
Tourism 2020, 30/1

Katarzyna Leśniewska-Napierała

 <https://orcid.org/0000-0003-2998-6179>

University of Lodz

Institute of the Built Environment and Spatial Policy

CiTUR, Centre of Tourism Research, Development and Innovation, Portugal

katarzyna.lesniewska@geo.uni.lodz.pl

Tomasz Napierała

 <https://orcid.org/0000-0002-6407-5197>

University of Lodz

Institute of Urban Geography and Tourism Studies

CiTUR, Centre of Tourism Research, Development and Innovation, Portugal

tomasz.napierala@geo.uni.lodz.pl

Kathleen M.C. Tjørve

 <https://orcid.org/0000-0002-7514-838X>

Even Tjørve

 <https://orcid.org/0000-0001-8822-2094>

Inland Norway University of Applied Sciences

Department of Tourism, Creative Industries and Marketing

kathy.tjorve@inn.no, even.tjorve@inn.no

A 'CONTEST' AS A PEDAGOGICAL METHOD IN TOURISM HIGHER EDUCATION: A CASE STUDY IN TEACHING CREATIVITY THROUGH PROBLEM-SOLVING¹

Abstract: The main goal of the paper is to discuss whether a contest, as an educational tool, can develop the creativity of participants when the main goal of the students may be to win. A 24HOURS contest was implemented as a case study. Three methods were used to evaluate the effectiveness of the 24HOURS contest: a written questionnaire, individual in-depth interviews, and an online questionnaire. Results proved that the contest was unsatisfactory in increasing students' creativity, as they were oriented to win, or to acquire knowledge, rather than to cooperate or interact with representatives of other student teams. The investigation confirmed the tutors' enabling responsibility for both cooperation and creativity during the contest. However, expectations of tutor engagement caused concern and their role should, therefore, have been more clearly defined. Analysis of the case study presented in this paper can provide pedagogues with insight into the design and implementation of contests as educational tools.

Keywords: tourism, higher education, contest.

1. INTRODUCTION

Interest in tourism education has increased in the last fifty years. This is especially seen in the context of the rapid innovation generated by new technologies in the tourism sector (Barkathunnisha, Lee, Price, 2017; Ndou, Mele, Del Vecchio, 2018; Sigala, Baum, 2003). Critical approaches to tourism pedagogy force students to think more broadly and reflectively about tourism (Rouzrok, Muldoon, Torabian, Mair, 2017). A heavier em-

phasis on skills and behaviours oriented to creative and critical thinking has become a key priority in the tourism labour market (Ndou, Mele, Del Vecchio, 2018). The development of new ideas to solve problems in the tourism industry should be enriched with new thinking and know-how using knowledge from existing theories in a context of changing needs (Li, Liu, 2016).

In the search for new educational tools, researchers prioritise the benefits of new methods compared to traditional classroom learning in an effort to make knowledge more accessible. Consequently, the comprehension and application of new information is expected to be more effective. In combination with clear goals and difficulty levels, students should be enabled to solve increasingly complex tasks, while being further motivated through enjoyable and challenging interaction with other students (Paraskeva, Mysirlaki, Papagianni, 2010).

As Barkathunnisha, Lee and Price (2017) has noticed, experiential and participatory social learning and insightful thinking in tourism education are required. Unfortunately, there is not much research examining pedagogy and the development of innovative and creative teaching approaches. Little research has been carried out on the education of future employees of the tourism industry either. This study describes one teaching technique which can be used in learning and in teaching the social skills required in problem solving within the field of tourism. In addition, this teaching method can increase creativity during problem solving.

The main goal of the paper is to discuss whether a 'contest', as an educational tool, is limited to developing the creativity of participants when the main goal of the students may be to win. Moreover, the role of tutors in the contest, as responsible for triggering creativity, was widely discussed. Thus, a 24HOURS contest was used as a case study to evaluate their effectiveness as an educational tool in tourism higher education. It is assumed that an effective educational method will enable student creativity, mainly through cooperation and networking, with the support of tutors. Effectiveness refers to whether the contest was able to stimulate student creativity, encourage them to want to win while developing knowledge and social competencies, and in addition to successfully creating networking opportunities between students. The influence of tutors on the educational effectiveness of contests was also considered. The analysis of the case study presented in this paper can provide pedagogues with insight into the design and implementation of contests as a learning tool.

2. LITERATURE REVIEW

2.1. CONTEST AS AN EDUCATIONAL TOOL

Dagiene and Skupiene (2004) indicate that contests are a form of problem-solving teaching, in contrast to traditional classroom teaching which is often focussed on a small, specific exercise. Despite the fact that analysing

real datasets is more difficult, many students prefer working with them rather than on abstract problems (Boyle et al., 2012). Real datasets are often more appealing and intuitive, and provoke an individual's personal interests (Dagiene, 2010). Consequently, the incentive to use contests as a learning tool arises from students' positive attitude to working on practical issues. Real-world learning is suggested in some recent studies (Johnston, Boyle, MacArthur, Manion, 2013) as an encouraging addition to modern educational tools which allow students to recognize, discuss, and solve complex, multifaceted, and real problems, using a range of methods.

In the discussion of gaming as an educational tool, Johnston, Boyle, MacArthur and Manion (2013) argue that such modern tools should allow students to enhance their experience, and develop their knowledge and skills in a safe environment, simulating reality as much as possible. Consequently, a contest as an educational tool should be a forum where learning emerges as a result of a task for competing students, knowledge is developed through the task expected to be solved, and skills are developed as a result of participating (Pauschenwein, Goldgruber, Sfiri, 2013).

Prince (2004) assumed that the difference between collaborative and cooperative learning is in the method of student assessment. Both these learning forms involve working as a group to solve a particular problem, but in cooperative learning students are assessed individually, whereas in collaborative learning students are assessed as a group.

