorporating MOOCs into the teaching process to enhance students' learning outcomes.

Lastly, teaching tourism and local lore through MOOCs not only enriches students' cognitive abilities and knowledge but also fosters the development of essential personal qualities. This integration of cognitive activity, research skills, and important qualitative characteristics contributes to the comprehensive growth of future geography teachers, preparing them to become competent professionals in organizing and conducting tourism and local lore activities.

This study has provided valuable insights into the potential benefits of using MOOCs for teaching tourism and local lore to Geography students. By embracing digital learning technologies and exploring the effectiveness of MOOCs, Kazakhstan's higher education institutions can prepare future geography teachers with the necessary knowledge, skills, and competences for organizing and conducting tourism and local lore activities effectively. As the landscape of education continues to evolve, this research contributes to the broader understanding of leveraging technology for educational advancement and showcases the importance of continual exploration and integration of innovative teaching approaches.

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## REFERENCES

- Abisheva, Z.M., & Abdreeva S.T. (2019). *Туристтік өлке тану жұмыстарының негіздері [Fundamentals of tourist local history work]*. Kazakh University, Almaty, 2019, 122. (In Kazakh). <https://pps.kaznu.kz/en/Main/FileShow2/162178/1/213/0/>
- Altalhi, M. (2021). Toward a model for acceptance of MOOCs in higher education: The modified UTAUT model for Saudi Arabia. *Education and Information Technologies*, 26, 1589-1605. <https://doi.org/10.1007/s10639-020-10317-x>
- Annaraud, K., & Singh, D. (2017). Perceptions of hospitality faculty and students of massive open online courses (MOOCs). *Journal of Hospitality & Tourism Education*, 29(2), 82-90. <https://doi.org/10.1080/10963758.2017.1297714>
- Ayzhan, S., Kulyash, K., Kulash, M., Zabira, M., Yerlan, I., & Nurbol, U. (2021). Teaching and Learning foundation of the elective course "Cultural Geography". *World Journal on Educational Technology: Current Issues*, 13(4), 1040–1050. <https://doi.org/10.18844/wjet.v13i4.6297>
- Bárcena, E. & Martín-Monje, E. (2014). Introduction. Language MOOCs: an emerging field. *Language MOOCs: Providing learning, transcending boundaries*, 1-15.

- Batyrbekov, N., Imangulova, T., Gubarenko, A., Abdikarimova, M., & Yessimova, D. (2022). Promising Directions for the Development of Sports Tourism in the Almaty Region using the Example of Rock Climbing. *GeoJournal of Tourism and Geosites*, 44(4), 1418–1426. <https://doi.org/10.30892/gtg.44429-961>
- Benedyuk, V.V. (1999). *Организация краеведческой работы учащихся в процессе изучения физической географии основной школы (V – IX классы) [Organization of local history work of students in the study of physical geography of the basic school (V - IX grades)]*. Diss. thesis., Candidate of Pedagogical Sciences, Kyiv, p. 154, (In Russian).
- Berdenov, Z., Mendybayev, E., Beketova, A., Satkarova, N., & Gozner, M. (2021). Assessment of the Southern Urals recreational potential for the development of the Aktobe tourism industry. *GeoJournal of Tourism and Geosites*, 38(4), 1274–1279. <https://doi.org/10.30892/gtg.38435-769>
- Beták, N., Csapó, J., Horváth, Á., & Dávid, L.D. (2023). Virtual tour as a virtual experience of destination management organisations in Slovakia. *GeoJournal of Tourism and Geosites*, 47(2), 508-514. <https://doi.org/10.30892/gtg.47218-1050>
- Braslavska, O., & Roghi, I. (2019). Interactions and hierarchies of the component composition of local lore competence of future geography teachers. *Paradigms of the Modern Educational Process: Opportunities and Challenges for Society (1st ed.)*, Primedia eLaunch LLC, USA.
