A DIFFERENT CULTURAL EDUCATION. THE USE OF LOCATION-BASED GAME IN ACADEMIC EDUCATION

Author: Ewa Jurczyk-Romanowska
Scientific degree: PhD
Affiliation: Institute of Pedagogy,
University of Wroclaw,
Dawida 1, 50-527 Wroclaw, Poland
E-mail:
ewa.jurczyk-romanowska@uwr.edu.pl

Author: Jacek Gulanowski
Scientific degree: PhD
Affiliation: Institute of Pedagogy,
University of Wroclaw,
Dawida 1, 50-527 Wroclaw, Poland
E-mail: jacek.gulanowski@uwr.edu.pl

Abstract: The paper discusses results of a study conducted as a part of the *Kulturalny Wrocław [Cultural Wroclaw]* academic project. The aim of the project was to bridge cultural education and education with the use of ICT in the field of academic education. Students of the University of Wroclaw played a specially created location-based game and they evaluated its educational value through questionnaires and focus interviews. They evaluated location-based game as an effective, attractive and valuable method of education, although difficult to organise and dependent on the weather. Participation in the game increased their positive evaluation of the game in comparison to evaluation before playing the game.

Keywords: *academic education, university, cultural education, ICT in education, games in education, location-based game.*

INTRODUCTION

Academic education is a specific form of knowledge transmission to people, who should be interested in acquiring the widest possible range of skills useful in their future work and thus it faces numerous challenges. Nowadays, civilisation development still based on the permanent development of the internet society, in which the most important aspect seems to be the complex interactivity and knowledge-based economy, implies the necessity of searching for new ways of transmitting knowledge. The observed growth of expectations of learners, in relation to the ways of knowledge transmission and its character, is a consequence of the wide availability of all kinds of databases, where one can find the basic knowledge on all fields. In this complicated situation, innovative methods of teaching are gaining importance.

While searching for innovative methods of education of university students, the authors of this paper have realised the *Kulturalny Wrocław* [Cultural Wroclaw] project, which was a combination of two academic courses: (1) *Basics of cultural education, and* (2) *Education with the use of information and communication technologies.* The participants of

the project were students of 2-year M.A. studies of Pedagogy, specialisation: *Marketing and management of educational institutions in the region.* The project was realised in 5 editions from May 2014 to May 2016. Overall, 72 participants from five groups (three groups of resident students and two groups of external students) took part in the project.

In further parts of the paper, we will present the aims and objectives of the courses (the part which was the project), the description of mechanism and quests of the *Cultural Wroclaw* game, methodology of the research, and conclusions arising from the study.

THE AIMS AND OBJECTIVES OF THE COURSE
BASICS OF CULTURAL EDUCATION

The course *Basics of cultural education* is realised in the Institute of Pedagogy of the University of Wroclaw (Poland) as part of the Pedagogy studies curriculum for the students of specialisation *Marketing and management of educational institutions in the region.* This specialisation is one of the available paths of education for the students of Pedagogy on post-Bachelor, Master's degree studies, both for resident and external students, graduates of both pedagogical and non-pedagogical studies.

The aims of the course are:
· learning the basic terms and theories in the fields of art, culture, and media;
· learning the forms of institutional and extra-institutional forms of participation in contemporary culture;
· knowing the relation between culture and media, and society and individual;
· shaping the skill of critical analysis of cultural texts and understanding them in the perspective of education and socialisation;
· shaping the attitude of responsible engagement in the contemporary cultural life.

During the course students learn: (1) the basic terms and definitions from the field of cultural education (culture, art, media, popular culture, mass culture); (2) different models of co-dependency of culture and society; (3) the output of the pedagogy of culture, and (4) methods and techniques of the analysis of cultural texts. Students learn also (5) institutional and extra-institutional participation in culture, as well as (6) types of cultural institutions in Poland, as well as (7) local cultural initiatives in Lower Silesia.

The educational aim of the location-based game discussed in this paper was the summary of the whole course of *Basics of cultural education*, and the connection of knowledge of culture with the practice of cultural education, as well as the use of this knowledge in action.