A problem-based learning cycle starts with the introduction of the relevant problem (Prince, 2004); subsequently students are motivated to learn about, discuss, and solve it. Problem-based learning has usually, but not necessarily a collaborative or cooperative character. The competitive aspect of group problem solving is

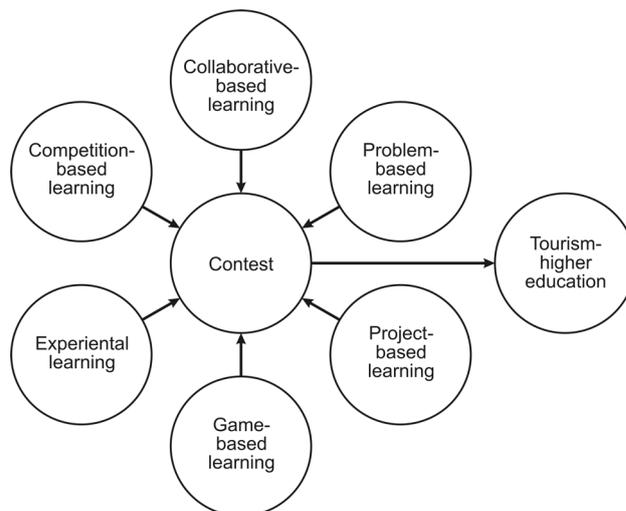


Figure 1. A contest and similar pedagogical tools in tourism higher education
Source: authors

noted by Prince (2004) as being opposite to that when working individually. Fig. 1 sums up the characteristics of a contest as an educational tool, as reviewed here.

2.2. STIMULATING STUDENTS' CREATIVITY THROUGH A CONTEST

In a contest, the factors influencing the creativity of those participating can be divided into two groups: firstly, the students' attitudes; and secondly, the variation between students including levels of creativity, knowledge, and social competence (see Fig. 2). Regardless of the field of study, creativity is understood as an essential factor of innovation which stimulates new knowledge. It is defined according to Liang and Lin (2015) as a student's capacity to come to an original solution for a task which satisfies the criteria of both originality and usefulness. Both cognitive ability (learning, which allows one to understand existing knowledge, i.e. reproductive imagination) and creativity (the development of new knowledge) are results of creative imagination (Liang, Lin, 2015).

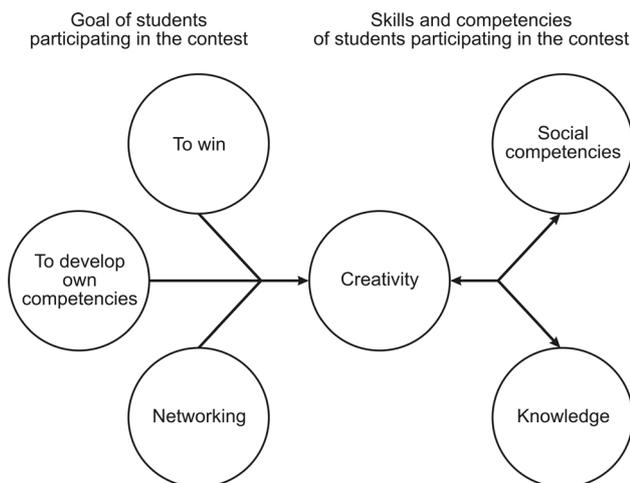


Figure 2. Creativity versus students' skills, competencies and attitudes during a contest
Source: authors

Effective cooperation refers to the success of interactions between students. Therefore, students need both social and cognitive skills in cooperative learning. Social competencies are understood as the ability to solve conflict and manage competition within the group, and for the group's participants to be open to different viewpoints. Cognitive skills allow the students to use, acquire and even create knowledge. Thus, cognitive skills refer to the ability of students to ask questions, define problems, set up hypotheses, define goals, and use tools and methods to find a solution (Cohen, 1994). Contests might be seen as an informal tool to introduce a subject to a group of students. Contests make the

learning process more attractive and possibly more effective. Moreover, contests are a useful tool for students' networking (Dagiene, 2010).

Cohen (1994, p. 8) defined a group task as:

a task that requires resources (information, knowledge, heuristic problem-solving strategies, materials, and skills) that no single individual possesses so that no single individual is likely to solve the problem or accomplish the task objectives without at least some input from others.

It should also be noted that the time needed to solve a task is a significant resource. Thus, a group task is one that cannot be accomplished by a single person within a reasonable timeframe.

Panitz (1999) discussed the differences between collaboration and cooperation in the learning process. He indicated that collaboration is rather a personal philosophy whereas cooperation should be understood as a way of developing personal interactions. Cooperation is needed to accomplish any specific goal by a group, therefore, in our study of a 24HOURS contest, we compared individual work to cooperation (not collaboration) as a learning technique. Working on open-ended tasks refers to collaboration rather than cooperation and it is argued that cooperation is used to find recognized or predicted answers for problems defined by teachers. The learning environment is, therefore, more controlled by the teacher than in collaborative situations. According to the findings of Panitz (1999), contests (such as the 24HOURS contest of our study) relates more to collaboration than cooperation.

If it is agreed that creativity is the more desired skill to be developed through the contest, this should be the main focus of organizers and of members of a jury. Consequently, the winners of the contest are anticipated to be the most creative. Students who are focussed on cooperating with others should be more creative than self-oriented students interested in the development of personal competencies or in winning. Hence, if the main goal is to win, this must be expected to limit the development of the participant's creativity. Experience and knowledge seem to be crucial proficiencies necessary to win a contest in which participants are expected to create new solutions for a particular problem (Artiles, Wallace, 2014). However, it was noted by both Austin (1990) and by Artiles and Wallace (2014) that choosing contests as tools to solve any, especially complex, problems can be challenging.