- Bujdosó, Z., & Dávid, L. (2013). Extreme sports and other activities in tourism with special regard to the Mátra Mountain. *Journal of Physical Education and Sport*, 13(1), 39-45. <https://doi.org/10.7752/jpes.2013.01007>
- Bujdosó, Z., Dávid, L., Remenyik, B., & Tóth, G. (2011). Connection between tourism and regional development on the Hungarian-Croatian border. *Central European Regional Policy and Human Geography*, 1(2), 27-40.
- Bujdosó, Z., Dávid, L., Varga, D., Péntzes, J., Gyurkó, Á., & Altynbek, Z. (2015). Tourism development and cross-border cooperation in the Hungarian-Romanian border region. *GeoJournal of Tourism and Geosites*, 16(2), 153-163. <http://gtg.webhost.uoradea.ro/PDF/GTG-2-2015/GTG-2-2015.pdf>
- Cheng, Y., Zhu, K., Zhou, Q., El Archi, Y., Kabil, M., Remenyik, B., & Dávid, L.D. (2023). Tourism Ecological Efficiency and Sustainable Development in the Hanjiang River Basin: A Super-Efficiency Slacks-Based Measure Model Study. *Sustainability*, 15(7). <https://doi.org/10.3390/su15076159>
- Chowdhury, F. (2020). Blended learning: How to flip the classroom at HEIs in Bangladesh?. *Journal of Research in Innovative Teaching & Learning*, 13(2), 228–242. <https://doi.org/10.1108/JRIT-12-2018-0030>
- Cook, M. (2016). State of the MOOC 2016: A year of massive landscape change for massive open online courses. *Online Course Report*. Retrieved from <http://bit.ly/2qZbn1i>
- Daniels, L.M., Adams, C., & McCaffrey, A. (2016). *Emotional and social engagement in a Massive Open Online Course: An examination of Dino 101*. In M. P. McCreery (Ed.), *EMotions, technology, and learning* (pp. 25–41). San Diego, CA: Academic Press.
- Dávid, L. (2004). *A Vásárhelyi Terv turisztikai lehetőségei [Tourism opportunities of the Vásárhely Plan]*, *Gazdálkodás* (9), 86-94 (In Hungarian)
- Dávid, L., Bujdosó Z. & Tóth G. (2008). *Tourism planning in the Hajdú-Bihar – Bihar Euroregion*. In: Süli-Zakar, I. (Ed.) *Neighbours and partners: on the two sides of the border*, Debrecen, Magyarország, Kossuth Egyetemi Kiadó, 402 p., 323-332.
- Dávid, L. (2009). Environmental Impacts of Events. In Raj, R. & James, M. (Eds.): *Event Management and Sustainability*, 66-75. CABI, Wallingford, UK.
- Dávid, L., & Szűcs, C. (2009). Building of networking, clusters and regions for tourism in the Carpathian Basin via information and communication technologies. *NETCOM - Networks and Communications Studies*, 23(1-2), 63-74.
- Dávid, L., Bujdosó, Z., & Patkós, C. (2003). *A turizmus hatásai és jelentősége a területfejlesztésben. [The impact and importance of tourism in territorial development]* 433-453, (In Hungarian).
- Dávid, L., Tóth, G., Bujdosó, Z., & Remenyik, B. (2011). The role of tourism in the development of border regions in Hungary. *Romanian Journal of Economics*, 32(2), 109-124.
- Dávid, L., Vargáné, C.K., Kovács, G., & Vasa, L. (2012a). *Turizmusökológia: zöldülő turizmus-fenntartható turizmusfejlesztés [Tourism ecology: greening tourism-sustainable tourism development]*, Szaktudás Kiadó, Budapest, Hungary, 236, (In Hungarian).
- Dávid, L., Bujdosó Z., Patkós Cs. & Tuohino, A. (2012b). Lake Tourism and Global Climate Change: An integrative approach based on Finnish and Hungarian case-studies. *Carpathian Journal of Earth and Environmental Sciences*, 7, 121-136.
