Modernity and Tradition - Outdoor Games Promoting Cultural Heritage

Submitted 10/12/21, 1st revision 17/01/22, 2nd revision 10/02/22, accepted 01/03/22

Barbara Osóch1

Abstract:

Purpose: The aim of the article is to present outdoor games as the most universal and innovative way of discovering heritage (testimony of the life of our ancestors), which not only serves to create tourism and alternative forms of outdoor tourism and recreation, but can be successfully used for educational or cultural purposes, constituting replacement for globalized mass tourism.

Design/Methodology/Approach: The following research methods were used in the article: forsight (Delphi method), inventory and scoping review.

Findings: Outdoor games are a modern form of sightseeing, discovering and learning about heritage. They gained popularity in the USA, and in Europe they are still gaining popularity. An ideal way to spend leisure time individually or in a group. An irreplaceable opportunity to participate in the culture of the region at the time necessary for the application of restrictions.

Practical Implications: The research results can be used for promotional purposes, incl. institutions supporting the development of tourism in the region, promoting national heritage as an element of world cultural heritage or social movements and non-governmental organizations, as well as for educational purposes by educational institutions.

Originality/Value: Focus on innovative way of presenting and interpreting tangible and intangible heritage. Application of foreseight (qualitative) methods for the quantification and evaluation of outdoor games. Initiating primary statistical research and research in this type of sightseeing activity.

Keywords: Outdoor games, cultural heritage, heritage tourism, alternative tourism, individual tourism.

JEL Clasification: Z32.

Paper type: Study research.

Aknowledgments: The project is financed within the framework of the program of the Minister of Science and Higher Education under the name "Regional Excellence Initiative" in the years 2019 – 2022; project number 001/RID/2018/19; the amount of financing PLN 10,684,000.00.

¹University of Szczecin, Institute of Spatial Management and Socio-Economic Geography, Mickiewicza 64, 71-101 Szczecin, Poland, ORCID: 0000-0002-8364-7904, e-mail: barbara.osoch@usz.edu.pl;

1. Introduction

The present day caused changes in preferences in terms of participation in tourism, in the choice of rest, slowing down the phenomenon of mass tourism in favor of the development of individual tourism, enabling contact with nature, rest and regeneration in the nature, held in small groups, with family and friends (UNWTO, 2020). This, in turn, sparked a wave of searches for alternative forms of recreation, discovery and learning about unique places, people, their culture, traditions and monuments, the so-called tourism off the beaten track (Gentin, 2011). This means visiting attractive, but less popular and so far less frequented places. It is also an alternative way of visiting crowded destinations, such as large city centers (Turystyka, 2020).

Moving with the times, new electronic equipment is also being used, contributing to the evolution of outdoor games. The outdoor team games, known for centuries, gain a new image. They become attractive forms of contemporary tourism in areas of high cultural and natural values. They are a combination of sightseeing, regional education, active recreation and promotion of cultural and natural heritage (Tzima, 2021; Gómez-Ruiz, 2021). They attract with their attractive form, ease of organization and the ability to adapt to the needs of diverse recipients – youth, seniors, puzzles enthusiasts. Outdoor games are also a fun way to learn and gain experience, as well as an opportunity to establish cooperation with an environment outside your everyday environment (Laatoa, 2020). They are also a perfect idea for an afternoon with a family. Playing in the open air is a good solution for arranging free time (Gołoś, 2013).

It can take place in a location independent of residence, in the city center, away from the urban agglomeration, in the countryside, park and forest vicinity. It allows you to completely break away from everyday life, focus on gameplay, fun and cooperation. The emotions accompanying the game concern not only the need to find all the clues left on the route, but also the need to meet the challenges that were thrown during the game.