2.3. THE ROLE OF A TUTOR IN A CONTEST

The attitude of the students to the learning process at an academic level has changed in recent years. At the same time, students' perception of the significance of

social competencies that are developed during higher education has also changed. According to the 'Recommendation of the European Parliament and the Council of 18 December 2006 on Key Competencies for Lifelong Learning' (2006), social competencies are:

linked to personal and social well-being which requires an understanding of how individuals can ensure optimum physical and mental health, including as a resource for oneself and one's family and one's immediate social environment, and knowledge of how a healthy lifestyle can contribute to this.

These so-called "soft" competencies related to efficient time and responsibility management, effective behaviour in social situations, communication in a group and motivation seem to be becoming more important (Heckman, Kautz, 2012; Martowska, 2014).

It was recognized that working in small groups constitutes the best opportunity for cooperative learning. It stimulates all students in a group to prosocial behaviour (being cooperative and friendly), active learning and essential conversation. Cooperation between students, especially when dealing with complex issues, should be assisted by the teacher or tutor. This assistance is also required when the student group is heterogeneous, for example representing different research fields or different levels of achievement (Cohen, 1994). Advanced group work occurs when students use one another as resources which means that group work does not mean only to delegate tasks, leaving out good interaction. Structuring the interaction between students working in the same team is challenging, therefore tutors need to be aware of the requirement to structure the level of student interaction (Cohen, 1994). Considering the fragile psyche of the students, contests as an educational tool should be used with care; students participating in them must be confronted with problem solving rather than dealings with other students (Dagiene, 2010).

As discussed above, student creativity is stimulated by cooperation rather than individual work or rivalry. Thus, the most valuable elements of a contest are those focused on developing cooperation between the participants. The main goal of the 24HOURS contest was to develop the creativity of the participants, and to encourage mechanisms that strengthen cooperation rather than the development of individualism or rivalry. The educational effectiveness of contests depends on a tutor's ability to explain to the students its basis, and the benefits of both cooperation and creativity. Therefore, both tutors and student teams should be responsible for encouraging cooperation as well as creativity during the contest. Here we have introduced a problem-based contest as a learning technique in tourism higher education. This means that (according to these criteria) the 24HOURS contest studied should be considered an

example of a collaborative learning technique as used in problem-based learning. Thus, the following research question should be stated: are tutors of student teams responsible for enabling both cooperation and creativity during a contest.

3. METHODOLOGICAL FRAMEWORK

3.1. A 24HOURS CONTEST AS A CASE STUDY

The 24HOURS contest was organized in Lodz, Poland on 14th November 2014 by two academic institutions: University of Lodz (Poland) and Lillehammer University College (Norway) (now the Inland Norway University of Applied Sciences). The main idea was to implement the Norwegian educational 24HOURS contest in Poland (*Schedule project – significance of competition in higher education*, 2015). The student teams (1 tutor and 4 students) participating in the contest were allowed 24 hours to decide on the best strategy to develop MICE tourism² in the metropolitan area of Lodz, Poland. The 24HOURS contest was supported by a grant from Iceland, Liechtenstein and Norway through EEA Grants and Norway Grants, and was co-financed by Polish Funds. English was the event's official language.

The organizers of the 24HOURS contest decided to invite student teams, rather than individuals, to represent various academic institutions in the event. This was because a cooperative environment provides better conditions for learning than a competitive one (Prince, 2004). Submissions from seven teams, representing six academic institutions, were received and accepted: Lillehammer University College, Lodz University of Technology, Poznan University of Economics, University of Lodz, Warsaw School of Tourism and Hospitality Management, and Wroclaw University of Environmental and Life Sciences.

As organizers of the 24HOURS contest, we encouraged team gender balance. Cohen (1994) argued teams with equal number of females and males can eliminate the negative impact of gender status on effectiveness in group work. Every team participating in the 24HOURS contest was requested to be supported by a professional tutor.

This was intended to remedy the negative effects of not having an expert tutor in problem-based learning, which in our case was self-paced and self-directed (Prince, 2004). PhD candidates were recommended. Artiles and Wallace (2014) regard workshops and tutorials as the most valuable parts of a contest's programme therefore the 24HOURS contest was enriched with a guided city tour. In addition, organizers delivered a presentation about planning and after the contest, during

a week-long visit to Lillehammer, the winning team presented their solution for the 24HOURS contest and discussed the abstract and details of a future academic paper.

An important element of the 24HOURS contest was the website and the use of social media (Twitter and Facebook). The website was the primary source of information shared with the participants and it was made available to the students before the event. The tutors had prepared presentations on the topic for the participants, and the teams compared their knowledge with all other participants in the event. As in the Sigala (2002) study, the idea of a contest was to make use of knowledge rather than to internalize and reproduce it.

The task to be solved during the 24HOURS contest was defined by a jury and publicly announced at the beginning and was to prepare 'a strategy of development of MICE tourism in Lodz Metropolitan Area 2020+'. The jury included representatives of the organizers as well as external experts. Each student team was asked to put the results of its work into a template and submit it to the jury. The teams participating in the 24HOURS contest then presented their prepared strategies to an audience for which each team was allowed up to seven minutes. The jury assessed the presentation on the basis of nine evaluation criteria: value of the solution, conditions, assessment and strategic diagnosis, vision/mission statement and strategic goals, strategic actions and responsible institutions/main actors, risk assessment, implementation plan for the strategy, summary, completeness of the solution, and overall impression.