THE AIM AND OBJECTIVE OF THE COURSE
EDUCATION WITH THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES

Just as the above mentioned course, *Education with the use of information and communication technologies* course is realised in the Institute of Pedagogy of the University of Wroclaw (Poland) as part of the Pedagogy studies curriculum for the students of specialisation *Marketing and management of educational institutions in the region.* It is an obligatory course for the students of 2-year post-Bachelor, Master degree studies. Its length is 20 hours and it demands independent work of the students.

The aims of the course are:
· learning the idea of distance learning and the methods of projecting e-learning courses;
· learning and use of distance learning programmes;
· learning innovative methods of education with the use of information and communication technologies.

During the course students (1) learn to use different programmes to create e-learning courses, (2) have independently created an e-learning course on the module platform, (3) learned the possibilities of the use of modern mobile technologies in education, (4) learned the possibilities of using games

(including location-based games) based on various forms of distance communication in education. The location-based game Cultural Wroclaw was an exemplification of the possibilities of using smartphones in location-based games. Furthermore, it was the first game that the students participated in as a part of the course *Education with the use of information and communication technologies.*

LOCATION-BASED GAME CULTURAL WROCLAW

The proper projecting of a game is of most importance for the realization of the planned educational aims. It is a difficult task, both from the perspective of the game and in the educational aspect. There is a common belief among the players that "an educational game" is an oxymoron, as it is impossible to combine fun (which is a sine qua non condition of any game) with the realization of educational aims. As Johan Huizinga (the classic and precursor of ludology) has stated: "Game is a voluntary activity, realized in certain set borders of time and space according to voluntarily accepted, but unconditionally respected rules; it is an aim in itself, accompanied by the feeling of suspense, joy, and the consciousness of its difference to normal life" (Huizinga, 1985, p. 22). Furthermore, game is connected with the necessity of respecting certain formal criteria. Espen Aarseth has pointed out the following element: (1) gameplay – adhering to the activity of players, strategy, and motivations, (2) game-structure – rules of game and simulation, (3) gameworld – the element of fiction, texture, project of typology of levels (Aarseth, 2004). Jespen Juul has presented such elements as: player, game, and world (Juul, 2003). A location-based game should consist of such elements as: (1) condition of wining – clear statement on when the game is won; (2) aim – what the player has to achieve to win, usually every game consists of more numerous aims and achieving them guarantees victory; (3) action – clearly set actions, which the players need to realize during the game; (4) obstacles – all kinds of difficulties which the players have to face during their path to achieving the aim – that is the very essence of the rivalry, which provides the joy of playing; (5) rules – different limitations which need to be respected during the game, but it is due to them that players achieve joy of winning (Tkaczyk, 2012, p. 102). Furthermore, the location-based game is played in a certain area, which is the urban space, which on the one hand is a map of the game – the board, on the other it should be an element of the gameworld.

Table 1. Scheme of the Cultural Wroclaw game. Source: developed by authors.

Element of the game	Cultural Wroclaw game
condition of winning	To win, team needs to finish the game first: guess the password and present photographs of the letters of the password
aim	Solving the password of the crosswords
action	Searching for places marked on the map in accordance with the strategy chosen by the team
obstacles	(1) riddles (2) time
rules	(1) rules of the game found in the instructions (2) the need to respect traffic rules (3) no running (4) every team needs to stay together at all times
gameworld	The city (pictured on the map with marked points connected with niche culture of Wroclaw)

During the game the participants had to find places marked on the map, which were connected with culture in Wroclaw. The participants had to choose from 9 different locations (Fig.1), and their choice depended on the strategy of play they chose. Students were divided into two groups, each of which had its own supervisor, with whom they were in contact through text messages.

The condition of winning was solving the crosswords and reaching the endpoint. The team which reached the endpoint first and presented photos of letters of the crosswords password won the game.