Reversing the situation, it is cultural heritage that is one of the areas where it is possible to use the game as an approach to learning and getting to know the area (Malegiannakia, 2017). The heritage of the region is not only its culture, history, traditions, architecture, nature, but everything that is specific to a given place and is a common value and a reason for pride of its inhabitants, e.g., a recipe for a unique jam made of rosehip petals, an old manor house with a lime and plane tree alley, an old forest, a waterfall or a salt cave. Cultural heritage games are different from other educational games because they additionally aim to preserve, reproduce and appreciate cultural content (Laamarti, 2014) that can be intangible or tangible (Mortara *et al.*, 2014).

Travelers are currently looking for destinations that delight with natural values, enabling active recreation, hiking, cycling routes, attractions for the whole family or cuisine, recognized in literature under the common name of cultural tourism or heritage tourism (Mikos von Rohrscheidt, 2008; yu Park, 2010; Allen *et al.*, 2015). A survey conducted among Polish tourists indicates that under the influence of the pandemic, interest in less popular places has increased, and outdoor games are a response to the needs of modern tourists.

2. Materials

The following is a review of the most popular outdoor games with emphasis on the key features for heritage tourism and ecotourism needs. They are also a response to the needs of modern tourists and give the opportunity to expand their general geographical knowledge.

2.1 Scavenger Hunt

Tracking, reconnaissance, and scavenger hunts, are unfailingly associated with scouting. It is a game that was especially popular among scouts. It develops cleverness, perceptiveness, ingenuity, and logical thinking skills. However, above all, it provides an opportunity to have great fun outdoors and engage in healthy competition (Neuman, 2004). It is a simple outdoor game for children and adults of different ages. It involves chasing one group of people by another and completing various tasks along the way.

The size of any of the groups does not matter, but each group should consist of at least two people. The game is most fun if it takes place outdoors, where no one can interfere with the gameplay, and where following the instructions is not difficult and it is easy to find all the clues. A forest or a park seems to be perfect, but the game can take place even in the city, paying special attention to one's safety. The tasks the other group has to perform during scavenger hunts can be anything from doing 10 squats to singing a song or writing a rhyming poem on any given topic. Completing the task requires proof, e.g. a cell phone recording. The game ends when the tracking groups complete all the tasks and manage to find the escaping groups. The escaping team wins if the tasks are not solved. The scavenger games can be played late in the evening or also at night. There is no need for any special equipment to organize a scavenger hunt, only office supplies (a sheet of paper, a pen, and a string for attaching cards to trees or poles), and its attractiveness is determined by the ingenuity of the people who play the game.

2.2 Geocaching

It's a modern-day version of hare and hounds (Christin, 2012; Vartiainen, 2013; Samołyk, 2013). Unlimited by the weather, it allows you to play outdoors and discover many unusual secrets, e.g., about your neighborhood (Craighead, 2009;

Ihamäki, 2012). Matt Stum first used the name "geocaching" on May 30, 2000. "Cache" in English is "locker", "hiding place", "clipboard". The prefix "geo" ("earth") indicates the global nature of this game and the analogy to geography. The game involves hiding boxes in different places. The main rule of the game is to put caches in places of historical, natural, or cultural interest. The boxes come in different sizes and shapes. To make getting to the box more interesting, cachers compete by concealing the stashes and making access to them more difficult.

Locating a geocache container is possible by having the coordinates of the geographic location. The cache usually contains the seeker's logbook and small tokens that may be exchanged, or new ones can be added. The game has its own website (www.geocaching.com) and an application for mobile phones with a built-in GPS module, which is necessary to play. As a response to the introduction of additional paid functions, disgruntled users began to create new, fully free geocaching sites (of international and national scope, e.g., a Polish website existing since 2009 – http://opencaching.pl). The oldest Polish cache, still functioning today, was established in 2002 in Warmia and Masuria.

According to statistics from the 25th of January 2022, there are over 49,000 active geocaches in Poland (geocaching statistics), and their distribution by voivodeship is presented in table 1. There is a large disparity in the quantitative variation. The largest number – just under 8,000, can be found in the Lower Silesian voivodeship. Whereas the smallest number in the Podlaskie Voivodeship – just over 450. The rules of the game, the need to have special hardware, software and the ability to use and apply it in the field, are a response to the needs of modern society to spend free time, penetrate geographical space and learn about heritage.