The 24HOURS contest was established not only as an educational event, but also as a case study for research on the use of contests in tourism higher education. The idea of combining the implementation of educational methods with research on its effectiveness has its parallel in the CHERMUG project ('Continuing/Higher Education in Research Methods Using Games') which was developed to verify the possibility of the implementation of digital games in lifelong learning programs (Johnston, Boyle, MacArthur, Manion, 2013), the VR-ENGAGE project ('A Virtual Reality Education Game') to teach children geography (Virvou, Katsionis, 2008), 'Play the Learning Game' project, which was established to create an international network of educators interested in the innovative and effective use of digital games (Pauschenwein, Goldgruber, Sfiri, 2013), and finally the EPINOISI project ('Specialized Formation of General and Special Education Teachers and Production of Educational Material for Mild Intellectual Disability'), which discussed the potential and limitations of using digital games in teaching students with mild intellectual disability (Saridaki, Gouscos, Meimaris, 2006).

3.2. DATA COLLECTION

Three data-collecting methods were applied to evaluate the effectiveness of the 24HOURS contest. First, a short, written questionnaire was given to all the participants in order to assess its organization, handed out just before the final decision of the jury and the award ceremony. It contained both open and closed questions, with the purpose of evaluating a participant's general opinion of the 24HOURS contest, its organizational aspects, the main reason for taking part, and the uniqueness of the event. We had 35 completed surveys returned (100% research sample).

Second, individual in-depth more interactive interviews were conducted to better understand participants' opinions of the contest (Savenye, Robinson, 2005). Interviews were held on 6th March 2015 at the end of the study tour to Lillehammer (the prize for the winning team). Both tutors (T1 and T2) and eight students (S1 through S8) representing two of the teams participating in the 24HOURS contest were interviewed. To facilitate these, an interview schedule with a set of questions was prepared. The average interview lasted 18 minutes; those of the tutors were longer. The interviewed participants were asked whether their social competencies, knowledge or organizational skills improved or were developed during their participation in the 24HOURS contest. Moreover, participants' overall impression about the event was evaluated.

Third, the authors used an online questionnaire to evaluate the attitude of the participants to the most significant social aspects of the 24HOURS contest: individual work, competition, and cooperation. Like the individual, in-depth interviews, online questionnaires were conducted a few months after the contest.

3.3. METHODS OF ANALYSIS

A common framework of assessment of educational tools should refer to three subjects: student, teacher, and resources. Moreover, four main dimensions of the assessment should be considered: where the tool is employed, the learner or learner group, the place (real or artificial) used to introduce the problem to solve, and finally, the critical reflection on the learning process (de Freitas, Oliver, 2006). Both likeability and usability of should be assessed. Only likeable tools should be used for educational purposes while on the other hand, only useful tools can make a learning process more effective than it already is (Virvou, Katsionis, 2008).

The findings from the qualitative data differed greatly both between team members and between teams. After converting it to text, ordering techniques were used to allow for interpretation of the large amount of

data (Angrosino, 2008; Gibbs, 2008; Kvale, 2008). The qualitative results were used to define and verify research questions such as:

1. which of the students' social competencies were improved or developed during the 24HOURS contest;
2. did the contest enable the students to improve and develop their knowledge;
3. what were the team members' roles during the contest;
4. what were the individual perceptions of the contest?

Prince (2004) argued that many relevant learning outcomes are often difficult measure. This is especially the case when measuring the outcomes of problem-based learning methods. Therefore, an online questionnaire treating the social aspects of the 24HOURS contest was conducted to assess the students' attitude to work, the potential competencies they developed, and their general impression of participation. The results of the questionnaire were analysed with *k*-means clustering and presented on ternary plots.

The *k*-means method was employed twice to identify homogenous groups of students regarding separately investigated phenomena:

- three types of skills and competencies indicated by the participants of the 24HOURS contest as most strengthened – knowledge, creativity, and social competencies,
- three types of social relations found by the participants of the 24HOURS contest as most emphasized – cooperation, competition, and focus on individual work.

The *k*-means clustering method is a cluster analysis algorithm, i.e. searching for and extracting groups of similar objects (clusters). The *k*-means method allows for different scenarios of clusters and relies on moving objects from one group to another until the variations within and between the clusters are optimized (Kanungo et al., 2002). To present the results of this analysis, ternary plots were prepared separately for three different types of investigated skills and competencies, and for three different kinds of social relation. It should be explained that the ternary plot is a triangular diagram which displays the proportions of three variables that sum to a constant value. Thus, it might be used for the presentation of phenomena with a tripartite structure. It graphically depicts the ratios of the three variables as positions in an equilateral triangle (Korycka-Skorupa, 2007; Runge, 2006).

4. RESULTS AND DISCUSSION

4.1. GENERAL OPINIONS ABOUT THE 24HOURS CONTEST

General opinions of the contest shown through all the data-collecting methods was positive (see Fig. 3). Factors such as the organizers, volunteers, and the

city tour (which was part of the event) were rated very highly. It is worth emphasising that human factors were recognized as the best part of the event but ICT facilities and catering were, however, rated significantly lower. It might be supposed that recent student expectations about learning and working conditions were very high. It needs to be underlined that the contest's participants focused on the idea of the event, rather than the prize, rating all human factors higher than prize-oriented students. They cared much less about the food and beverages. However, they were very aware of the quality of the ICT facilities provided by the organizers, as these were recognized by the students as one of the crucial resources to deliver results.