- Dávid, L., Herneczky, A., & Tóth, G. (2007). *A turizmus és a regionális versenyképesség kapcsolatának mutatói a Mátravidék példáján keresztül [Indicators of the relationship between tourism and regional competitiveness through the example of the Mátravidék]*, *Eszak-magyarországi Stratégiai Füzetek*, 4, 3-20. (In Hungarian).
- de Barba, P. G., Kennedy, G.E., & Ainley, M.D. (2016). The role of students' motivation and participation in predicting performance in a MOOC. *Journal of Computer Assisted Learning*, 32(3), 218–231. <https://doi.org/10.1111/jcal.12130>
- Deale, C.S. (2015). An exploratory study of hospitality and tourism educators' use and perceptions of MOOCs. *Journal of Teaching in Travel & Tourism*, 15(2), 150-165. <https://doi.org/10.1080/15313220.2015.1026470>
- Demeuov, A., Mazbayev, O., Aukenova, G., Kholoshyn, I., & Varfolomyeyeva, I. (2021). Pedagogical possibilities of tourist and local history activities. *E3S Web of Conferences*, 280, 11011. <https://doi.org/10.1051/e3sconf/202128011011>
- Deac, L.A., Gozner, M., & Sambou, A. (2019). Ethnographic museums in the rural areas of Crişana Region, Romania –Keepers of local heritage, tradition and lifestyle. *GeoJournal of Tourism and Geosites*, 27(4), 1251–1260. <https://doi.org/10.30892/gtg.27411-430>
- Deng, R., Benckendorff, P., & Gannaway, D. (2019). Progress and new directions for teaching and learning in MOOCs. *Computers & Education*, 129, 48–60. <https://doi.org/10.1016/j.compedu.2018.10.019>
- Diver, P., & Martinez, I. (2015). MOOCs as a massive research laboratory: Opportunities and challenges. *Distance Education*, 36(1), 5–25. <https://doi.org/10.1080/01587919.2015.1019968>
- Duda-Gromada, K., Bujdosó, Z., & Dávid, L. (2010). Lakes, reservoirs and regional development through some examples in Poland and Hungary. *GeoJournal of Tourism and Geosites*, 5 (1), 16-23.
- El Archi, Y., Benbba, B., Kai, Z., El Andaloussi, Z., László, P., & Dávid, L.D. (2023a). Mapping the Nexus between Sustainability and Digitalization in Tourist Destinations: A Bibliometric Analysis. *Sustainability*, 15 (12), 9717. <https://doi.org/10.3390/su15129717>
- El Archi, Y., Benbba, B., Nizammatdinova, Z., Issakov, Y., Vargáné, G.I., & Dávid, L.D. (2023b). Systematic Literature Review Analysing Smart Tourism Destinations in Context of Sustainable Development: Current Applications and Future Directions. *Sustainability*, 15(6), 5086. <https://doi.org/10.3390/su15065086>
- Gadzhiev, E.E.M. (2021). Local history and museology in Dagestan: trends and prospects of interrelated development. *MUzeológia*, 99. <https://www.cecol.com/search/article-detail?id=1007625>

- Golovanov, R.V. (2008). *Развитие социального партнерства в системе дополнительного образования туристско-краеведческого профиля [Development of social partnership in the system of additional education in tourism and local history profile]*. Diss. thesis., Candidate of Pedagogical Sciences, Kazan, p. 211, (In Russian).