2.3 Location-based Game

It is a combination of long known leisure activities, scouting scavenger hunts, orienteering, backyard games, walks with elements known from theatre, movies, or drama (Warcholik, 2012). They aim to use the urban environment as a crucial element of gameplay. They can be played anywhere, including closed spaces, such as a school or a sports hall. Most often they have a plot or a theme. Their themes range from historical events to novels or fables. Their result is usually determined by the time it takes to complete the tasks or by the number of points scored for finding the hidden items. How interesting the game is depends on the variety of tasks the goal of which is to stimulate imagination, encourage physical activity and logical thinking.

The idea of location-based games might have originated in New York during the Great Depression in 1929, under the name "Ringolevio". It was a children's game, played almost everywhere, but it originated in the bustling streets of New York City and is known to have been played there as early as before World War I. It is characterized by very simple rules, requires close teamwork and an almost military-

like strategy (Grogan, 1972). Location-based games might take place on a specific date or can be played at any given time. When it is played, the city streets are decorated with colourful props and facilitators who instruct and enable the participants to experience the emotions connected with discovering the city's secrets in an unusual way.

As these types of games began to grow, different variations were launched within and outside of many city centres, giving the opportunity to participate at any time and any place. The players are required to download a starter-card from the website or get it from a tourist information office, proceeding to complete the stages of the game at a time and, importantly, pace of their choosing. An example of a location-based game, the success of which was reported in local newspapers, is the game "Kryminalne Zagadki Szczecina" (Szczecin's Crime Mysteries), organized on the 23rd of January 2011, concerned with Szczecin's history (sedina.pl). It was organized on the occasion of the 100th anniversary of the West Pomeranian Provincial Office – the building of the Szczecin Region. Its aim was to familiarize about 300 game participants with Szczecin's early 20th century history. It was organized by the Provincial Office and the Department of Earth Sciences of the University of Szczecin. Detectives, played by Szczecin's citizens, had to uncover the mystery of the death of the first notary of the Szczecin Region, Kurt von Schmeling.

The game took place on the site of the former Fort Leopold and included official, museum and cultural buildings, as well as park and coastal areas. City games are great for diversifying didactic activities, and are also an opportunity to learn about the contribution of natural and cultural heritage to the immediate area.

2.4 Questing

It is an innovative solution for cultural tourism, created on the basis of cultural heritage, both in cities and in rural areas. The essence of questing is to learn about cultural and natural heritage by creating unmarked trails (quests) in the field, which can be moved on the basis of encrypted, verse clues – puzzles (Kazior, 2008; 2010; Wilczyński, 2011; Pawłowska, 2014; Lenart, 2016). It is a journey off the beaten track, to places often forgotten (Likhtarovich, 2013). Quests have a high cognitive and educational value – they were created as a proposal for an attractive approach to place-based education (Kazior, 2019). They are used to undertake physical and mental activity, and therefore can be considered as a form of recreation. An indispensable background of fun is a map with a description. Routes do not have markings in the field. This forces the active involvement of participants at every stage of the trip in search of clues.

Along the way, commands are executed, letters, numbers or other symbols are collected that help in reaching the treasure. The finale of each quest is the place where the treasure is hidden, i.e., a box / box with a stamp, the reflection of which on the card / map confirms the passage of the entire quest and solving the puzzle.

Treasure cannot be taken, it must be constantly available to other players, which is why it is often hidden in a public place (e.g., in a park on a tree). People with specialist knowledge, history and tourism enthusiasts, familiar with legends and local anecdotes (Wilczyński, 2011) may be involved in the creation of trails. The purpose of the puzzles is to pay attention to everyday elements of space and present them in a unique, unusual way. Quest is a form of fun that leads participants through an interesting area, often beyond the places of the highest tourist concentration and tells an interesting story, a legend. It is an attractive form of visiting the region by tourists who can learn about the local history and culture. It is part of the trend of global tourism, referred to as 4E (entertainment, emotion, education, engagement).