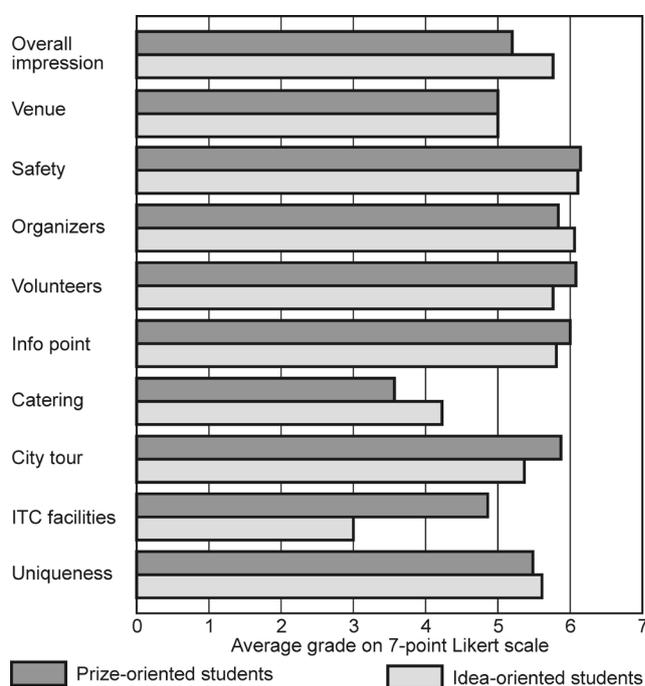


Figure 3. Evaluation of the 24HOURS contest by participants regarding their willingness to win

Source: authors based on questionnaires

The program of the contest was considered the main factor determining the participants' overall impression of the event. Regarding this aspect, some students' opinions should be presented, for example (S5): "It was a really good competition but it was too long. 24H was really tiring for us". Another student noted that (S1):

When the time start to get about 5 in the morning, and I was so tired, I felt sleep on a chair, and... We knew that we had two more hours and the project have to be done, and... We got... I got a bit frustrated. I need sleep, and I need food, and... When I lack bathroom it's... it's hard to focus, and hard to concentrate.

4.2. STIMULATING CREATIVITY THROUGH THE 24HOURS CONTEST

When discussing students' skills and competencies, creativity should be confronted with social and cognitive skills. Students were asked to indicate those skills and competencies which were most strengthened by participating in the 24HOURS contest (see Fig. 4). It should be emphasized that individual knowledge was recognized by most of the students as the crucial skill. Only one group of students (represented by triangles on Fig. 4) considered creativity as the most important. Moreover, some groups noted that creativity was increased during the contest by the development of social competencies, rather than individual knowledge.

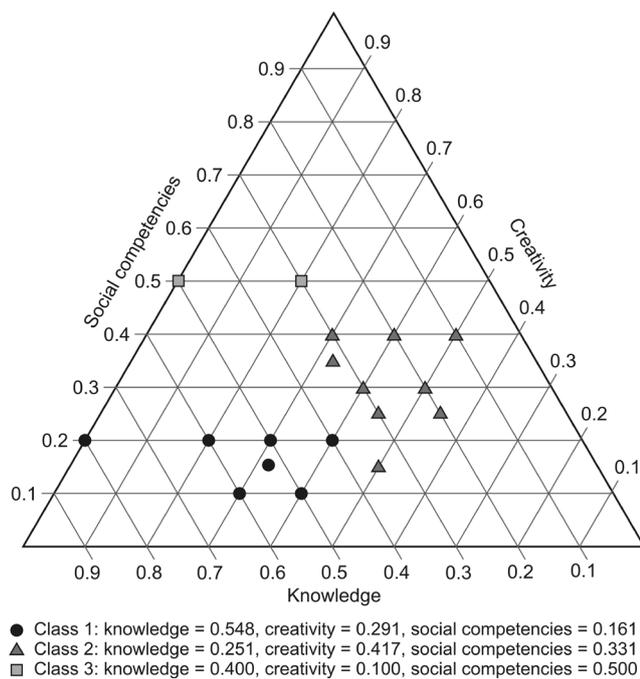


Figure 4. Skills and competencies indicated by the participants of 24HOURS contest as most strengthened by the event
 Source: authors based on an online survey

Findings from the online survey were in line with results from the in-depth interviews. The students considered that knowledge was the main skill developed during the 24HOURS contest, for example S1 said:

I didn't know anything about MICE tourism. I didn't know what that word meant. And... I learnt a lot about the subject, about MICE tourism... I learnt a lot of new expressions and... When I came back, I actually used a lot of the information that I got in Poland on my exams.

Similarly, another student (S6) said:

I have learnt about a strategy, how build the strategy, what is its structure, so vision, mission and what we

should do [...]. Of course we had lessons on our university about that but it was obligatory and, seriously, we don't like this subject.

However, contrary opinions were also found. The participants reported that their knowledge and social skills required to interact as a group during the 24HOURS contest had increased, for instance (S1):

I got new knowledge about MICE tourism and probably working with other people under pressure. I can see my role a bit more clearly as the guy who comes up with good ideas and develops them. But maybe I'm not the perfect man to write the paper. I can be the guy with the ideas and solutions. And someone else would be the girl or boy with the pen.

Another student (S3) noted:

We divided everything equally. I don't know if it is good thing or bad thing. We have learnt more about how to work in a team after that. For some people it is just more natural to be a leader than others. I think we were together as a team very well.

Rating the opportunity for creativity, a student commented for example that (S6):

We had a brainstorm and it was very amazing that it was so late and we had SWOT analysis on the table. We had a lot of ideas at this late hours. It's great for us. We had a lot of fun. We have done it and we won.

It is argued that both creativity and cognitive ability are positively correlated with openness (Liang, Lin, 2015). It must be noted that during interviews only the most extroverted students had no problems in defining results of their creative behaviour, for example (S1):

I developed the idea of a page called "Meet in Lodz". Because, we searched the web for a lot of information about Lodz. But, there is nothing in English. So, it was really hard for us to get any knowledge at all.

One of the abovementioned students even indicated introversion as a significant weakness of fellow students participating in the 24HOURS contest (S1):

Polish people are not as open as Norwegians. I noticed that at once, that when we got there we were like... from Norway. But Polish people are not in the same way as we are. So, it was... It wasn't so easy to get in touch with anyone [...]. But, it took some time to make them open, open themselves for us. So, I think the Polish students are bit reserved. And, it's not easy to get in touch with them. So, they could be a bit more open, like us Norwegians. And then we would probably end up in a lot of new friendships.