The tasks consisted of various stages:

(1) finding the place marked on the map (Fig. 1) and shown on the place which was given to the students with the instructions (Fig.2)

(2) taking a photograph of the place and sending the photo to the group supervisor, who will reply with a riddle concerning cultural events connected with this location (Fig. 3).

(3) solving the riddle and writing it into the crossword (Fig. 4),

(4) forming the letter of the crosswords (connected to the given localisation) and sending the picture to the group supervisor (Fig.5)

(5) supervisor replies through a text message, whether the letter is correct.

The team, which has solved the whole crossword, had to find the endpoint - marked on the map and pictured with a photograph. If the password for the crossword was guessed before finding all the locations, the remaining letters of the password had to be formed and photographed by the team at the endpoint. Only photographing all the letters and getting to the endpoint could ensure ending and winning the game.

DESCRIPTION OF THE QUESTS OF THE GAME:

The quests, which the students had to accomplish were connected with the following objects in Wroclaw:

· Passage between Ruska street and St. Anthony street with the murals;

· Schaffgotsch palace and "Pałacyk" club;

· Świdnicka Cellar;

· "Jaś" tenement and the House of Copperplate Engraver;

· Juliusz Słowacki alley (Museum of Architecture) – Monument to the Shot Hostages of Nowy Sqcz by Władysław Hasior;

· Chair monument by Tadeusz Kantor (Rzeźnicza street)

· Railroad viaduct and "Kosmostumostów" mural;

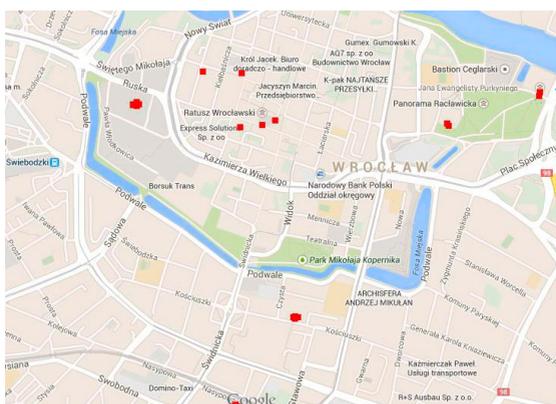· The "Negro" Tenement by Solny Square – figure of "Black-Get";

The Endpoint

Fig. 1 Map with marked points connected to the niche culture of Wroclaw. Source: developed by authors, based on https://www.google.pl/maps.

As a part of the „Kosmostumostów" [„Hundredbridgescosmos"] project Wroclaw rapper L.U.C. collaborated with other artists on an album, artbook, graphic novel, a series of animated clips and a few murals. The location to find is a mural dedicated to final exams and the cuisine of Wroclaw.

Fig. 2 Location VII. „Rapping about exams and dumplings". Phot. Ewa Jurczyk-Romanowska

- National Museum in Wroclaw: Christian Berensen sculpture "Allegory of Fishery".

METHODOLOGY

The aim of the research was to answer the main research question: How do students of pedagogy evaluate the location-based game as method of education?

Additional research questions were:
- How do students evaluate the location-based game as method of education before and after participating in it?
- How does their evaluation change?
- What upsides and downsides of the location-based game as a method education are perceived by the students?
- How do students evaluate the location-based game in comparison to traditional methods of academic education?
- How do students participate in the location-based game?

Methods used in the research were: questionnaire, interview, and observation, and the techniques were: open and closed question questionnaire, focus interview, and researcher's notebook.

RESULTS

Questionnaire – closed questions. The closed question questionnaire was aimed to establish how the participants evaluate the location-based game as an educational method in six aspects: usefulness, attractiveness, easiness to organise, accessibility, credibility, and effectiveness. Participants filled out the questionnaire before and after the game in order to note the shift in their evaluation of the game. Every aspect was evaluated on a scale 0-5, 0 being the least (for instance: most ineffective) and 5 being the most (for instance: most effective).

The mean results before the game were as follows:
- usefulness: 4,46,
- attractiveness: 4,6,
- easiness to organise: 2,
- accessibility: 3,06,
- credibility: 4,13,
- effectiveness: 4,3.