Quests in their current form were created in 1995 in the USA. They were popularized by Delia Clark and Steven Glazer (Clark, 2004). The Valley Quest project, created by scouts, historical associations and other volunteers, created more than 200 quests in an area comprising 50 towns in the Connecticut River Valley in Vermont and New Hampshire. The first questing workshops in Poland were organized in Lower Silesia by Steven Glazer thanks to Barbara Kazior, who had the opportunity to take part in questing overseas. In 2006, the first quests in Poland were created as part of an action covering Warmia and Mazury. In 2010, one of the largest questing projects in Poland began, implemented in the Świętokrzyskie Voivodeship in the Municipality of Bałtów – currently the "Polish capital of questing". In Polish literature, the subject of questing is discussed in the monograph "Culture and tourism. A common path" (Włodarczyk, Krakowiak, Latosińska 2011) by Łukasz Wilczyński, a Polish questing trainer, who emphasizes that this is a new trend in tourism and a new method of sightseeing (Wilczyński, 2011) and Aneta Pawłowska, who analyzes quests in terms of thematic routes (Pawłowska, 2014). Quests are distinguished from city games by maintenance-free, i.e., the principle of "guide yourself" (Figure 1).

Shipment we make the state of t

Figure 1. "Nature of Wapnica 2017" leaflet

Source: https://questy.org.pl/quest/przyroda-wapnicy-2017.

3. Research Methodology and Data

The article uses the Delphi method, also known as the expert method (Sofi variables, 2014). It is the most commonly used foresight research method (Hilbert, 2009; GCPSE, 2014; NISTEP, 2014; Skulimowski, 2016). The primary purpose of Delphi research is to obtain directly from experts information that cannot be found in other available sources and to verify data and evaluations obtained in other ways. This method, developed at the Rand Corporation (Dalkey, 1963) in the 50s of the twentieth century, is widely used in technological or economic-social foresight (Górecki and Skulimowski, 1986; Skulimowski, 2015).

Delphi studies are often interdisciplinary. A distinctive feature is its multiroundness. It consists in conducting several surveys of a group of experts who cannot agree on the answers given in individual rounds of the survey. It is based on the knowledge and experience of experts in a given field, but it also allows for their independent opinions. The participation of experts-practitioners with experience in the impact of the studied field on the broadly understood environment is extremely important (foresight.pl). Often the choice of a heterogeneous group of experts is used. For the purposes of this study, information obtained during an interview with an independent expert in the field of questing, a representative of the Foundation of Places and Active People MiLA of the "Best Quest" program (bestquest.pl), Barbara Kazior, was used. Websites run by experts were the basis for conducting a web query.

In addition, the article was based on a literature study (Hart, 1998; Randolph, 2009), conducted from November 2021 to February 2022, including peer-reviewed articles on "Outdoor games as a promotion of cultural heritage". The following databases were used to locate the relevant literature: Web of Science, CAB abstracts, Google Scholar, Elsevier. The search profile was based on the keywords from the title of this article: "outdoor games", "mass tourism", "individual tourism", "cultural heritage" and their synonyms. This has been combined with areas where "outdoor recreation" can take place: park, green areas, urban forests, rural areas, forests, urban environment. Outdoor recreation is covered by the following terms: outdoor recreation, leisure, way of spending free time or free time.

4. Research Results

Quest portals have a total of over 6400 registered users. In total, over 1100 outdoor puzzles were registered in Poland, covering the entire country. Their spatial and quantitative diversity in Poland is presented in Table 1. For comparison, the distribution and number of kesh used in geocaching were also presented. The vast majority are located in smaller towns, in areas away from frequented tourist routes, where the attention of the game participants is directed to less known, but equally interesting sightseeing objects. Its range includes historical-cultural, natural topics.