- Goopio, J., & Cheung, C. (2021). The MOOC dropout phenomenon and retention strategies. *Journal of Teaching in Travel & Tourism*, 21(2), 177-197. <https://doi.org/10.1080/15313220.2020.1809050>
- Gozner, M., Tătar C.F., & Ivanovski, Z. (2021). The caves from the Bihor, Vlădeasa and Pădurea Craiului Mountains between protection and capitalization. Modern Technologies for the 3rd Millennium, Oradea (Romania). <http://www.edlearning.it/proceedings/moreinfo/20211209.htm>
- Herman, G.V., Caciora, T., Dorina, C.I., Ilies, A., Deac, A., Sturza, A., Sonko, S.M., Suba, N.S., & Nistor, S. (2020). 3D Modeling of the Cultural Heritage: Between Opportunity and Necessity. *Journal of Applied Engineering Sciences*, 10(1), 27-30. <https://doi.org/10.2478/jaes-2020-0005>
- Herman, G.V., Grama, V., Ilies, A., Safarov, B., Ilieș, D.C., Josan, I., Buzrukova, M., Janzakov, B., Privitera, D., & Dehooorne, O. (2023). The Relationship between Motivation and the Role of the Night of the Museums Event: Case Study in Oradea Municipality, Romania. *Sustainability*, 15(2), 1738. <https://doi.org/10.3390/su15021738>
- Hew, K.F., & Cheung, W.S. (2014). Students' and instructors' use of massive open online courses (MOOCs): Motivations and challenges. *Educational Research Review*, 12, 45-58. <https://doi.org/10.1016/j.edurev.2014.05.001>
- Honcharuk, V., Rozhi, I., Dutchak, O., Poplavskiy, M., Rybinska, Y., & Horbatiuk, N. (2021). Training of Future Geography Teachers to Local Lore and Tourist Work on the Basis of Competence Approach. *Revista Romaneasca Pentru Educatie Multidimensionala*, 13(3), 429-447. <https://doi.org/10.18662/rrem/13.3/460>
- Hone, K.S., & El Said, G.R. (2016). Exploring the factors affecting MOOC retention: A survey study. *Computers & Education*, 98, 157-168. <https://doi.org/10.1016/j.compedu.2016.03.016>
- Hood, N., Littlejohn, A., & Milligan, C. (2015). Context counts: How learners' contexts influence learning in a MOOC. *Computers & Education*, 91, 83-91. <https://doi.org/10.1016/j.compedu.2015.10.019>
- Hsu, C.H. (2018). Tourism education on and beyond the horizon. *Tourism Management Perspectives*, 25, 181-183. <https://doi.org/10.1016/j.tmp.2017.11.022>
- Ilieș, D.C., Marcu, F., Caciora, T., Indrie, L., Ilieș, A., Albu, A., Costea, M., Burtă, L., Baias, Ș., & Ilieș, M. (2021). Investigations of Museum Indoor Microclimate and Air Quality. Case Study from Romania. *Atmosphere*, 12, 286. <https://doi.org/10.3390/atmos12020286>
- Issakov, Y., Imanbekova, B., Beisembinova, A., Moldgaliyeva, A., Abisheva, Z., Ussenov, N., & Dávid, L. (2023b). Study of the effectiveness of tourism and local lore activities of geography teachers in Kazakhstan. *GeoJournal of Tourism and Geosites*, 48(2spl), 741-750. <https://doi.org/10.30892/gtg.482spl08-1074>
- Issakov, Y., Kamelkhan, G., Imanbekova, B., Zhoya, K., Zheldibayev, A., Molzhigitova, D., & Dávid, L.D. (2023a). Study of the Problems and Prospects of Small Tourism Business Development in the City of Almaty. *GeoJournal of Tourism and Geosites*, 46(1), 293-303. <https://doi.org/10.30892/gtg.46133-1027>
- Issakov, Y., Laiskhanov, S., Mazbayev, O., Ussenov, N., Zheldibayev, A., Kamelkhan, G., & Dávid, L.D. (2022). Opportunities to use mobile GIS applications in the formation of tourist and local lore competencies in students: case study in Almaty, Kazakhstan. *GeoJournal of Tourism and Geosites*, 41(2), 597-605. <https://doi.org/10.30892/gtg.41234-868>
- Issakov, Y.D., Mazbayev, O.B., & Laiskhanov, S.U. (2021). *География білім беру бағдарламасы студенттерінің туристік-өлкетану құзыретін қалыптастырудың теориялық негіздері [Theoretical foundations of the formation of tourist and local lore competencies of students of the Geography educational program]*. Bulletin of the Abai Kazakh National Pedagogical University. Series of pedagogy and psychology, № 3(48), 31-38, (In Kazakh). <https://doi.org/10.51889/2021-3.2077-6861.04>
- Ivleva, N.V. (2006). *Туристско-краеведческая деятельность как средство формирования нравственной личности школьников [Tourist and local history activities as a means of shaping the moral personality of schoolchildren]*. Autoreferree, Candidate of Pedagogical Sciences, Almaty, p. 24, (In Russian).