Thus, the participants before participating in the location-based game evaluated it as useful, attractive, difficult to organise, rather inaccessible, credible, and effective method of education.

Fig. 3 A group of students after finding Location VII. Phot. Tomasz Pawlicki

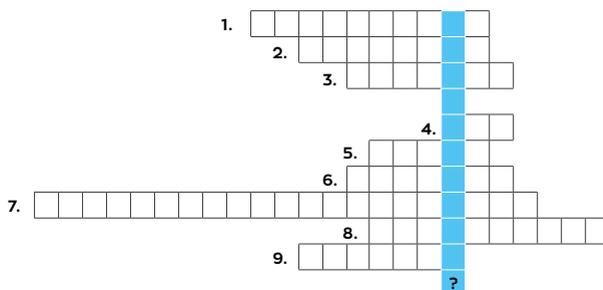**Fig. 5** A group of students presenting the letter „T" from the game crosswords. Location VII. Phot. Tomasz Pawlicki

Fig. 4 The game crosswords

Table 2. The description of the quest connected with the location VII (Fig. 3) - version with answer

No.	VII
Place	Railroad viaduct near Komandorska street
Title	„Rapping about exams and dumplings"
Description	As a part of the „Kosmostumostów" project Wroclaw rapper L.U.C. collaborated with other artists on an album, artbook, graphic novel, a series of animated clips and a few murals. The location to find is a mural dedicated to final exams and the cuisine of Wroclaw.
Links	http://www.kosmostumostow.pl/#murale http://kosmostumostow.pl/mapa.jpg
Riddle	What is the title of L.U.C.'s first LP?
Answer	Haelucenogenoklektyzm

The mean results after the game were as follows:
- usefulness: 5,
- attractiveness: 5,
- easiness to organise: 3,
- accessibility: 4,46,
- credibility: 4,73,
- effectiveness: 4,93.

Thus, the participants after participating in the location-based game evaluated it as most useful, most attractive, rather difficult to organise, accessible, credible, and very effective method of education.

There was shift in all aspects of their evaluation of the game. The most noticeable are the unanimous evaluations of the game as most useful and most attractive method of education. The students also changed their perception of the accessibility of the game, which they evaluated as accessible. However, the participants still evaluated the game as difficult to organise.

Questionnaire – open questions: upsides and downsides. The questionnaires consisted also of an open question about the upsides and downsides of location-based game as a method of education. The participants again answered these questions before and after playing the game.

The most common upside noted before playing the game was "Getting to know the city" and "Getting to know interesting places". An original upside was listed as: "Learning to be independent and the ability to use public transport". It must be emphasised that most of the students participating in the game were not from Wroclaw and they had little knowledge of the city as well as of the public transport system.

The next category of the upsides was the focus on internal group dynamics, namely "Integration of the group", "Cooperation" and "Teamwork".

The next category was the focus on developing personal skills and abilities such as: "Possibility of discovering one's own skills and abilities", "Possibility to discover skills of cooperation and fulfilling certain roles in the group", "Discovering skills of sense of direction", "Exercising the speed of decision-making", and "Exercising the skill of connecting facts".

The next category of comments were those focusing on the specific features of location-based game as a method of education. The participants considered the game an "Attractive" and "Innovative" "Up-to-date method", which is "Making the education process more attractive". It is also considered "Good fun", "Interesting activity", and "Variety". It is perceived as "Learning through experience", "Learning through fun", and "Possibility to integrate different fields of education" which is "Engaging the previously acquired knowledge". Furthermore, it is considered a "Practical class" and "Putting theory into practice". As one of the participants put it: "Learning through fun is the best method of learning".

One of the participants provided a more elaborate comment connecting all the categories mentioned before: "a Location-based game strengthens the ability of perceiving and finding predispositions of the group, interpersonal skills in organisation and leading the group. It is a perfect tool of integration and rivalry".

Interestingly, only one of the participants listed the aim and topic of the game [Cultural education] as the upside.

