Sparks

GAMIFICATION AND GAME-BASED LEARNING

BEST PRACTICES AND **REQUIREMENTS** FOR **DIGITAL ENVIRONMENTS**

Poland

Strategic Partnership for Digital Education Readiness
Co-funded by the Erasmus+ Programme of the EU

Game-based Learning: best practices and requirements for digital environments

NATIONAL REPORT - POLAND

Center for Innovative Education (CIE)

Project Information

Project title	Sparks
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Project website	www.projectsparks.eu
Project Coordinator	Lascò srl [IT]
Project Partners	Bexley C-Level IT [RO]
	Center for Innovative Education [PL]
	ECOS-Cooperativa de Educação, Cooperação e Desenvolvimento, CRL [PT]
	Femxa Formación S.L.U. [SP]
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Introduction

The Sparks project

The COVID-19 pandemic had a significant impact on the delivery of Education and Training all over the world: almost 1.6 billion learners from pre-primary to tertiary education, including VET, were affected (UNESCO, "COVID-19 Impact on Education", 2020), while education and training providers have been forced to adapt to digital tools to maintain services to learners. The pandemic caused to students a great loss due to the difficulty in re-engaging with education activities; their demotivation as they fall further behind; the curbing of their educational aspirations due to the uncertainty of the learning environment (OECD, "Education and COVID-19: Focusing on the long-term impact of school closures", 2020).

In this context, Sparks, a Partnership for Digital Education Readiness project, co-founded by the Erasmus Plus Programme of the European Union and implemented by six organizations from Greece, Italy, Spain, Poland, Portugal and Romania, aims to develop a new Conceptual Framework for Game-Based e-Learning Programs and E-Learning platform to let VET providers deliver innovative online learning experiences with the use of gamification, and boost their learners' motivation and engagement in learning.

The transnational research of Best Practices and requirements in digital environments

The transnational research developed gathers best practices and requirements for Digital Environments of game-based learning and gamification across the six European countries: Spain, Greece, Poland, Italy, Romania, and Portugal.

The research lead by Femxa S.L.U has followed three phases. Firstly, the identification and collection of 48 best practices in game-based learning and gamification experiences, following a unify common criteria tailor designed for the Sparks Project. Secondly, the development of an online survey as a quantitative research tool to validate the key game mechanics, dynamics, components, and game features found as success factors of the best practices collected. The survey was disseminated in the six countries to collect the input of 304 experts in in education and training, validating with incredibly successful results the best practices. None of the key elements included in the survey received an average below an 83% of high ratings (4 or 5).

Thistly, ten Focus Groups aiming at gathering the requirements and needs in digital environments of the VET providers and learners. The activities were celebrated with 144 educators and learners from different backgrounds of the VET community from the six EU countries, that hosted 24 participants each. Lastly, the best practices and validated game features, as well as the results of the discussions developed during the Focus Groups, were comparatively analyse by the expert researchers of the six organizations, concluding in this transitional final report

The results will be used by the transnational research team to identify the process and system features and the game elements to transfer into a Conceptual Framework for Game-based e-Learning Programs.

Best Practices

Each partner organisation analysed the best practices in game-based learning and gamification for education and training in their country.

The definitions adopted by the research team for "game-based learning" and "gamification" are the following:

- "**Game-Based Learning** refers to the borrowing of certain gaming principles and applying them to real-life settings to engage users" (Trybus, 2015);

- "**Gamification** is the use of game elements and game design techniques in non-game contexts" (Werbach, 2012).

The following pages report the results of the analysis carried out by CIE in Poland.

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1. DWF

Title	**Pirates**
Date	2019-2021
Authors	Dorota Wojno-Fidzińska
Geographical scope	Poland

Partners/Stakeholders

Zespół Szkolno-Przedszkolny w Kotli – School – Primary school Center in Kotla.

Target groups/Beneficiaries

Students of the primary school.

Context

Dorota Wojno-Fidzińska has been a teacher of early childhood education for 34 years. She often tried to use interesting and new teaching methods when working with children. When selecting methods and forms of work for specific content, she do not only consider their attractiveness, but most of all features that characterize younger school-age children, i.e. openness and curiosity about the world, spontaneity in taking up new challenges, spontaneity and the need to act.

Objectives

Most of Dorota Wojno-Fidzińska's students from grade III love to play computer games, so the method of educational game, which is gamification, seems to be a suitable method for her. It triggers a lot of positive emotions, gives pleasure, gives children a sense of deciding about moving to the next stages (levels) and using lifebuoys, it allows you to fully engage in the action being performed (flow). In this case, her students mastered multiplication and division by solving various problems during the pirate ship expedition.

Process

Dorota Wojno-Fidzińska planned the gamification basing the plot of the game related to the experiences of children during a trip to Kościan on Piracka Island in the "Nenufar Club". She took on the role of an organizer and coordinator, such a superadmin [2] in the real world. She played the role of the captain of Zezowatej Mańka, who recruited volunteers for the ship "Seven Winds". With this ship, the Captain and the crew set out on a cruise to a mysterious island, where in an even more mysterious grotto was hidden the treasure of the cruel pirate Pierdzisław Grzmiący (a character invented by the animators of the "Nenufar Club" in Kościan). The caves with the treasure were guarded by the terrible Sirens. Everyone who joined the crew of Zezowatej Mańka had to complete seven tasks, for which

they could get magic beads and be promoted from an ordinary land rat to the higher ranks of the pirate career.

The collected beads made it possible to get to the grotto, because they had to be thrown into the sea. The sirens had to find them all or they would turn into sea foam. The more beads the pirate threw, the more time he had to take Pierdzisław's treasure.

Initially, 23 students from a class of 24 joined the game. But already in the second stage, all the students participated in the game. Before starting the gamification, the teacher informed my parents about the planned game and asked them for their support. All parents prepared costumes for the children (hats, scarves, eye bands, etc.), and the students invented pirate names. The teacher also dressed up as Captain for the duration of the game. Each student received a map with the stages of the expedition marked, and on the back of the map there was a description of the tasks assigned to each stage. On the maps, Dorota Wojno-Fidzińska also included the score (number of beads) for individual tasks and levels of promotion (reaching the next level) - she personally marked the beads on the maps. She planned the classes for three weeks, taking into account the class timetable, the next stages of the game were systematically held on Mondays, Wednesdays and Fridays. During these classes, students selected into permanent groups (friends) dressed up as pirates, started with singing and undertook tasks. Dorota Wojno-Fidzińska assessed the tasks on an ongoing basis and the children immediately received feedback on the number of beads and the degree of promotion. A student who failed could use a lifebuoy (I included this lifebuoy for 5 tasks). On the blackboard in the classroom, the teacher placed a table with the names of the children, the numbers of tasks and the number of beads received.

Results

Gamification requires the teacher's great commitment, careful thought and detailed development of the course of the game and planned activities. For three weeks, on Mondays, Wednesdays and Fridays, highly motivated students were happy to dress up as pirates and progress through the game. The motivation was so strong that out of 24 students, 17 were promoted to the highest rank of captain (among them, as many as eleven gained the maximum amount of 61p, and six from 57 to 60p).

Impact

Four students obtained the rank of caper and three of the boatswain. The students mobilized each other to act, during the breaks they asked each other about the multiplication tables. Certainly, the teacher will use this method more than once, not only during the implementation of content in the field of mathematical education, but also other education. Gamification makes didactic activities very attractive and encourages students to learn and triggers the need for cooperation, not fierce competition, because everyone can achieve success. However, full participation in the game is sometimes a problem for students with disabilities or other specific learning difficulties. These students are not always able to reach the highest level in the game, and differentiating the requirements and introducing tasks of different difficulty for the same number of points is somewhat detrimental to other participants in the game. Therefore, one should very carefully choose the content and tasks in gamification, especially at the first stage of education, in order to motivate children to make efforts and ensure their satisfaction with

the results obtained, and not to confirm them in failure, because they often cannot cope with failure.