Table 1. Spatial and	quantitative	diversity	of	quests	and	kesh	in	Poland.	As	at
31.01.2022										

Voivodship	guests	cache			
zachodniopomorski	26	3455			
pomorskie	9	3076			
kujawsko-	16	4706			
warmińsko-	53	2648			
podlaskie	43	475			
lubuskie	22	2086			
wielkopolskie	216	4168			
mazowieckie	120	3451			
dolnośląskie	73	7826			
łódzkie	97	1655			
opolskie	15	917			
śląskie	64	4630			
świętokrzyskie	93	764			
lubelskie	31	1300			
małopolskie	211	6221			
podkarpackie	85	1851			
SUM	1174	49229			

Source: Own elaboration based on maps, portal search engines (www.bestquest.pl; www.questy.org.pl; www.questing.pl; www.geocaching.pl) and interviews

They are available for walkers, cyclists, boaters and those who choose a car as a means of transport. They can be downloaded via mobile applications and as geocaching games (Figure 2). Most of the puzzles are ready to be printed, a smaller part is available in the application, 4 quests are in virtual form, created on the basis of Google Street View, and can be solved online (Figure 2).

Figure 2. Spatial diversity of quest points in Poland and cache points in the vicinity of Szczecin



Source: Own elaboration based on search engines of individual portals and direct interviews.

In addition to virtual quests, the puzzles are prepared so that the quest is unsolvable without going into the field and its direct exploration. There are about 20 foreign quests, i.e. available in different language versions. All portals have extensive quest search engines, thanks to which it is possible to sort according to the necessary criteria. The criteria can be differentiated according to: their location with a narrowing by county, type of route (walking, cycling, water, car), dominant theme (historical, cultural, natural), title, type of terrain, forest/meadow; mountainous terrain; city/village; inside the building, availability (year-round, seasonal), form (mobile, virtual), transition time, search word, map. The spatial diversity of quest and kesh points is shown in Figure 2. The multitude of geocaching points may result from the fact that the game was introduced earlier and the author was less involved in its preparation and publication.

However, it is more important to highlight the ever-increasing public interest in this form of outdoor activity. Every year, the number of designated places to hide boxes and created quest cultural and natural trails increases. Evidence of quantitative variation over almost a decade is the presented inventory results (Figure 3).

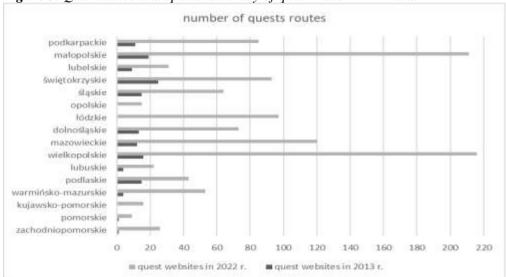


Figure 3. Quantitative and spatial diversity of quest trails in 2013 and 2022

Source: Own elaboration on the basis of discussed websites and expert interviews.

The Świętokrzyskie Voivodeship (25 trails), which was the leading and pioneering in 2013 in the number of prepared questing trails, gave way to the Wielkopolska and Małopolska regions. Both voivodships in 2022 have less than 220 active questing routes. Three voivodships of the northern Polish, i.e. Pomorskie, Kujawsko-Pomorskie and Zachodniopomorskie, did not significantly change the number of thematic routes prepared. Against the background of the country, they still have the smallest number of them.

Proof of the importance of outdoor games in learning about and promoting cultural heritage is cooperation with the Polish Tourist and Sightseeing Society. For the most committed participants, thus including an element of competition in the game, a system of rewarding the PTTK Quest – Expedition of Explorers Badge has been offered. The requirement to obtain it is to reach the right number of interesting tourist places throughout Poland. The requirements and scale of difficulty increase with the next category of badge.

5. Conclusion

Elements of cultural heritage are determinants of the image of the region. By caring for them and protecting them in the form of material goods, traditions, customs, folklore, you can also protect the natural environment. It does not have to be a job dedicated to specialists, but also to the local community. Promoting its cultural and natural resources through outdoor games (i.e. geocaching, urban games, questing) can form the basis of the concept of heritage tourism and ecotourism.