- Jackson, N. (2013). *On MOOCs and some futures for higher education*. Retrieved from <http://noelbjackson.wordpress.com/2013/06/01/on-moocs-and-some-possiblefutures-forhigher-ed/> .
- Jo, D. (2018). *Exploring the Determinants of MOOCs continuance intention*. KSII Transactions on Internet and Information Systems (TIIS), 12(8), 3992-4005.
- Kadyrbekova, D.S., Imangulova T.V., & Omarov, K.M. (2019). *Туризм саласындағы мамандарды дайындауда «Жетісу өлкетануы» пәнін оқытуда инновациялық технологияларды қолдану [The use of innovative technologies in teaching the discipline "Zhetysu local history" in the training of specialists in the field of Tourism]*. Bulletin of Abai KazNPU series "History and Political and Social Sciences", 1 (60), 448-450, (In Kazakh). [http://sp.kaznpu.kz/docs/jurnal\\_file/file20210109112547.pdf](http://sp.kaznpu.kz/docs/jurnal_file/file20210109112547.pdf)
- Kala, D., & Chaubey, D.S. (2023). Examination of relationships among technology acceptance, student engagement, and perceived learning on tourism-related MOOCs. *Journal of Teaching in Travel & Tourism*, 1-18. <https://doi.org/10.1080/15313220.2022.2038342>
- Kaplan, A.M., & Haenlein, M. (2016). Higher education and the digital revolution: About MOOCs, SPOCs, social media, and the cookie monster. *Business Horizons*, 59(4), 441-450. <https://doi.org/10.1016/j.bushor.2016.03.008>
- Kolowich, S. (2013). The professors who make the MOOCs. *The Chronicle of Higher Education*, 18, 1-12.
- Kong, A. (2022). *Understanding MOOC Learners from Different Levels of Study: An Investigation of Hospitality and Tourism*. In 2022 IEEE Learning with MOOCs (LWMOOCs), 90-95, IEEE. <https://doi.org/10.1109/LWMOOCs53067.2022.9927928>
- Konstantinov, Y.S. (2003). *Теория и практика туристско-краеведческой деятельности учащихся в системе дополнительного образования [Theory and practice of tourism and local history activities of students in the system of additional education]*. Diss. thesis., Candidate of Pedagogical Sciences, Moscow, p. 325, (In Russian).
- Lee, J. (2020). Designing an Inquiry-based Fieldwork Project for Students Using Mobile Technology and Its Effects on Students' Experience. *Review of International Geographical Education (RIGEO)*, 10 (1), 14-39. <https://doi.org/10.33403/rigeo.637666>
- Lin, J., & Cantoni, L. (2017). Assessing the Performance of a Tourism MOOC Using the Kirkpatrick Model: A Supplier's Point of View. In: Schegg, R., Stangl, B. (eds) *Information and Communication Technologies in Tourism 2017*. Springer, Cham. [https://doi.org/10.1007/978-3-319-51168-9\\_10](https://doi.org/10.1007/978-3-319-51168-9_10)
- Maslova, T.A., Akimova, E.A., & Romanov, V.A. (2020). Preparation of future teachers for tourism and local history activities. *In SHS Web of Conferences (Vol. 87, p. 00056)*. EDP Sciences. <https://doi.org/10.1051/shsconf/20208700056>

- Mazbayev, O.V. (1993). *Подготовка будущих учителей к руководству туристско - краеведческой деятельностью со школьниками [Preparing future teachers to lead tourism and local history activities with schoolchildren]*. Autoreferee, Candidate of Pedagogical Sciences, Almaty, p. 24, (In Russian).