Dorota Wojno-Fidzińska decided to carry out the material resulting from the content of the core curriculum for mathematical education:

1. Achievements in the use of numbers Student: a) adds and subtracts, multiplies and divides in memory, performs simple calculations, develops his own calculation strategy, correctly writes down the performed calculations, uses the equal sign, signs of four basic actions and parentheses, fluently multiplies and divides in the range of 100;
2. Achievements in reading mathematical texts: The student: a) analyzes and solves simple and selected complex text problems, determines what is given and unknown in the task, selects actions appropriate to the conditions of the task, arranges data, pictures, texts in a logical order, sees a mathematical problem, creates his own strategy for solving it.

Limitations

Available only in Polish.

Related resources/Links

https://www.mac.pl/aktualnosci/nauka-w-grze-czyli-gamifikacja-w-mojej-klasie
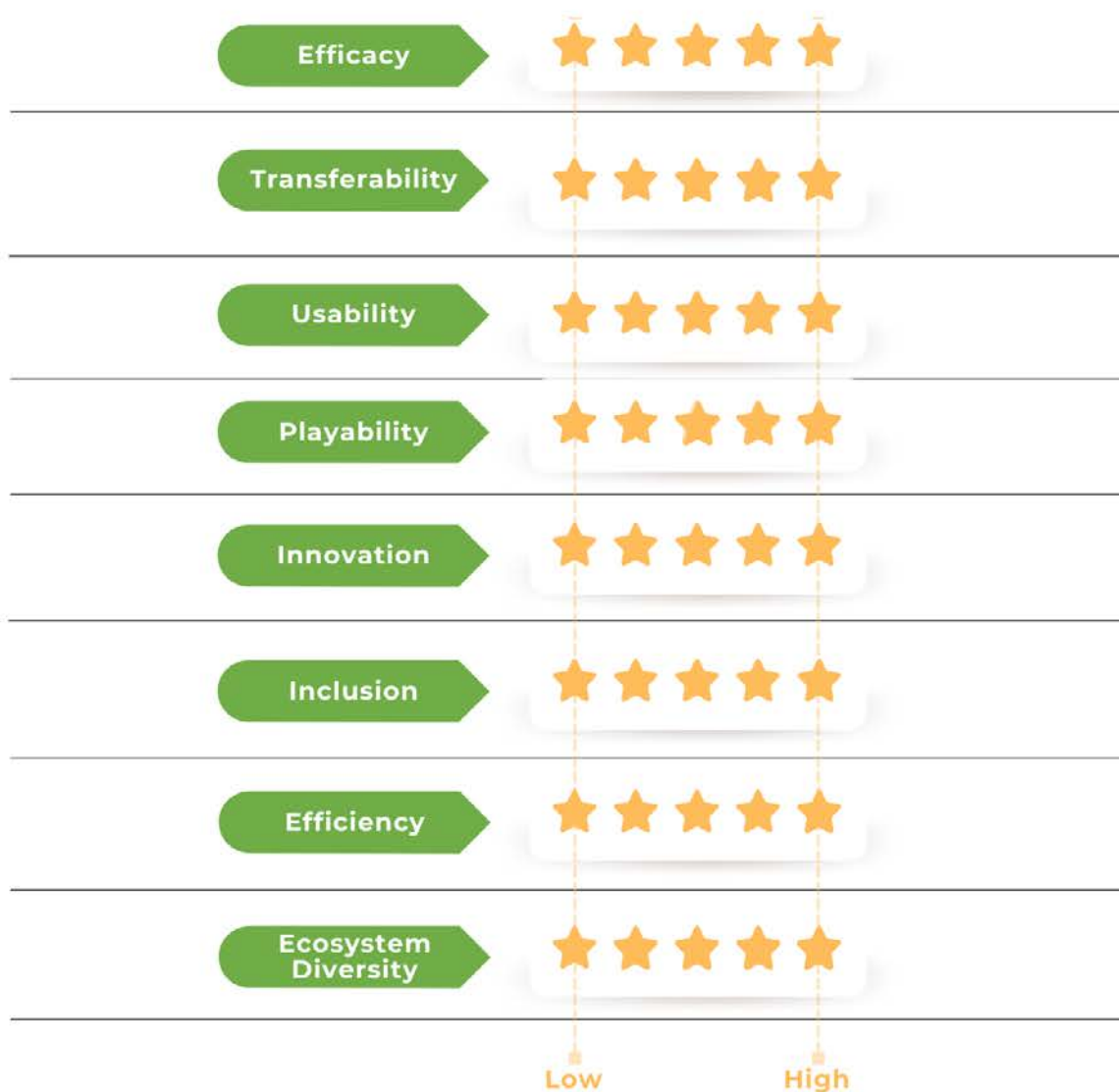
2. Gry i zabawy językowe

Title	**Gry i zabawy językowe - "Language games and activities"**
Date	2012
Authors	Iwona Stempek
Geographical scope	Poland
Target groups/Beneficiaries	

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Polish language students.

Context

Gamification as a solution when our creativity has been sleeping for a long time and has no intention of going into full standby mode. An inspiration and method of counteracting burnt-out syndrome in teachers.

Objectives

Applying gamification in teaching is quite a challenge, especially at the beginning. It consists in a complete remodeling of the subject or a specific range of the taught content so that it is as close as possible in its structure to the structure of the game. To do this, we need to create a story, invent the heroes of the game, provide them with challenges and missions, clearly define short- and long-term goals, as well as rules for assessing the progress of our students. The most important element of gamification is the autonomy of the student, who decides how he wants to achieve his educational goals.

Thus, gamification of the entire course seems to be quite a demanding and time-consuming process. We don't always have time for this. Therefore, at the beginning, it is simply worth introducing various types of games with specific educational goals to our lessons more often.

Process

We could choose from different types of games, but the most frequently used in language lessons were:
- Board games - you can use ready-made board games created for specific lessons in Polish step-by-step and Polish step-by-step Junior textbooks, or use other games available on the market that we often play in our free time, e.g. Dixit, Queue, At the end language, Such a life Most of these games we will of course have to adapt to the level of knowledge and needs of our students.
- Role playing - one of the most widespread educational techniques. It allows us to simulate reality, forces students to take action and express their own opinions, and develops the social skills of the game participants.
- Operating games - their purpose is to perform a specific task, e.g. planning a trip in advance or developing a multi-day diet.
- Sensorimotor games - using movement and senses. A culinary workshop is the best example here. In order to make traditional Polish (Russian!) Dumplings, students must demonstrate manual skills and good taste.
- Applications with quizzes - they are perfect for repetition lessons. Interactive quizzes are very well received not only by the younger generation of our students. Kahoot or Quizizz will help us introduce a lot of competition to the lesson.

Results

The following have been achieved:
1. Motivation - the need to solve a problem motivates students much more than the monotonous filling of gaps in the text. Especially if we add a little bit of competition to it.

2. Commitment - playing roles, carrying out various language projects or solving quizzes requires from the learners quite extensive, often interdisciplinary knowledge. Being able to demonstrate it, they are more likely to engage in language classes.
3. Competition and cooperation - sometimes even at the same time. Working with colleagues from their group and at the same time competing with the opposing team, they develop their social skills and cultural awareness. So important in multinational groups.
4. Emotions - according to neuroscientists, emotions are a filter that determines what information will be received and stored in our memory. The more emotions in the lesson, the greater the chance that something will stay in our students' minds
5. Having fun - ultimately and irreversibly removes boredom from our activities.

Impact

Many of the games proved to work great both for introducing new material and for revisions. Thanks to games, grammar is no longer associated with arduous exercises, and students quickly gain freedom in speaking.
"Language games and activities" make students forget about boredom in the classroom.