Student relations as developed during the 24HOURS contest were divided into three groups: focus on individual work (lack of interactions between students),

competition, and cooperation (see Fig. 5). It should be emphasized that most students were eager to focus on both cooperation and individual work simultaneously. However, regarding the rules of the contest, teamwork was forced by the organizers. Hence, the main focus was on cooperation between members of particular teams. Thus, students could compete and cooperate at the same time (see students represented by squares on Fig. 5).

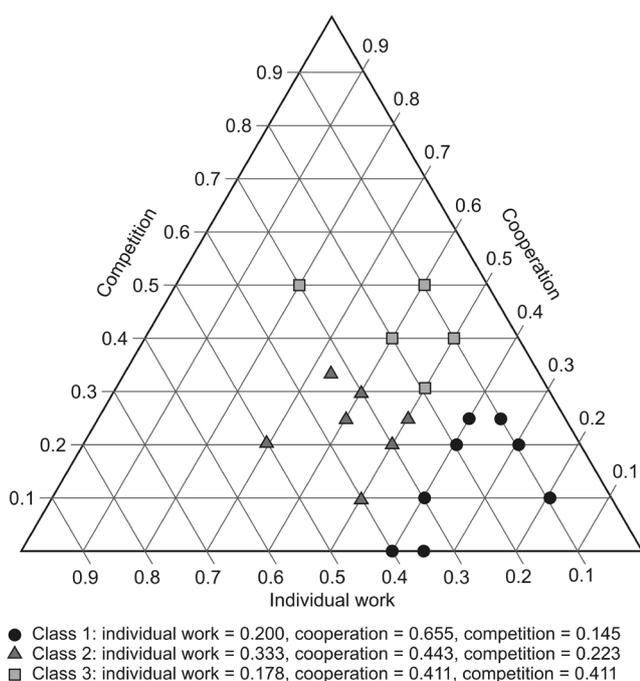


Figure 5. Social relations indicated by the participants of the 24HOURS contest as most emphasized by the event
 Source: authors based on an online survey

It should be underlined that students rated cooperation as the most important aspect for the team, as did S7: "First of all, the teamwork – that's key for... making all the strategy for Lodz. Because we had only 24 hours. I couldn't make all the strategy alone". T2 and S8 noted the same, and that: "We all decided to take a part of our work". However, cooperation between the teams was not evident during the contest. Thus, while cooperation only among team members occurred, conditions for developing creativity were not perfect. On the other hand, students considered the competition between the teams as important, for example (S1): "If there were no competition, it wouldn't be that fun. Because, that we didn't have to compete. We can just say: 'oh, whatever'. But, when we knew we were competing against other teams, it was important". While the main goal of the students participating in the contest was to cooperate (but only with members of their own team), and to compete (to win), individual knowledge, rather than creativity was evidenced as a main skill developed during the event.

4.3. ROLE OF TUTORS IN THE 24HOURS CONTEST

The role of the tutor in a group of students could be understood as a guide to planning the project work, piloting the project very carefully, especially estimating the time required for the completion of tasks (Roisin, Fitzmaurice, 2005). The tutor should mainly be there to help the group especially in a situation when students cannot find an appropriate way to solve the problems (Woltering, Herrler, Spitzer, Spreckelsen, 2009). During the 24HOURS contest, the role of the tutor was problematic and the in-depth interviews showed that they were uncertain of the expectations of their engagement in the work of their group.

In the winning team the responsibilities were very wide, and the tutor became a natural leader doing a lot of work. This was confirmed by the students, for example (S5): "because she has got the huge knowledge. And she knows/ speaks better than we in English". Another student noticed (S6): "She did a lot of things. She used information from her university [...]. It was very useful for us". Regarding the educational results, the undefined role of the tutor should be emphasized as the main limitation of the 24HOURS contest. Students supporting the tutor was revealed as the best strategy for winning. However, this was completely opposite to the main educational goal where the tutor supports the students.

The tutor in another investigated team had a completely different role. As one of the students noticed (S1) "he told us that he can help us but he can't give us the answers and he can't... he can't do the presentation for us". The opinion of this tutor (T1), the leader of the team was one of the students, who "told them what to do. She said what has to be done. She went through the assignments and assigned different tasks to people". At the same time the students noticed that the tutor did not do any tasks in the project (S2): "He didn't do much. He just answer the questions if we ask him. We did everything ourselves".

When it is the educational goal of the contest that is primary, the role of tutor should be precisely defined. As stated in the research question, tutors are responsible for enabling both cooperation and creativity during the contest. However, when the tutor's responsibilities are not well described, there is a risk that creativity will be developed rather by individual knowledge, and through competition. This is not as effective as it could have been when developing creativity through social competencies and cooperation and unfortunately this part of the research exposed the greatest disadvantage of the 24HOURS contest.

5. CONCLUSIONS

The creativity of the tourism students was stimulated through the contest, as the different teams produced different and innovative solutions to a real tourist

industry problem. The students who participated in the event were positive towards the contest and noted this conclusion themselves. The 24HOURS contest clearly integrated theory with practice, as was discussed by Fidgeon (2010), enhancing tourism curriculums by balancing vocational and academic goals. Tourism students were expected to draw on their academic knowledge to recognize and solve a real problem. Creativity was, however, not the main aspect of learning stimulated through the contest. Participants believed that the competition mainly improved their individual knowledge of the tourism industry and its workings, in addition to learning social skills that are required to work as part of a team. Moreover, cooperation with members of a student's own team was developed, rather than with members of the other teams.