There is no municipality that does not have cultural or natural heritage in its area. Heritage offers an opportunity for economic development based on innovation and local entrepreneurship, using cultural diversity as a factor of competitiveness. The possibility of economic use of heritage is most often combined with tourism. The desire to explore heritage can be combined with traveling. The tourism industry is growing and is of great importance in the economy. Heritage is a resource that can be used, for example, in the creation of products and services in less known areas or remote from major tourist routes.

Outdoor games can be treated multidimensionally with versatile use. As modern methods of promoting the region and the values of local heritage. As a factor expanding the offer of visiting museums, open-air museums and thematic villages. As a tool for building a tourist and recreational offer and a tourist product. As an unusual method of sightseeing, which in view of the challenges of the twenty-first century, i.e., the closure or difficult operation of most cultural institutions, is of great value. As a new trend in the development of family, school, rural, urban tourism, supplemented by forms of cultural tourism. As part of remote regional education. Field learning can be a great alternative to lessons in history, geography or nature, culture, art, and even social studies. As a form of innovative information sharing.

In even seemingly the least interesting places you can find a breeding ground for creating a quest. Thanks to this, the quest can be one of the valuable elements of the eco-museum offer, i.e., a network of places and objects presenting the "living" natural, historical and cultural heritage.

Forms of tourism, ways of spending free time and tourist equipment used must follow the spirit of dynamically changing times. That is why games and fun in nature, known for centuries, are gaining a new face.

References:

- Allen, D., Rhoden, S., Sakharchuk, E., Ilkevich, S., Sharafanova, E.E., Pecheritsa, E. 2015. Cultural tourism F. Dimanche, L. Andrades (Eds.), Tourism in Russia: A management Handbook, Emerald Group Publishing, Bingley, 133-178
- Christin, D., Buttner, C., Repp, N. 2012, Cached Sensing: Exploring and documenting the environment as a treasure hunt (Conference Paper). In: Proceedings Conference on Local Computer Networks, LCN 2012, 37th Conference on Local Computer Networks Workshops, LCN Workshops 2012, 973-981.
- Clark, D., Glazer, S. 2004. Questing. A Guide to Creating Community Treasure Hunts. University Press of New England, Lebanon.
- Craighead, J. 2009. Promoting Cultural Heritage without Much Cash in the Cache: A Case for Geocaching. AMCIS 2009 Proceedings, 211. https://aisel.aisnet.org/amcis2009/211.
- Dalkey, C.N., Helmer-Hirschberg, O. 1963. An Experimental Application of the Delphi Method to the Use of Experts. Management Science, 9(3).
- Gentin, S. 2011. Outdoor recreation and ethnicity in Europe A review. Urban Forestry & Urban Greening, 10(3), 153-161. https://doi.org/10.1016/j.ufug.2011.05.002.
- Gómez-Ruiz, M.L., Morales-Yago, F.J., de Lázaro-Torres, M.L. 2021. Outdoor Education, the Enhancement and Sustainability of Cultural Heritage: Medieval Madrid. Sustainability, 13(3), 1106. https://doi.org/10.3390/su13031106.
- Gołoś, G. 2013. Questing i gry terenowe jako atrakcyjne rekreacyjno-edukacyjne formy aktywności na terenach leśnych (Questing and outdoor games as attractive recreational and educational forms of activity in forested areas). Studia i Materiały CEPL w Rogowie. 34. no 1.
- Górecki, H., Skulimowski, A.M.J. 1986. A Joint Consideration of Multiple Reference Points in Multicriteria Decision Making, Foundation of Control Engineering, 11(2).
- Grogan, E. 1972. Ringolevio, a Life Played for Keeps. Published by Heinemann, Great Britain.
- Hart, C. 1998. Doing a literature review. Sage Publication. London-Thousand Oaks-New Delhi.
- Hilbert, M., Miles, I., Othmer, J. 2009. Foresight tools for participative policy-making in inter-governmental processes in developing countries: Lessons learned from the eLAC Policy Priorities Delphi. Technological Forecasting and Social Change 76(7), 880-896. http://www.martinhilbert.net/Hilbert_etal.eLACdelphi.pdf.
- Ihamäki, P. 2012. Geocachers: The creative tourism experience. Journal of Hospitality and Tourism Technology, 3(3), 152-175. DOI: 10.1108/17579881211264468.
- Kazior, B. 2008. Questing nowa metoda odkrywania dziedzictwa miejsca (Questing a new method of discovering the heritage of a place). Ekoturystyka i odkrywanie dziedzictwa. Zbiór dobrych praktyk. Wyd. Fundacja Fundusz Partnerstwa, Fundacja Partnerstwod la Środowiska, Kraków, 17-21.
- Kazior, B. 2010. Questing odkrywanie dziedzictwa miejsca (Questing discovering the heritage of the place). Poszukiwanie skarbów na greenways. Wyd. Fundacja Partnerstwo dla Środowiska, Kraków, 3-7.
- Kazior, B. 2019. Questing, czyli współczesna forma turystyki (Questing, a modern form of tourism). Wspólnota Pismo Samorządu Terytorialnego, Głos gmin wiejskich, 29 czerwca 2019 r. In: Clark D., Glazer, S., Questing: A Guide to Creating