Success factors

"Language games" are closely correlated with the textbook "POLISH step by step 1", but you can easily reach for them while working with other books. The thematic index will be helpful in searching for particular issues.

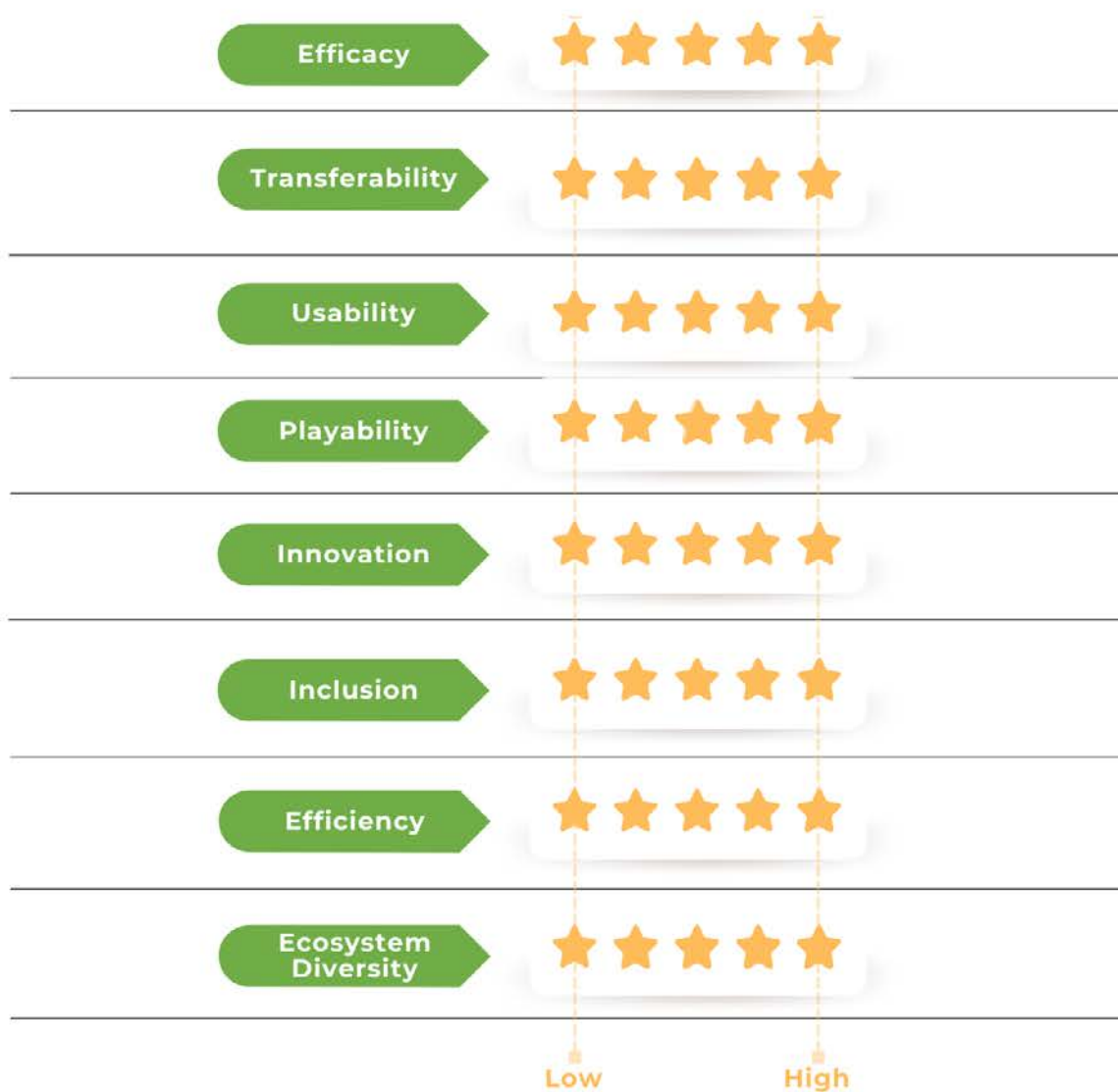## Limitations

Available only in Polish.

Related resources:
https://blog.e-polish.eu/category/dla-nauczyciela-jezyka-polskiego-dla-obcokrajowcow/

FINAL ASSESSMENT

Efficacy	★★★★★
Transferability	★★★★★
Usability	★★★★★
Playability	★★★★★
Innovation	★★★★★
Inclusion	★★★★★
Efficiency	★★★★★
Ecosystem Diversity	★★★★★

Low   High

3. Mentor

Title	MENTOR – strengthening transversal competencies through gamification workshops
Date	2015-2021
Authors	Joanna Bochniarz, Dorota Tomaszewicz, Center for Innovative Education
Geographical scope	Poland

Partners/Stakeholders

Center for Innovative Education, Association of Motor Industry Employers, Millward Brown, EFC Foundation.

Target groups/Beneficiaries

Teachers of 1st, 2nd and 3rd level of education, including VET teachers, school principals, 225 in total.

Context

In the age of robotics and artificial intelligence, it is essential that children acquire basic numeracy, reading and writing skills as well as digital skills as early as in preschool. This process should be commenced in an attractive and motivating manner, which has impact on further development of these skills. The MENTOR Program was created in 2014 as the answer to surveys conducted in 2013 and 2014, which analyzed teachers' support delivered to secondary education students in Polish cities, towns, and villages. The research included two surveys, in-depth analysis and policy recommendations for the major stakeholders. The first survey was organized in 2013, in collaboration with the EFC Foundation, among 2000 middle and high school students. Millward Brown ran the second survey in 2014 between teacher and student communities. Both surveys focused on support assessment received by students in cities, towns and villages by the high schools and middle schools The 2013 Survey included an evaluation of technical, inspirational and motivational supports that students received in school. A comparison of differences regarding students' access to school equipment in big cities comparing to smaller towns turned out to be irrelevant. However, answers regarding teachers' support in both students groups showed a far- reaching sense of seclusion expressed by students residing in smaller towns and villages. Students stressed insufficient support for developing their education and professional careers and lack positive, formative assessment in their schools. The youth from smaller towns and villages also rarely found an inspirational teacher on their learning path.

The 2014 Millward Brown field research ordered by the Center focused on how teachers and students understand the teacher's role in supporting students (included 385 students and teachers from 34 middle and high schools). The survey results once again showed that the youth lacked mostly positive self-image and self-confidence. This lack was

especially visible in answers regarding teachers' feedback on grades and their support in developing specific students' strengths. At the same time, students also indicated that their classes are run mostly in the same manner each time and that teachers seldom use innovative methods to attract their attention to particular topics.

The results of surveys conducted among teachers proved that teachers rarely have the knowledge and experience, which could enable them to lead the class in different ways. Meanwhile, they have a good understanding of the necessity to exchange their experiences with other teachers and the need for implementing more interactive methods of cooperation amongst students. Teachers also understand that such methods will help develop students' transversal competencies and play an important role in strengthening the teachers' positions as persons accompanying young people in their development.

Objectives

The MENTOR Program was designed with the participation of school and business communities to reach teachers of different potential through an innovative teachers' training approach. The aim of the Program is delivering knowledge to teachers based on the most recent human brain studies (neuroscience), and skills, including modern learning techniques and their applications from all over the world. This way MENTOR prepares teachers to meet the 21st century challenge of them equipping students with a balance between knowledge, skills, particularly soft skills, and proactive attitudes, enabling them to enter the labor market effectively and to become responsible, proactive citizens the same time.

The present time educators are willing to fulfill other, more important task as students' mentors. The program aims at preparing teachers to hold such role. During MENTOR educators learn self-motivation methods, practice tools helping define strengths in every child and supporting development of individual education and career paths of the youth.