Regarding the arguments of Dale and Robinson (2001), representatives of tourism and other disciplines should be brought together when discussing the effectiveness of a contest as a tool in tourism higher education. Almost half of the Polish students participating were recruited from non-tourism graduate programs and members of the winning team represented the spatial management (not tourism) program. This shows that complex problems in the tourism industry can be effectively solved not only by tourism professionals. More importantly, this shows the value of contests in stimulating learning about an industry like tourism and in stimulating creativity to find a "winning solution". Moreover, Artiles and Wallace (2014) have argued, creating interdisciplinary teams for a contest is an effective way of making participants more familiar with other disciplines. Working with students from other disciplines is much more effective than forcing them to participate in lectures delivered by professionals representing other fields. However, cooperation between teams was not in evidence, thus the positive effect of combining interdisciplinarity and cooperation did not occur during the 24HOURS contest.

The findings of Johnston, Boyle, MacArthur and Maniona (2013) are relevant to the implementation of contests in tourism higher education and should engage students and make them interested in the research problems at hand. Students should be encouraged to formulate explicit research questions, choose and evaluate project design, and learn to employ qualitative and quantitative methods. Students should be creative. All these challenges should be considered when defining the role of students' tutors during the contest. As was emphasized in the research question, tutors are responsible for enabling both cooperation and creativity during the contest.

Austin (1990) has suggested a few factors that should be considered regarding contests as an educational tool. Firstly, in American-centred cultures competition is more of a 'fetish' than a natural part of human nature.

Secondly, competition does not necessarily motivate people to do their best because it may not rely on competence. Finally, self-confidence is not a clear result of participating in the contests. Thus, it should be concluded that the 24HOURS contest did not turn out to be a fully successful learning environment. Moreover, the desire to win fostered acquiring new knowledge within the tourism field rather than creativity.

ENDNOTES

¹ This research was co-funded by Norway Grants, under agreement No. FSS/2013/IIC/W/0008/U/0023 between the Foundation for the Development of the Education System – responsible for the Scholarship and Training Fund, Inter-Institutional Cooperation and the University of Lodz.

² MICE is an acronym from "meetings", "incentives", "conventions" and "exhibitions". MICE tourism is related to all forms of business travel (Sylla, Chruściński, Drużyńska, Płóciennik, Osak, 2015).

REFERENCES

- Angrosino, M. (2008). *Doing ethnographic and observational research*. London: SAGE. DOI: <https://doi.org/10.4135/9781849208932>
- Artiles, J.A., Wallace, D.R. (2014). *Methods for innovation: Observations from the Education DesignShop*. FabLearn 2014, Conference on Creativity and Fabrication in Education, 25-26 October, Stanford University, USA.
- Austin, J.R. (1990). Competition – is music education the loser? *Music Educators Journal*, 76 (6), 21-25. DOI: <https://doi.org/10.2307/3400964>
- Barkathunnisha, A.B., Lee, D., Price, A. (2017). Transcending towards a spirituality-based platform in tourism higher education: a contemplation of the pedagogical implications. *Journal of Hospitality, Leisure, Sport and Tourism Education*, 21, 174-184. DOI: <https://doi.org/10.1016/j.jhlste.2016.11.003>
- Boyle, E., Rosmalen, P. Van, Macarthur, E., Connolly, T., Hainey, T., Johnston, B., Ger, P.M., Fernández, B., Kärki, A., Pennanen, T., Manea, M., Starr, K. (2012). Cognitive task analysis (CTA) in the continuing/higher education methods using games (CHERMUG) project. In: F. Patrick (ed.), *Proceedings of the European Conference on Games Based Learning* (pp. 63-72). Sonning Common: Academic Publishing International Limited.
- Cohen, E.G. (1994). Restructuring the classroom: Conditions for productive small groups. *Review of Educational Research*, 64 (1), 1-35. DOI: <https://doi.org/10.3102/00346543064001001>
- Dagiene, V. (2010). Sustaining informatics education by contests. *Lecture Notes in Computer Science*, 5941, 1-12. DOI: https://doi.org/10.1007/978-3-642-11376-5_1
- Dagiene, V., Skupiene, J. (2004). Learning by competitions: Olympiads in informatics as a tool for training high-grade skills in programming. In: T. Boyle, P. Oriogun, A. Pakstas (eds), *2nd International Conference on Information Technology: Research and Education* (pp. 79-83). London: IEEE. DOI: <https://doi.org/10.1109/ITRE.2004.1393650>
- Dale, C., Robinson, N. (2001). The theming of tourism education: A three-domain approach. *International Journal of Contemporary Hospitality Management*, 13 (1), 30-35. DOI: <https://doi.org/10.1108/09596110110365616>