- CommunityTreasure Hunts. University Press of New England, Hanover and London.
- Laatoa, S., Islama N., Lained T. 2020. Did location-based games motivate players to socialize during COVID-19? Telematics and Informatics. https://doi.org/10.1016/j.tele.2020.101458.
- Laamarti, F., Eid, M., El Saddik, A. 2014. An overview of serious games. International Journal of Computer Games Technology, 1-15 http://doi.org/10.1155/2014/358152. Lenart, E. 2016.
 - http://questing.pl/wpcontent/uploads/2016/11/publikacja_questing_jako_forma_akty wizacji_spolecznosci_lokalnej.pdf.
- Likhtarovich, K., Szustka, K. 2013. Questing wyprawy odkrywców jako nowa forma aktywnej edukacji plenerowej w lasach i na terenach przyrodniczo cennych (Questing explorers' expeditions as a new form of active outdoor education in forests and naturally valuable areas). Studia i Materiały CEPL w Rogowie, 34(1), 319-327.
- Malegiannakia, I., Daradoumisab, T. 2017. Analyzing the educational design, use and effect of spatial games for cultural heritage: A literature review. Computers & Education, 108, May, 1-10. https://doi.org/10.1016/j.compedu.2017.01.007.
- Mikos von Rohrscheidt, A. 2008. Turystyka Kulturowa. Fenomen, potencjał, perspektywy (Cultural Tourism. Phenomenon, potential, prospects). Wyd. GWSHM Millenium, Gniezno.
- Mikos von Rohrscheidt, A. 2008. Kulturowe szlaki turystyczne próba klasyfikacji oraz postulaty w zakresie ich tworzenia i funkcjonowania. Turystyka Kulturowa www.turystykakulturowa.org, 2, 17-31.
- Mortara, M., Catalano, C.E., Bellotti, F., Fiucci, G., Houry-Panchetti, M., Petridis, P. 2014. Learning cultural heritage by serious games. Journal of Cultural Heritage, 15(3), 318-325. http://doi.org/10.1016/j.culher.2013.04.004.
- Neuman, J. 2004. Education and learning through outdoor activities: games and problem solving activities, outdoor exercises and rope courses for youth programmes. European Year of Education through Sports, Project Outdoor Sports Education.
- National Institute of Science and Technology Policy (NISTEP). 2014. Science and Technology Foresight and Science and Technology Trends. NISTEP website. http://www.nistep.go.jp/en/?page_id=56#target01.
- Pawłowska, A. 2014. Questing jako innowacja w turystyce kulturowej (Questing as an innovation in cultural tourism). Turystyka Kulturowa. http://www.turystykakulturowa.org/pdf/2014_01_02.pdf.
- Randolph, J.J. 2009. A Guide to Writing the Dissertation Literature Review. Practical Assessment, Research & Evaluation, 14(13), 1-13.
- Samołyk, M. 2013. Geocaching nowa forma turystyki kulturowej. Turystyka Kulturowa, No 11/2013, 18.
- SOFI Variables and Developments for Korea. 2014. Real Time Delphi Questionaire website. http://www.realtimedelphi.com/STUDIES/korea/KSOFIA.php.
- Skulimowski, A., Kluz, D. 2016. Wielorundowa analiza delficka jako narzędzie grupowego wspomagania decyzji. Prace Naukowe / Uniwersytet Ekonomiczny w Katowicach. Analiza i wspomaganie decyzji w praktyce gospodarczej, 70-97.
- Skulimowski, A.M.J. 2015. Selected Methods, Applications, and Challenges of Multi-criteria Optimization, Seria: Monografie, Komitet Automatyki i Robotyki Polskiej Akademii Nauk. Wydawnictwa AGH, Kraków.
- Tzima, S., Styliaras, G., Bassounas, A. 2021. Revealing Hidden Local Cultural Heritage