Schools, as well as entrepreneur communities, not only in Poland, are convinced that during the learning process young people should develop skills that include creativity, risk-taking, problem-solving, teamwork, communication, adaptation and entrepreneurship.

Therefore the education level and professional development of already working teachers must be improved. A greater emphasis must be laid on preparation of carrying out more complicated tasks for students' learning process. It is expected that teachers should be innovative, creative, and flexible to quickly react to emerging changes and to choose the best solutions for their students.

MENTOR is realized within the workshop mode with use of playing devices like Dixit and music instruments which help achieve the objectives of this programme.

Process

The teachers spend 64 hours together during those workshops. Trainers running the MENTOR workshops are chosen with great care. They are all professional trainers with over 5 years experience, representing a deep knowledge and rich experience as teachers. They have previously delivered workshops to teacher groups and they are specialized in the area they address in their workshops.

The MENTOR workshops do not deliver just knowledge, but - most importantly - they require teachers' active participation in all modules and serve as a forum for exchanging experiences among participants. The workshops of the MENTOR program consist of five

topical modules, which complement each other. All of them are based on an innovative approach capitalizing on the latest achievements in theory and practice of developing self-motivation, identifying talents, applying neuroscience to education and responding to challenges from a changing global labor market. The effectiveness of the implemented methods largely depends upon modern tools used in practice and openness to the experience of the workshops' participants.

When participating in games proposed by the trainers, teachers experience cooperation challenges, such as good communication and feed back, opening to new ideas and expand their creativity. This experience builds a special bond between them. Based on it educators are more willing to engage in the learning process. The focus of teachers' participation is clearly explained each time.

Example of the games used:

Cards are used to help teachers speak up about emotions engaged in their job.

Music instruments are used for the teachers to strengthen their cooperation competencies.

Construction materials are used for the teachers to express their ideas of remodeling teaching experience and school environment to accommodate Mentor's role played against students.

There is no competition between the educators in the gamification. It has proven to be discouraging, particularly when education concentrates on difficult, challenging topics.

The reward system is based on the educator's engagement. The more teacher gets involved in the MENTOR games the more he/she achieves, most of all learns about his/her strengths, what motivates him/her, receives a positive feedback from the remaining teachers, and finally improves his/her teaching approach and techniques.

Since commencement in 2015, CIE has reviewed MENTOR method every year.

Results

Workshops including gamification and lectures conducted under the MENTOR Program are about to help teachers increase their performance by putting them on the higher level of professionalism. MENTOR classes help teachers to specify role of diagnosing particular talents among their students and preparing them to meet the needs of individual student and create a dedicated offer. MENTOR also stimulates discussions on how to create a proper space for learning while building a healthy atmosphere and teamwork, in which the young people can acquire important soft skills.

Discussions, workshops, and gamification exercises, carried out in interdisciplinary teams of teachers bound by a common passion, result in strengthening belief that their work is exceptional. Courses offered in the program also introduce participants to constructive approaches to the future of their changing jobs.

Further, teachers take part themselves in a game, wherein the purpose is to "dismantle" it into prime factors and create a universal model of game development used for work with students. The success of games in education arises from their compliance with two basic psychological needs of students: a sense of safety and the importance of what they are learning (interest in the content and engagement).

Moreover, if students have fun in a game activity, fear disappears (i.e. of depreciating evaluation), and if they are interested in a game, what they learn automatically becomes important to them. Workshop participants are provided with a forum to discuss ideas concerning new technologies, and in its course, to mention the games they already use in their work with students.

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It is easy to notice the value of the module and teachers' reflection on its topic because the largest share of their learning stems from the motivation to exchange their ideas, opinions, and experiences.

Impact

Independently, the Center for Innovative Education conducted research on how teachers participating in the pilot workshops understand their roles as mentors and persons delivering innovative methods of learning. The same time the Center examined their students (pre and post) to see if workshops brought change to their classrooms.

It turned out that teachers had a strong understanding of the necessity to exchange their experiences with other teachers and a need for implementing more interactive methods of cooperation with students, which will help develop students' soft skills and other competencies. Their students put most of the emphasis on improvement of classroom atmosphere, but bringing new learning techniques were also noticed frequently. So we can deliberate MENTOR program impact not only in terms of 225 teachers and school principals, but also their students gamification had an impact on.

It is essential for all of us involved in education that we understand the necessity of educational reforms as a challenge for us all. The MENTOR Program does this by involving participants of three sectors: public schools, private businesses and non- governmental organizations.

Testimonials:

"Thanks to the workshops, I have become convinced that the students need to be supported and given a chance. After the workshops, I intend to focus on a skillful approach to all students and will place a greater emphasis on their strengths."

"This is a new and innovative and, at the same time, very natural way of working with students. Everything happens in a very friendly atmosphere. It is important to build a responsive student – teacher relationship."

"I watched how my students responded to each other when working in groups, how they created the teams. A student who was normally withdrawn suddenly became the team leader. It was an amazing experience, providing information and guidance."

Success factors

Game elements, methodology and tools are easy to obtain and cheap. No institutional, economic or social factors are   necessary to replicate the MENTOR programme.

Limitations

Available only in Polish.
As a next step, the Ministry of National Education has expressed an interest in customizing and adapting the MENTOR programme on a wider scale.

Related resources: http://ciedu.eu/program-rozwoju-pedagogiki-mentor/

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	Low	High
Efficacy	★ ★ ★ ★ ★	
Transferability	★ ★ ★ ★ ★	
Usability	★ ★ ★ ★ ★	
Playability	★ ★ ★ ★ ★	
Innovation	★ ★ ★ ★ ★	
Inclusion	★ ★ ★ ★ ★	
Efficiency	★ ★ ★ ★ ★	
Ecosystem Diversity	★ ★ ★ ★ ★	
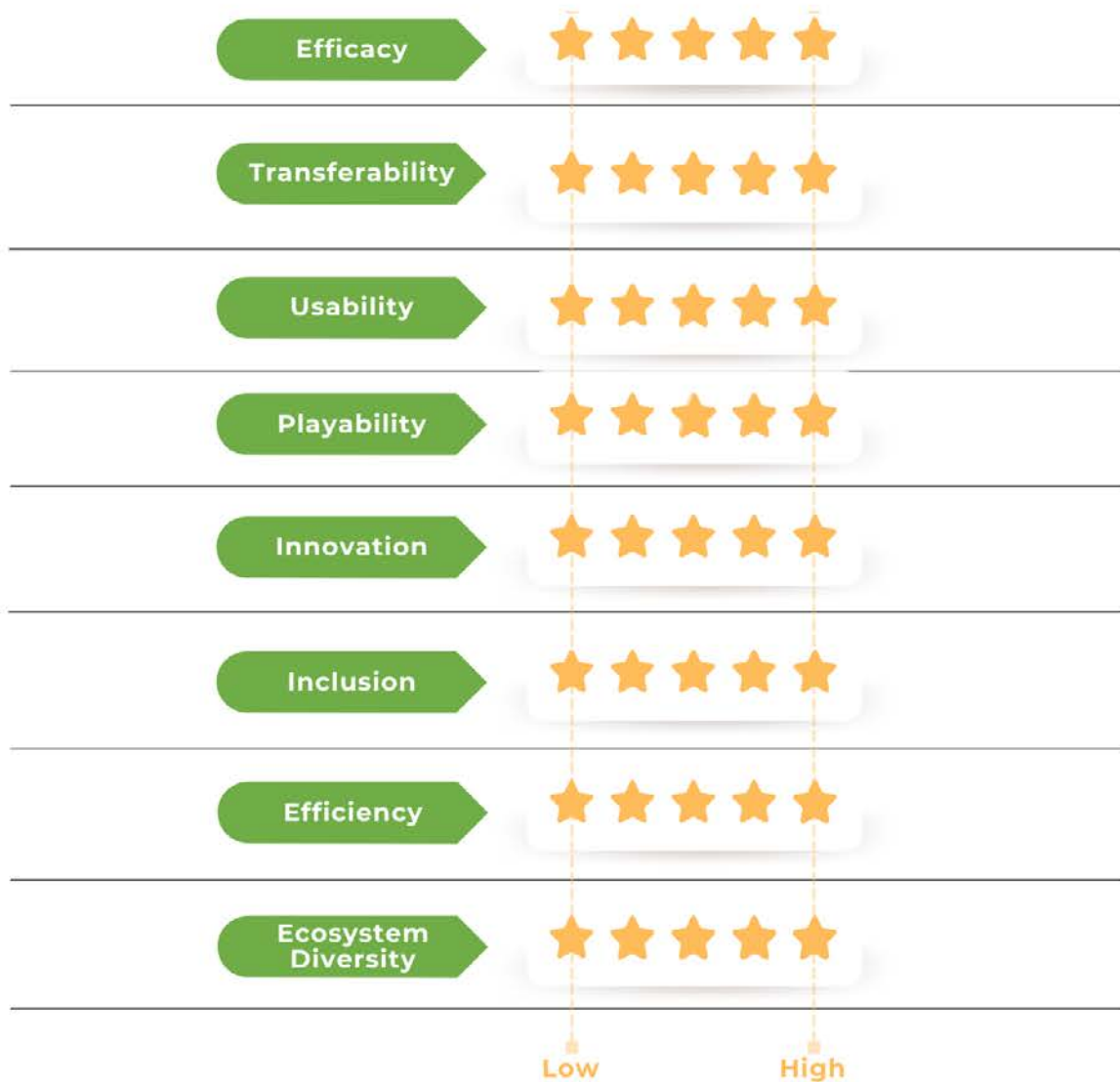
4. Apel-Appeal