The same categories emerged in the upsides noted by the participants after playing the game, although the emphasis is placed differently. The main upside noted by almost all of the participants is "Integration". The next most popular was "Cooperation". Clearly, internal group dynamics moved to the centre of the participants' focus. This has an effect on the skills that the game develops: "Teamwork – we learn to play together."

The next most popular category is again: "Getting to know the city", and in a more detailed manner: "Getting to know new places in the city" and "Getting to know culture in the city". This aspect also has an impact on the skills of the participants: "We acquire skills of organisation and moving around fast".

The skills most often listed by the participants are "Planning and organisation skills". Some of the participants specify them as: "Planning the route and transport". Another aspect of the game is "Training of communication". The participants mention also "Learning new information" as well as "Learning to quickly acquire information". The physical aspect of the game is also visible: "Positive effect on our bodies – since we had to walk many kilometres". One of the comments summarises all these aspects: "Learning many new things: moving around the city, recognising art in the city"

The game became perceived as "Education and fun combined". As one of the participants put it: "Besides educational value – good fun". The comment "Good fun!" is the most frequent one in this category. However, the educational aspect is also emphasised – the upsides are listed simply as "Educational" and "Educational method". The method is evaluated as: "Attractive", "Interesting", "Ingenious", a "Variety", but also "Great workout". It is an "Easy and pleasant form of education".

Participants noted less downsides of the game, both before and after playing the game. Most of the downsides listed before playing the game were connected with the organisational aspect of the game. The game is "Difficult to organise", it "Needs a lot of effort to organise", and it "May be expensive to organise". Time is also an important downside: location-based game is considered "Time-consuming to organise and to play". Many participants listed "Lack of control of the weather" as downside.

Another downside is the "Lack of control of the group (if it is a group of school students: primary and secondary school)". Also, "It engages more people (if there is a need to provide tips or directions during the game)" and "The engagement of the whole group is necessary."

The next category of downsides is connected with the space where the game is played: "The lack of knowledge of the topography can be a difficulty in effective moving of the whole group, but the help of the leader (pilot) can counteract this difficulty". There is "The risk of getting lost", because of "Lack of sense of direction". In the participants' words: "We don't know the city, it will take a lot of time" and "It is necessary to know the city and system of public transport".

The downsides noted by the participants after playing the game are quite similar. The most common one is the "Weather", or more precisely: "Dependence on the weather".

The second most popular category of downsides was again: "Time". The participants evaluated the game as "Time-consuming". As many participants noted, there was "Little time to solve all tasks and to move around".

The problems with the knowledge of the city were not as common as before the game, but they still arose. As one of the participants wrote: the game is "difficult if you don't know the city". There were certain "problems with transport" and "distance".

The new category of downsides that emerged

after the game were: "Unclear rules". This was connected with the problem of transport: "It was not clearly stated, how we are supposed to move around", and "The rules need to be made clearer – you move either by tram or by car".

A completely new category was the downside that the participants had not predicted: "Internet connection is necessary". As one of the participants wrote: "The lack of internet is a nice change, so it would be better to ask more questions about the places themselves".

Interestingly, one of the participants after playing the game wrote "None" in the downsides section.

Focus interviews. During conducting of focus interviews, right after playing the game, the researchers observed the excitement of students – their joy of having participated in the project. The participants widely and energetically discussed their strategies, the mistakes, they made jokes about their mistakes and funny situations, which took place during accomplishing of the quests. Students have also reminisced on other games, in which they had participated during earlier stages of life, both as children (games organised in schools) as well as workers (during corporate events), and also as citizens of Wroclaw (participation in the initiatives of the local government). In the students' statements there was visible astonishment at the possibility of arranging the game, so it can also fulfil educational aims. It became an inspiration for future pedagogues, there were initiatives of creating similar games for their students, in their place of residence[1].

The questions of game mechanics were widely discussed. The authors have received much information regarding the elements, which could be improved (such as: more demanding riddles, negative points for running or violating traffic rules), as well as these, which had caused great joy (searching for locations pictured in the photographs - "even though I live in Wroclaw, I felt like an explorer" (a female external student, 2014) - and the need to form letters with their bodies).