- through a Serious Escape Game in Outdoor Settings. Information, 12(1), 10. https://doi.org/10.3390/info12010010.
- UNDP Global Centre for Public Service Excellence (GCPSE). Foresight as a Strategic Long -term Planning Tool for Developing Countries. UNDP GCPSE, Singapore. Available at:
 - http://www.undp.org/content/undp/en/home/librarypage/capacitybuilding/global-centre-for-public-service-excellence/Foresight.html.
- UNWTO-Global-Guidelines-to-Restart-Tourism. https://webunwto.s3.eu-west -1.amazonaws.com/s3fs-public/2020-05/UNWTO-Global-Guidelines-to-Restart -Tourism.pdf.
- Warcholik, W., Leja, K. 2012. Gry miejskie jako innowacyjne produkty turystyczne [Urban game an innovative tourism product]. In: Annales Universitatis Paedagogicae Cracoviensis, 126, Studia Geographica, III, 87-97 (in Polish).
- Wilczyński, Ł. 2011. Questing, czyli jak skutecznie wypromować swój region w oparciu o współpracę lokalnej społeczności (Questing, or how to effectively promote your region based on the cooperation of the local community). Agencja Public Relations Planet PR.
 - $www.festiwal promocji.pl/fileadmin/user_upload/PLANETPR_questing_Jablon_31. \\03.11.pdf.$
- Wilczyński, Ł. 2011. Questing nowy trend w turystyce. In: B. Włodarczyk, B. Krakowiak, J. Latosińska, Kultura i turystyka. Wspólna droga, Publ. ROTWŁ, Lódź, 53-59.
- Wilczyński, Ł. 2011. Questing nowy trend w turystyce (Questing a new trend in tourism). Kultura i turystyka. Wspólna droga. Regionalna Organizacja Turystyczna Województwa Łódzkiego, Łódź, 55.
- Vartiainen, T., Tuunanen, T. 2013. Co-creation of value for IT-enabled services: A case of geocaching (Conference Paper). In: Proceedings of the Annual Hawaii International Conference on System Sciences, 46th Annual Hawaii International Conference on System Sciences, HICSS, 1093-1102.
- yu Park, H. 2010. Heritage tourism: Emotional Journeys into Nationhood. Annals of Tourism Research. 37(1), 116-135. https://doi.org/10.1016/j.annals.2009.08.001.

Internet sources:

https://krakowairport.pl/blog/turystyka-2020-i-co-dalej.

https://opencaching.pl

https://www.geocaching.pl/statistics.php?status=1&state_id=396

http://sedina.pl/wordpress/index.php/2011/01/16/szczecinskie-gry-miejskie-kryminalne-zagadki-szczecina.

https://www.foresight.pl.

www.bestquest.pl.

www.geocaching.com