Title	**Apel-Appeal**
Date	2017
Authors	Patryk Kleczkowski
Geographical scope	Poland

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Target groups/Beneficiaries

Students of highschools.

Context

As every year, we expected an appeal to celebrate the National Independence Day. We were asked to come with the students to the gym. Instead of an appeal, we got a card with instructions and an invitation to play. The clock has started. Students entered different classrooms. There, other students were waiting for them, asking questions about Poland regaining independence after 123 years. The questions were prepared much earlier by the history teacher and the students themselves. The idea was this: instead of a traditional appeal, let's organize an engaging game. Each group collected points. The game was educational, because the questions (in the form of a test) were related to each other, and when the students gave the wrong answer, they immediately found out which one was correct. On that day, instead of an appeal involving only those organizing it, there was a game in which the whole school took part. This is what it is all about. For a chance to learn something through play. I perfectly remember that the same teacher took all the students and teachers to the largest classroom in the school a year earlier and read the information about Poland regaining independence from a card. I definitely prefer this year's celebration of this holiday.

Objectives

It was right after college when I started teaching. While discussing William Shakespeare's Macbeth, someone said, "Mr. Patrick, we cannot remember these heroes." I understood it perfectly. The easiest way to remember is Macbeth and Lady Macbeth, but how to remember Banka, Fleance, Duncan, Malkolm, Donalbein or Makduf? A game came to my aid. A dozen or so months earlier, in the camps, we played "Mafia" with young people. It is a much-liked role-playing game in which the interaction between players, the ability to convince and bluff is important. It is about the players discovering who belongs to the mafia. Only the city can defeat the mafia. Both groups are constantly trying to unmask their opponent. The game inspired me to transform the heroes from "Mafia" into heroes from Macbeth. Today, for each one: "Mr. Patrick, we cannot remember these heroes ..." I reply: "Do you like games?" And the gamification begins. Friends, feedback and fun Agnieszka Bilska, an English teacher promoting a technology-friendly school, believes that there are three things in games that make us love them so much: friends, feedback and fun. - The games connect the group, so they are integrative (friends). - There are winners and defeated in games, so we immediately know what the effect of our actions is (feedback) .- Games are primarily fun, with which we can learn something (fun).

Process

How to gamify a lesson? - Start by setting a goal. Think what you want to convey, what you want to teach. After all, every game has to be about something. What is yours about? - Determine what activities or skills are required to progress through the game. - Define who the students are fighting, against whom and for what. - Determine what determines the win.

Results

In gamified lessons, students learn through action. Such an action can be a task to be solved, a riddle, an exercise, a puzzle. Each solution of a task causes that certain skills are practiced (in the world of games, skills are called) and the next task with a higher difficulty level (next level) is moved. Experts call it active science. Each teacher can turn the tasks that students give their students to solve during the lesson into a game of some kind. It is enough to add a plot to the tasks, i.e. an action. In one team In gamified lessons, interaction between students is important. Each of them, at the right moment in the lesson, is both a student and a teacher. Being together in a group, on one team, makes the students exchange their knowledge and skills. Learning together makes young people assume and play different roles - the role of a leader, facilitator or mentor. Competing with other groups is a great way to observe our students' thinking styles and ways of acting.

Impact

Emotions - a way to get better results Recall the best lessons you participated in when you were still a student. Think of the best lessons you taught when you became a teacher. Perhaps you remember her so well because of your emotions.

Success factors

Because it is emotions, according to Michał Pasterski, founder of the Conscious Education Foundation, that have a strong influence on the operation of our memory. Gamified lessons are a way to learn through emotions. The games mean that the material in question is not indifferent, as it is related to commitment. What motivates students to work during such lessons? Curiosity and the will to win. All of this creates emotions, and they make education better.

Limitations

Available only in Polish.

Related resources: http://patrykkleczkowski.pl/blog/gamifikacja-dolacz-gry/
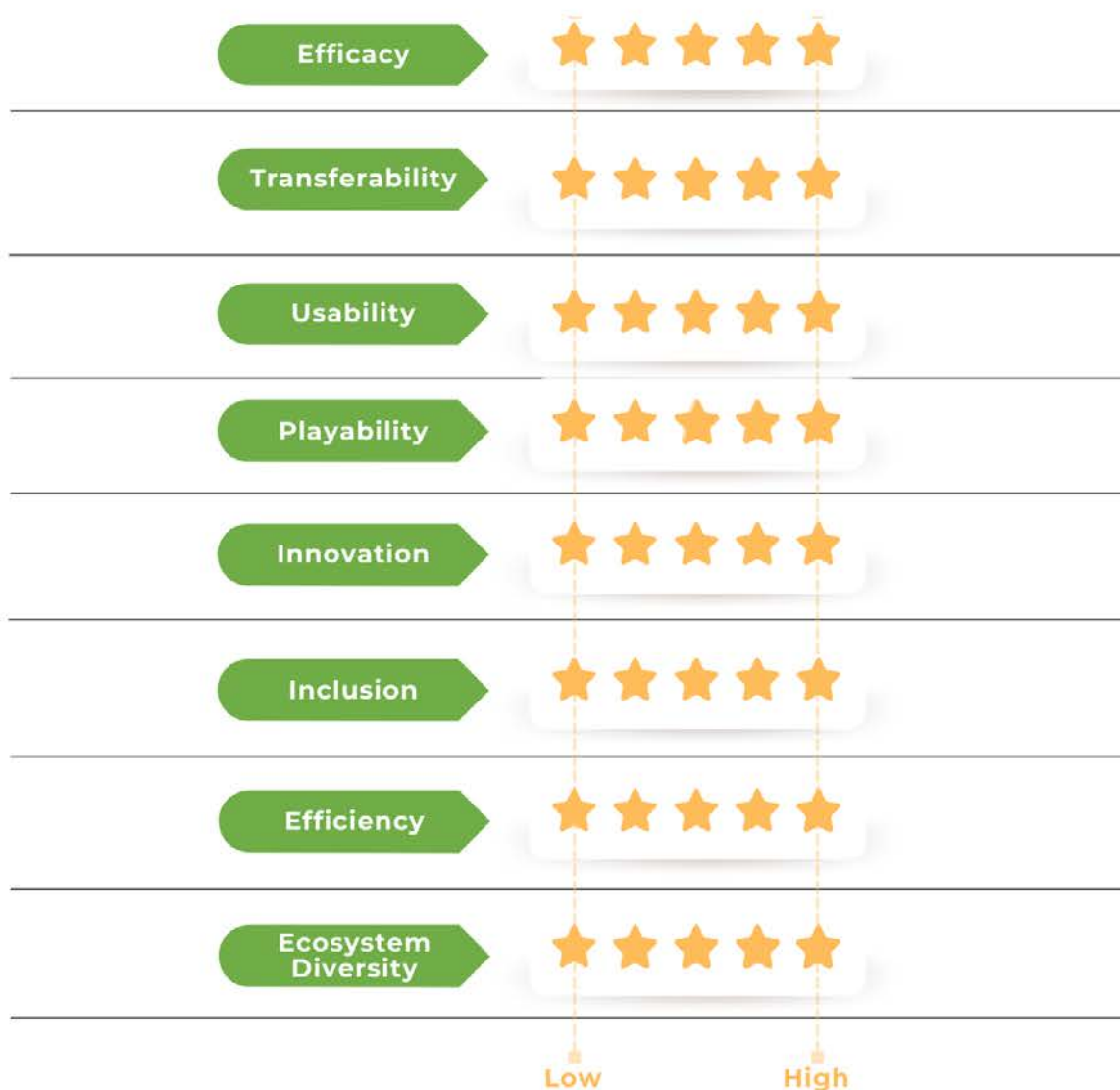
5. Outdoor Learning