- Melnyk, N., Bidiyuk, N., Kalenskiy, A., Maksymchuk, B., Bakhmat, N., Matviienko, O., & Maksymchuk, I. (2019). Models and organizational characteristics of preschool teachers' professional training in some EU countries and Ukraine. *Proceedings of the Institute of Pedagogical Research*, 51(1). – P.46-93. <https://ipisr.org.rs/images/pdf/zbornik-51/Natalija-Meljnik.pdf>
- Moskal, P., Thompson, K., & Futch, L. (2015). Enrollment, engagement, and satisfaction in the BlendKit faculty development open, online course. *Online Learning*, 19(4), 1–12. <https://files.eric.ed.gov/fulltext/EJ1079573.pdf>
- Murphy, J., Kalbaska, N., Horton-Tognazzini, L., Cantoni, L. (2015). Online Learning and MOOCs: A Framework Proposal. In: Tussyadiah, I., Inversini, A. (eds) *Information and Communication Technologies in Tourism 2015*. Springer, Cham. [https://doi.org/10.1007/978-3-319-14343-9\\_61](https://doi.org/10.1007/978-3-319-14343-9_61)
- Ogotu, H., El Archi, Y., & Dénes Dávid, L. (2023). Current trends in sustainable organization management: A bibliometric analysis. *Oeconomia Copernicana*, 14(1), 11–45. <https://doi.org/10.24136/oc.2023.001>
- Omarov, K.M. (2008). *Оқушылардың туристік іс-әрекеттерінде қазақ ұлттық ойындарын пайдалану [Use of Kazakh National Games in tourist activities of schoolchildren]*. Autoreferee, Candidate of Pedagogical Sciences, Almaty, p. 23, (In Kazakh).
- Ossiannilsson, E., Altinay, F., & Altinay, Z. (2016). MOOCs as change agents to boost innovation in higher education learning arenas. *Education Sciences*, 6(3), 25. <https://doi.org/10.3390/educsci6030025>
- Ozerov, A.G. (2021). *Краеведение. Методические аспекты [Local lore. Methodological aspects]*. Young Local Historian LLC, Moscow, Russia, p. 232, (In Russian).
- Pappano, L. (2012). Year of the MOOC. Retrieved from the New York Times Web site: <http://www.nytimes.com/2012/11/04/education/edlife/massive-open-online-courses-are-multiplying-at-a-rapid-pace.html>
- Polishchuk, E., Bujdosó, Z., El Archi, Y., Benbba, B., Zhu, K., & Dávid, L.D. (2023). The Theoretical Background of Virtual Reality and Its Implications for the Tourism Industry. *Sustainability*, 15 (13), 10534. <https://doi.org/10.3390/su151310534>
- QS. (2016). Are MOOCs becoming more important?. <https://www.qs.com/are-moocs-becoming-moreimportant/>
- Rozhi, I., Humenyuk, H., Fomin, M., Moskalenko, M., Pologovska, I., & Shchabelska, V. (2022). An Integral Model of Training of Future Teacher of Geography for the Local History and Tourism Work on the Basis of Competence Approach. A Proposal for Transitional Forms of Education. *Revista Romaneasca pentru Educatie Multidimensionala*, 14(3), 363-391. <https://doi.org/10.18662/rrem/14.3/614>
- Rozhi, I., Moskalenko, M., Moskvichova, O., Babenko, L., Nosachenko, V., & Hariunova, Y. (2023). Tourism Local Lore in the Modern System of Education. *Revista Romaneasca pentru Educatie Multidimensionala*, 15(1), 159-175. <https://doi.org/10.18662/rrem/15.1/691>
- Sadykov, J.A., & Gizzatzhanova, A.G. (2022). *Туристтік әлқетану [Tourist local lore]*. ESPI, Almaty, p. 252, (In Kazakh).