The participants have highly evaluated the game mostly as a form of group integration. The possibility to have classes outside, the independence in finishing the tasks, as well as the change in relationship, lowering the distance between students and group supervisors, were the biggest upsides of the project. For the external students the use of the internet to solve the riddles was also attractive. The problem of the effectiveness of the classes was widely discussed – it was pointed out that perhaps at the same time it would be possible to discuss more problems during traditional classes. On the other hand, students have pointed out to the potential longevity of the acquired knowledge, as the information found during solving of the riddles will in the future be connected with their achievements, experience, emotions, places, people, and situation. The photographs of the letters have been described as specific memory hooks. These pictures were later posted by the participants on social media and were widely commented upon . We could also observe how new language codes are created, the use of which began during the game.

Students have also pointed out that this type of game plays an important motivational function, as the participation in the game arises "interest in the topic. I will now go back home and I will read

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[1]   Currently, similar games are realised by students of Pedagogy, working as staff of summer and winter camps. Students have consulted with the authors of the paper on their ideas, asked them to review the educational games, and also have sent pictures and relations of the realised games. Location-based game was often used (in one case it was enriched with the elements of LARP, in another quests have been combined with board games, in the other 11 cases these were typical location-based games).

about the mural, about which I had no idea. And this is also of great value, one gets more engaged in this gaining of knowledge, if one is interested in it" (Female external student, 2014).

Among the downsides, students have emphasised the risk connected with the weather, lack of knowledge of public transport system (it was mostly the case with students, who had tried to use cars during the game, and in result had great problems in finding parking spots), as well as lack of knowledge of city topography (mostly in the case of external students, most of whom live in different places), however in this case the evaluation was ambivalent, as the game became an impulse to learn about the city, in which they study.

Observations. One of the observations made by the researchers is that the students participating in the game truly did not know Wroclaw well, even though they study in the city. Another interesting point is that they had problems with using the public transport system. The public transport system in Wroclaw has a bad reputation, and many of the students choose cars for everyday use. However, one of the teams decided to use cars instead of moving by foot and by trams/buses and lost the game.

Another very interesting observation is the fact that students had many problems with obtaining information necessary to solve the problems. They often tried to ask random people to get the answer and Internet was their second choice. They also had problems with searching for information on Google – for instance they typed the whole question instead of using just keywords.

The next interesting observation was that students had very little knowledge of culture. The questions and problems were all connected with figures and movements famous on at least national level. However, in most cases students were not able to answer any of them without using the Internet. It is especially noteworthy, since the education in Poland is focused on general knowledge (instead of for instance vocational training) and humanities,

thus it was rather surprising to find out that in this case there was no effect on the students.

CONCLUSIONS

Participants have really enjoyed the location-based game. Since the very beginning they had a positive view of this method of education, but after actually playing it, their evaluation was even better. They consider it an attractive and innovative method which allows learning through having fun. However, they consider it to be time-consuming and difficult to organise – and they are right about that, since this location-based game did take some time to organise.

It must be emphasised that students focused much more on the game itself than on its actual topic, namely culture in Wroclaw. However, they enjoyed it most from all the classes dedicated to education and considered it an interesting variety in academic education, different from traditional classes.

The *Cultural Wroclaw* project should be considered a successful one – thus it was continued in future editions and became a constant element of the previously mentioned courses. From the perspective of an academic educator, it must be emphasised that the realisation of the discussed location-based game did not demand either the engagement of many people, or high financial resources. Thus, conducting such classes is not a great logistical challenge, thanks to which playing the game is possible in any appropriate weather conditions. Clear rules of the game were not a problem for the participants, and the simple mechanics allows one to freely adapt the game to different content.

This research was focused on the perception and evaluation of this method by participants in the academic education context. It was not aimed to establish the level of effectiveness of the location-based game as a method of education. The problem of its effectiveness needs further study, especially experimental research.

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