Title	Outdoor Learning - development of personal and social skills during forest tourist expeditions.
Date	March 2019 - August 2021
Authors	Jakub Dorosz - Center for Innovative Education
Geographical scope	Poland

Partners/Stakeholders

Center for Innovative Education.

Target groups/Beneficiaries

Participants of FOLM projects "From Outdoor to Labor Market" and two similar projects; "Moc Warmii" and "Siła Bieszczad" are people who are professionally inactive and who do not continue their education. The projects involve participants of both genders and age groups; FOLM – from the age of 18 to 29, and the projects "Moc Warmii" and "Siła Bieszczad" - from the age of 25.

Context

An important context concerning the beneficiaries of project activities implemented by CIE is the broadly understood Polish education system and the social assistance system. For all beneficiaries, it is an education system, and for some, it is joined by the aforementioned aid system. Each of them has a significant impact, both personal and social, both in terms of shaping a young person and his attempts to function independently and independently in society.

The education system in force in Poland significantly contributes to the perception of the world by young people from the perspective of solely external motivation. A multi-year educational path, focused on higher education, in the understanding of many young people, does not have to guarantee broader perspectives and independence. Among the representatives of the young generation, there was a conviction that it is not worth learning and developing, especially in the humanities, and that in order to cope well in life, education should be completed as early as possible. It is important that school education is largely based on theoretical message, and the assessment depends mainly on the ability to remember cold facts, and not on understanding the processes behind them.

The social welfare system most often contributes to the aggravation of socially unfavorable phenomena - it teaches helplessness and consolidates a passive attitude and striving to satisfy needs based on applications for financial assistance. Direct observations of project implementers who have experience in conducting development classes commissioned by Social Assistance Centers in their professional achievements show that attempts at social and professional activation offered to the unemployed take the form of transactions; participation in the project - in return for the allowance granted.

Objectives

The value of the practice used is to create an opportunity for the group to take authentic action - not theory, but practice, immediately showing the results of the efforts made, the success of which depends on the high personal commitment of all participants, including demonstrating actual decision-making, consistent pursuit of the goal, initiative and creativity. This task is by no means banal and abstract. It is complex, multi-stage and difficult to implement. This practice takes the form of a challenge faced by the group in the forest as part of the 7-day Outdoor Education excursion. It is also a surprise for the participants, as it is not previously announced in the weekly schedule. Thus, its essential, form and circumstances in which this event occurs are consistent with each other and strictly fit into the main goal.

Process

This challenge is called "Search and Rescue" (SAR) and in the weekly itinerary of the expedition, it was placed on the fifth day. This placement of the challenge in the time schedule of the week is important as an appropriate level of trust and mutual understanding of team members is essential. The trainers' observations show that the fifth day is the optimal moment, also in terms of breaking the current routine, and at the same time it is the climax in terms of teamwork and substantive individual performance. We understand this concept broadly - both as the ability to cope with forest conditions and the actual detachment from difficulties left in everyday life, as well as achieving a level of reflectiveness within the discussed topics of group sessions and individual sessions.

Additionally, the SAR Action, in the context of the program weekly schedule, is coupled with group sessions, e.g. on the day of its conduct, the morning group session is devoted to the subject of finding solutions by making attempts, analyzing them, formulating conclusions and implementing improvements, which is an ideal introduction to presented to the group a moment later the challenges.

The SAR action begins in the course of routine camp activities. One of the trainers picks up the phone and, by turning on the loudspeaker mode, passes it to the hand of a randomly encountered participant - the action starts and runs according to the following scheme (described below in a simplified way):

1. The group receives a telephone call for help from one of the trainers.

The trainer playing the role of a lost person (informing that this is an exercise) provides residual information; "I'm in the forest, I don't know exactly where, but somewhere in the area ... [gives a general location on the map], I can't move and my leg hurts a lot ..." After that, the telephone connection is broken.

2. Initial group organization and guidelines for the exercise.

Organization of the group is usually chaotic and incomplete. This short stage ends with the group being stopped by the trainer still at the camp. The trainer through the questions asked, determines the rules for carrying out the exercise as follows;

- are you sure you are properly prepared to set off into the forest to find and help the victim?
- do you have a plan and does everyone know what they are responsible for?
- have you taken care of your own safety?
- my presence from now on is only to protect you, but I cannot assist directly in this task. Its success is entirely up to you, and the duration of the task is unlimited. You are not a professional search team and nobody expects you to be as effective as rescuers, but please get involved by imagining that this is a real situation and the only way to help a lost person is you.
- I will follow you all the time, observe and listen to make notes so that we can analyze the exercise together and draw constructive conclusions.

3. Re-analysis of the situation and organization of the group.

The participants, acquiring a full picture of the challenge they have faced and based on the experience gained so far, again prepare the equipment in a more comprehensive way and make attempts to define an action plan, arrange variants as well as assign roles and functions. They act entirely independently and at their own discretion in this regard.

4. Searching (group solution stage).

Participants have the opportunity to implement their ideas for finding a lost person. With each subsequent attempt, they experience failure (they verify that their initial ideas were wrong), and the key to solving the situation, which they may not even be aware of directly

(consciously), is the ability to draw conclusions from failures on an ongoing basis in order to introduce improvements that I will allow to develop a method (tactic) of effective search for a lost person.

At this stage, there are many dynamic phenomena in the manner and form of group cooperation, communication, leadership, delegating tasks, defining and updating the plan, variants and the search for new solutions. Group dynamics also applies to the interpersonal plane, including, for example, such phenomena as taking responsibility for the situation and the team, showing mutual support, giving space for presenting ideas and analyzing them rationally, as well as presenting various attitudes that are not conducive to effective action.

5. Possible crisis and reorganization.

The leader (trainer) of the SAR exercise allows the group to independently search for solutions as long as;

(a) the group acts methodically, even if the plan is not right, but the group determines it and follows the agreed guidelines;

(b) it is safe for the group process and team cohesion, i.e. emotions are kept in check, there is no escalation of tensions that could turn into an open conflict between the participants,

(c) the tutor was able to look at each participant of the exercise separately in order to notice in his attitude / action and note the feature that contributes to the final success in the exercise (gathering information on the positive impact of each participant on the course of the action),

(d) the exercise timeframe set by the Outdoor Education team is not exceeded.