- Sebastian, M., & De Miguel, R. (2017). Geographical education 2020: Iberpix and Collector for ArcGIS as teaching resources for spatial learning. *Didáctica Geográfica*, (18). <https://didacticageografica.age-geografia.es/index.php/didacticageografica/article/view/402>
- Serikova, N.U. (2009). *Оқушыларды туристік-әлқетану іс-әрекеттері арқылы қазақстандық патриотизмге тәрбиелеу [Education of students of Kazakhstan patriotism through tourist and local history activities]*. Diss. thesis., Candidate of Pedagogical Sciences, Almaty, p. 160, (In Kazakh).
- Sharma, S., Vaidya, A., & Deepika, K. (2022). Effectiveness and satisfaction of technology-mediated learning during global crisis: Understanding the role of pre-developed videos. *On the Horizon: The International Journal of Learning Futures*, 30(1), 28–43. <https://doi.org/10.1108/OTH-04-2021-0057>
- Smirnov, D.V. (2012). *Система дополнительного профессионального туристско-краеведческого образования педагога на основе кластерного подхода [The system of additional professional tourism and local history education teacher based on the cluster approach]*. Diss. thesis., Doctor of Pedagogical Sciences, Shuya, p. 599, (In Russian).
- Soares, F., Lopes, A.P., & Vieira, I. (2015). Behind video lectures in a MOOC. In *Inted2015 Proceedings*, 435-440, IATED. <https://library.iated.org/view/SOARES2015BEH>
- Veletsianos, G., Collier, A., & Schneider, E. (2015). Digging deeper into learners' experiences in MOOC s: Participation in social networks outside of MOOC s, notetaking and contexts surrounding content consumption. *British Journal of Educational Technology*, 46(3), 570–587. <https://doi.org/10.1111/bjet.12297>
- Vukolov, V.N., & Nazarchuk, M.K. (1997). *Основы туристско-краеведческой работы [Basics of tourist and local lore work]*. Алматы, 98, (In Russian).
- Wang, X., Van Elzaker, C.P., & Kraak, M.J. (2017). Conceptual design of a mobile application for geography fieldwork learning. *ISPRS International Journal of Geo-Information*, 6(11), 355. <https://doi.org/10.3390/ijgi6110355>
- Wieser, D., & Seeler, J.M. (2018). *Online, not distance education: The merits of collaborative learning in online education*. In *The disruptive power of online education*, 125–146, Emerald Publishing Limited.
- Xiao, C., Qiu, H., & Cheng, S.M. (2019). Challenges and opportunities for effective assessments within a quality assurance framework for MOOCs. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 24, 1-16. <https://doi.org/10.1016/j.jhlste.2018.10.005>
- Xiong, Y., Li, H., Kornhaber, M. L., Suen, H.K., Pursel, B., & Goins, D.D. (2015). Examining the relations among student motivation, engagement, and retention in a MOOC: A structural equation modeling approach. *Global Education Review*, 2(3), 23–33. <https://files.eric.ed.gov/fulltext/EJ1074099.pdf>
- Yarmakeev, I.E., Pimenova, T.S., & Zamaletdinova, G.R. (2016). Teaching Local Lore in EFL Class: New Approaches. *International Journal of Environmental and Science Education*, 11(6), 1213-1221. <https://doi.org/10.12973/ijese.2016.391a>
- Zueva, O.V. (2017). *Краеведение и туризм Самарской области [Local history and tourism of Samara region]*. Samara University Press, Samara, 76, (In Russian). <https://f.eruditor.one/file/2520058/?ysclid=lhmuap8bs707266062>
- \*\*\* Resolution of the Government of the Republic of Kazakhstan dated May 31, 2019 No. 360 on approval of the state program for the development of the tourism industry of the Republic of Kazakhstan for 2019-2025 (In Kazakh).