- Fidgeon, P.R. (2010). Tourism education and curriculum design: A time for consolidation and review? *Tourism Management*, 31 (6), 699-723. DOI: <https://doi.org/10.1016/j.tourman.2010.05.019>
- de Freitas, S., Oliver, M. (2006). How can exploratory learning with games and simulations within the curriculum be most effectively evaluated? *Computers and Education*, 46 (3), 249-264. DOI: <https://doi.org/10.1016/j.compedu.2005.11.007>
- Gibbs, G. (2008). *Analysing qualitative data*. London: SAGE.
- Heckman, J., Kautz, T. (2012). Hard evidence on soft skills. *Labour Economics*, 19 (4), 451-464. DOI: <https://doi.org/10.1016/j.labeco.2012.05.014>
- Johnston, B., Boyle, L., MacArthur, E., Manion, B.F. (2013). The role of technology and digital gaming in nurse education. *Nursing Standard*, 27 (28), 35-38. DOI: <https://doi.org/10.7748/ns2013.03.27.28.35.s9612>
- Kanungo, T., Mount, D.M., Netanyahu, N.S., Piatko, C.D., Silverman, R., Wu, A.Y. (2002). An efficient k-means clustering algorithm: Analysis and implementation. *IEEE Transactions of Pattern Analysis and Machine Intelligence*, 24 (7), 881-892. DOI: <https://doi.org/10.1109/TPAMI.2002.1017616>
- Korycka-Skorupa, J. (2007). Trójkąt Osanna jako forma prezentacji danych statystycznych i legenda map tematycznych. *Polski Przegląd Kartograficzny*, 39, 340-353.
- Kvale, S. (2008). *Doing interviews*. London: SAGE. DOI: <https://doi.org/10.4135/9781849208963>
- Li, Y.Q., Liu, C.H. (2016). How to establish a creative atmosphere in tourism and hospitality education in the context of China. *Journal of Hospitality, Leisure, Sport and Tourism Education*, 18, 9-20. DOI: <https://doi.org/10.1016/j.jhlste.2015.11.001>
- Liang, C., Lin, W.-S. (2015). The Interplay of creativity, imagination, personality traits, and academic performance. *Imagination, Cognition and Personality*, 34 (3), 270-290. DOI: <https://doi.org/10.1177/0276236614568638>
- Martowska, K. (2014). Temperamental determinants of social competencies. *Polish Psychological Bulletin*, 45 (2), 128-133. DOI: <https://doi.org/10.2478/ppb-2014-0017>
- Ndou, V., Mele, G., Del Vecchio, P. (2018). Entrepreneurship education in tourism: an investigation among European Universities. *Journal of Hospitality, Leisure, Sport and Tourism Education*, 25. DOI: <https://doi.org/10.1016/j.jhlste.2018.10.003>
- Panitz, T. (1999). *Collaborative versus cooperative learning: A comparison of the two concepts which will help us understand the underlying nature of interactive learning*. Retrieved from: https://pdfs.semanticscholar.org/82fe/2f093ed061f192e7e5fa44db8588d0f48a9a.pdf?_ga=2.43844709.198895979.1585928208-726482439.1585928208 (20.11.2019).
- Paraskeva, F., Mysirlaki, S., Papagianni, A. (2010). Multiplayer online games as educational tools: Facing new challenges in learning. *Computers and Education*, 54 (2), 498-505. DOI: <https://doi.org/10.1016/j.compedu.2009.09.001>
- Pauschenwein, J., Goldgruber, E., Sfiri, A. (2013). The identification of the potential of game-based learning in vocational education within the context of the project 'Play the Learning Game'. *International Journal of Emerging Technologies in Learning*, 8 (1), 20-23. DOI: <https://doi.org/http://dx.doi.org/10.3991/ijet.v8i1.2359>
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93, 223-231. DOI: <https://doi.org/10.1002/j.2168-9830.2004.tb00809.x>
- Recommendation of the European Parliament and the Council of 18 December 2006 on key competences for lifelong learning* (2006). Dziennik Urzędowy Unii Europejskiej, 2006/962/E. Retrieved from: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32006H0962> (18.10.2019).
- Roisin, D., Fitzmaurice, M. (2005). Collaborative project-based learning and problem-based learning in higher education: A consideration of tutor and student role in learner-focused strategies. In: G. O'Neill, S. Moore, B. McMullin (eds), *Emerging issues in the practice of University Learning and Teaching* (pp. 87-98). Dublin: AISHE/HEA. DOI: <https://doi.org/10.1017/CBO9781107415324.004>
- Rouzrokh, M., Muldoon, M., Torabian, P., Mair, H. (2017). The memory-work sessions: Exploring critical pedagogy in tourism. *Journal of Hospitality, Leisure, Sport and Tourism Education*, 21, 163-173. DOI: <https://doi.org/10.1016/j.jhlste.2017.08.006>
- Runge, J. (2006). *Metody badań w geografii społeczno-ekonomicznej. Elementy metodologii, wybrane narzędzia badawcze*. Katowice: Wydawnictwo Uniwersytetu Śląskiego.
- Saridaki, M., Gouscos, D., Meimaris, M. (2006). Digital games-based instructional design for students with special education needs: Practical findings and lessons learnt. *The 4th European Conference on Game Based Learning*, 343-350.
- Savenye, W.C., Robinson, R.S. (2005). Using qualitative research methods in higher education. *Journal of Computing in Higher Education*, 16 (2), 65-95. DOI: <https://doi.org/10.1007/BF02961475>
- Schedule project – significance of competition in higher education* (2015). Retrieved from: <http://schedule.edu.pl/> (12.11.2019).
- Sigala, M. (2002). The evolution of internet pedagogy: Benefits for tourism and hospitality education. *The Journal of Hospitality, Leisure, Sport and Tourism Education*, 1 (2), 27-42. DOI: <https://doi.org/10.3794/johlste.12.4>
- Sigala, M., Baum, T. (2003). Trends and issues in tourism and hospitality higher education: Visioning the future. *Tourism and Hospitality Research*, 4 (4), 367-376. DOI: <https://doi.org/10.1177/146735840300400409>
- Sylla, M., Chruściński, J., Drużyńska, P., Płóciennik, P., Osak, W. (2015). Analiza wybranych czynników rozwoju turystyki MICE na tle potencjału Łodzi. *Turyzm/Tourism*, 25 (2), 123-131.
- Virvou, M., Katsionis, G. (2008). On the usability and likeability of virtual reality games for education: The case of VR-ENGAGE. *Computers and Education*, 50 (1), 154-178. DOI: <https://doi.org/10.1016/j.compedu.2006.04.004>
- Woltering, V., Herrler, A., Spitzer, K., Spreckelsen, C. (2009). Blended learning positively affects students' satisfaction and the role of the tutor in the problem-based learning process: Results of a mixed-method evaluation. *Advances in Health Sciences Education*, 14 (725). DOI: <https://doi.org/10.1007/s10459-009-9154-6>

Article received:
27 January 2020
Accpeted:
6 May 2020