The personal sense of the trainer is important in determining the limit to which the group can be allowed to experience tensions, pressure and stress resulting e.g. from the passage of time (even though the group does not have an imposed time frame) and from successive failures and mistakes. It is worth continuing the exercise until such experiences constitute a safe and constructive enrichment for the team experience.

A break is ordered at the stage when the trainer deems it justified. Participants have the opportunity to drink water, eat a snack, stay in silence for a while, then the tutor briefly summarizes the situation, providing the following information and tips:

- appreciates and congratulates the group on their commitment, despite the lack of some of the technical skills, tools and experience of the professional search and rescue team;

- compiles certain (verified) information - what is known for certain, what is a thesis and what is not known;

- refers to the adopted search method or its elements that will allow the group to work more effectively;

- indicates the key technical skills (e.g. the ability to verify one's own position on the map or the ability to guide the line formation, to keep the march axis moving towards the azimuth);

- possibly responds to a question from participants regarding the missing element of technical knowledge (e.g. whether the interpretation of topographic signs on the map is correct);

- in a situation where there is a need, the tutor can also refer to the tension in the group and the experienced difficulties in such a way as to be able to relieve them, manage them safely or, as a last resort, even postpone until the end of the exercise (e.g. unjustified polemics between participants).

6. Completion of the exercise.

The end of the exercise should always consist in the actual finding of the lost person. If the group is not able to independently develop an effective method of reaching the area where the lost person is located in order to implement an effective search of a small area of the forest in the next step, then the leader should support their activities in one or more possible ways:
- implement the option of a "specific guidance question" specifying that the group has 3 technical / verification questions, which it can do and which it will receive answers to,
- suggest a specific technical improvement,
- discreetly communicate with the lost person, sending them an SMS with a request to start an active call for help using a whistle,

7. Summary of the exercise
The SAR exercise, thanks to the fact that the trainer keeps detailed notes on the basis of a factual report, can be thoroughly discussed and summarized. Examples of notes that may appear:
- "Time. 09:55 - Before leaving the camp, the group leader makes sure that everyone has a supply of water, alarm whistles, flashlights and appropriate clothing "
- "Time. 10:15 - Peter suggests to the leader to once again measure the distance from the intersection of roads in the forest, thus correcting the earlier mistake ",
- "Time. 10:20 After correcting the navigator, Anna effectively provides information about the new bearing to all team members, thanks to which everyone received the current bearing ",
- "Time. 10:53 Michael mistakenly recognized the wrong section of the road, instead of recognizing the road to the right, he went left "etc.).

A detailed summary of the action is included in the course of the evening group session on the fifth day, which is devoted to the "Feedback". In its tact, a distinction is made between positive, negative and constructive feedback, the latter of which will be automatically carried out based on the notes of the SAR trainer. This takes place in the form of a factual account, from the perspective of the observer, who makes a reservation that he could not capture all the important phenomena, so the participants can complete them at key moments, explain them and refer to his report. The instructor's account is a message that is not subject to personal assessment (and even less "accounting") and concerns information; what helped to find the victim and why and what did not help and why.

The most important thing for a safe summary of the exercise is that the trainer is sure that he has the appropriate material that will provide an opportunity to comment on the activities of each participant in the exercise and that the scope cited will include, among others, reinforcement information; that is, referring to a positive action - attitude, action, idea, suggestion of the participant that worked in favor of the course of the SAR action and was actually needed, it did matter.

Results

Conducting the "Action SAR" exercise during Outdoor Education expeditions deepens all the substantive topics that are implemented during the expedition with participants, both during group sessions, as well as learning technical skills - forestry (e.g. navigation, teamwork with separate functions, habits regarding the overall safety of the group).
As part of group sessions, the trainers discuss with participants issues related to, among others, teamwork and the role of a leader, interpersonal communication, attitudes in the face of tasks and challenges, including attitudes and roles adopted in the group, motivation, transition between the so-called "comfort and development zones", such as

also the subject of searching for solutions, the influence of emotions on actions taken, coping with fears, setting goals and ways of achieving them. Each of the above-mentioned slogans describing the issues of the session is naturally reflected among people participating in the SAR exercise, which for Outdoor Education trainers is a work tool, and for many participants becomes obvious during the group summary of the exercise, i.e. the evening session entitled Feedback and / or individual interviews where the participant shares his experiences and conclusions after the exercise with his personal trainer.

In addition, the exercise creates an opportunity to intensify and deepen the individual work with the participant - in relation to the topics he has reported so far, or in the case of particularly closed people, it may be the last chance during a week-long trip to raise an important topic related to the experiences gained during the exercise. . The SAR action is an interesting diagnostic tool which, through its intensification, can provide trainers with many reflections on the participants and the attitudes they present in a short time.

The form of the exercise, through its complexity and embedding in real, even tangible conditions, activates a specific type of perception in each person. Everything that happens during the exercise is authentic; emotions, stress, walking distances in the forest, sore legs, mosquito bites, and sometimes a feeling of hunger.

Without specific orders or instructions from the SAR trainer, it is obvious for everyone to take the initiative and demonstrate the ability to improvise and think out of the box. The exercise also requires an assessment and then a conscious risk taking (e.g. in terms of actually getting lost in the forest). An important role is also played by the need to put the good of the group and the good task above one's own sense of physical and mental discomfort, which must occur within healthy and safe boundaries for the participant. All this is embedded in the scale of a group that has so far lived together for several days in the forest and is close to each other. There is no element of competition between artificially divided teams, although there are often competing views and ideas for solving a given problem. Proper communication and using the potential of each person plays a special role in this context.

At the same time, the SAR action enables in-depth work on the resources of each participant, which is relatively easy to implement even in the case of closed, reticent people, who display a withdrawn attitude so far, because they, too, by taking part in the exercise, can positively demonstrate themselves, on their own initiative or on the basis of a request or recommendation of a team member, or as a last resort thanks to the suggestion of the SAR trainer.

Impact

Participants in the SAR exercise faced a wide range of feelings each time; initially from surprise and interest in something new, through verification of initial ideas and realizing the scale of the project, then through frustration and a feeling of helplessness, to working through the crisis and taking up the challenge again (motivation) and a sense of success and relief, including relief at the summing-up stage the exercise, which takes place without "holding the guilty account", but only by referring to the facts, indicates what should have been done differently for greater effectiveness, including how each person contributed to the success and at what point did they do the right thing.

With the correct implementation of this ambitious exercise, you can be sure that each person will come out of this experience strengthened, because:

- did not get discouraged at the start, despite the lack of specialist experience and technical skills required in this type of situations (took up the challenge);
- did not give up during the exercise, and even when it did, she again found strength and willingness to continue the very tedious task;
- looked for solutions and indicated good solutions / correct techniques a certain number of times;
- in the case of people not taking on roles, such as a leader, navigator or other characteristic of the group, was a team member who effectively and precisely carried out the orders of others, thus giving the processes a course and actually implementing the proposed plan;
- correctly communicated about what she sees, what she does, what she needs to perform the task;
- supported other people, ensured the safety of the group, its cohesion or the equipment used;
- was able to stop pushing through her own ideas, in situations where the ideas of other people created a greater chance of finding the lost person or she consistently defended her beliefs, which finally turned out to be correct;
- even in the case of people who, as an exception, would have to stay in the camp (e.g. in the event of a previous leg injury, which would limit the ability of the entire team to operate in the course of the action), you can and should provide constructive feedback, including paying attention to the value provided for the team eg the ability to make a responsible decision about withdrawing from an action. It should be ensured that such a person could prove himself in a different, positive way, e.g. ask what he can do in the camp during the action, which would be beneficial for the group? It can be, for example, preparing a meal for the entire team, securing fuel or performing other works. The exercise must be based on the principle that, regardless of the development of events, everyone can be praised and should be praised.
- the specific scope of the summary may apply to people acting as a leader and deputy leader, as well as people responsible in the team for navigation (map, compass, distance measurements, orientation in the field, etc.), who bear the main burden of the most important decisions.

The acquired experience and constructive management of their own emotions and oneself against the background of the group make the participants of the exercise believe that they are people who can take up challenges and have a mechanism that allows them to complete staged tasks in order to reach the main goal, even in such a way. a difficult situation in which there is no precise information that needs to be verified by trial and error. Participants react lively during the action itself, as well as its summaries and during the next days spent on the expedition, when they refer to their experiences.

The SAR action is a specific pretext for everyone to positively demonstrate, engage, assume responsibility for the entire process or part of it, and at the same time to experience it under controlled conditions, in which even if the victim is not found, unlike to the actual loss of a person or other type of situation from everyday life (a challenge of a different kind), there will be no negative consequences. After all, it is only an exercise, and thus a safe space to experiment with your own skills, predispositions and weaknesses that cannot be assessed in a personal context.

Success factors

The key element for the implementation of the exercise is the tutor, i.e. the Outdoor Education trainer. It must be a person who meets the following requirements:
- is aware of group processes and phenomena accompanying the team during the implementation of difficult tasks;
- it is a sensitive and empathetic person who can read people's emotions and the mood of the group, and at the same time can constructively and without evaluating to the observed phenomena;
- is able to work on the resources of the participants; perceive them and name them or, if necessary, initiate in a subtle way such processes that will enable all its members to positively demonstrate themselves;
- has divisibility of attention and is able to simultaneously pay attention to many aspects (words and actions of participants, the actual location of the group in the field and its safety, keeping notes, telephone coordination with a lost person, etc.)
- has at least minimal experience in the field of forest skills in team movement in the field "in the direction" and "in the area", including extensive experience in the field of safe hiking (first aid basics, team management in the forest, planning and variants of activities, managing a group in a dynamic situation),
- experienced an identical challenge, i.e. participated in the SAR action as a participant who joined the task in the same way and searched for solutions for the same long time, despite the lack of experience, skills and information.

Limitations

The exercise should be properly arranged in the training team so that it will surprise the participants and its safe course should be planned. By providing the group with actual agency and decision-making, the SAR Trainer must be prepared to be flexible in the context of belaying the team, so that it is constantly safe. The trainer must be sure of the actual location of the group in the field throughout the exercise. This can be ensured, for example, on the basis of pre-prepared checkpoints introduced in the tourist GPS, which can be used during the exercise. The exercise must be based on other technical assumptions, such as for example implementation in an area with good mobile coverage. Outdoor Education participants do not have mobile phones with them, but telephone coordination in the coaching team is necessary. Another important assumption is that the group of participants is generally not split up.

Before starting the exercise, it should be decided whether, after finding the lost person, the exercise is to be continued in terms of first aid or not. Bad habits should not be perpetuated, so if the group did not have any previous classes on first aid or there is no time to introduce such an element during the SAR exercise, you should only find the lost one.

During the first four days of work with the participants of the expedition, the training team must develop a conviction that the described exercise remains possible with a given group, both in terms of the undisturbed process of working with participants, as well as conducting this type of activity in the forest while maintaining safety standards. For this purpose, it is necessary to monitor the atmosphere in the team, the relationships built and the level of mutual trust, compliance with technical safety rules and compliance with the group's contract.

Related resources

The above description of the "Search and rescue action" exercise is based on the many years of experience of the CIE Outdoor Education Trainer Team Coordinator - Jakub Dorosz. The creator of the exercise has a survival instructor license and varied, many years

of professional experience in the disciplines that are synthesized, among others as part of the practice described in this document, i.e. in the areas of:

- navigation, tactical and rescue activities carried out in a forested area (activities within the UNIVERSAL SURVIVAL company, including military and rescue training courses also for employees of uniformed services and numerous trips abroad to wild and desolate regions of the world);

- project classes, including proprietary programs in the field of addiction prevention based on the strategy of alternative activities and the formula of survival school(activity in the projects of the Municipal Team for Addiction Prevention and Therapy in Olsztyn);

- implementation of multi-day workshops devoted to deepening social skills as part of vocational activation projects (activities for Social Welfare Centers in the Warmia and Mazury region, in cooperation with the Research and Training Institute from Olsztyn);

- implementation of an 8-year community work program as a street pedagogue (street worker) in a social housing estate in Olsztyn (activity in the projects of the Municipal Team for Prevention and Treatment of Addictions in Olsztyn);

- implementation of numerous projects addressed to local communities, orphanages, youth detention center and commissioned by non-governmental organizations acting for the benefit of socially excluded people.

http://ciedu.eu/dla-uczestnikow/sila-bieszczad/

Sparks

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FINAL ASSESSMENT

Criterion	Rating	Comment
Efficacy	★★★★★	One of the best gamified programmes in Poland.
Transferability	★★★★★	Fully transferable to different environments, also legal, and diverse groups of participants.
Usability	★★★★★	Usability is mostly dependent upon preparation of the educator.
Playability	★★★★★	Complex game not easily played in. If well prepared can be beneficial to all players.
Innovation	★★★★★	In FOLM project countries (Ireland, Spain, Poland and UK) it is still very innovative and the educative part of the game makes it even more attractive.
Inclusion	★★★★★	CIE is testing this practice to be inclusive for persons with disabilities. It is inclusive for other minority groups.
Efficiency	★★★★★	This practice does not require digital environments nor substantial expenses to be implemented. The educational results are unique.
Ecosystem Diversity	★★★★★	The practice allows to use this gamification tool almost anywhere. limitations regard the natural environment and preparation of the educator.

Low　　　　High

6. Simulation teaching of the trainers academy

Title	**Simulation teaching of The Trainers Academy**
Date	June 2020 August 2021
Authors	Jakub Dorosz - Center for Innovative Education
Geographical scope	Poland

Partners/Stakeholders

Center for Innovative Education.

Target groups/Beneficiaries

The recipients of the training were candidates for the position of Education Trainer in Outdoor Education, recruited by CIE from among people with experience in work in the field of personal and social development and people with tourism experience. The methodological training that these people undergo is called the Trainers Academy, which lasts two weeks in total and is divided into three meetings.

Context

The context for the design and implementation of the described simulation was the need to conduct a comprehensive and in-depth methodological training, preparing selected candidates for work as an Outdoor Education Trainer, while ensuring the highest possible realism of classes. It should be noted that the scope of the training in question is complex and multi-threaded, and the job position and apprenticeship places extremely high demands on candidates for Outdoor Education trainers.

The Center for Innovative Education, which in the first years of its operation was the initiator and coordinator of activities for the creation and implementation of educational projects based on partner consortia, from July 2020 also assumed the operational scope of implementation of activities based on Outdoor Education (based on the model Edinburgh Outdoor Learning, adapted to Polish realities). Thus, in CIE there was a need to create from scratch, inter alia, a professional coaching team, prepared to conduct weekly camps in the forest for groups of 8-10 beneficiaries, and the necessary logistics facilities. This undertaking was planned in a relatively short time, which in the context of staff training forced their high intensity and effectiveness.

It is worth noting that the Outdoor Education trainer is a person who works in a team of 3, carrying out classes for groups of up to 10 people. The work is particularly intense, both physically and mentally, and each trainer must combine different types of expertise. First of all, he must have tourist and bushcraft preparation, guaranteeing his own comfort and safety during a week's stay in the forest, where the time schedule of the day is so tight that it does not leave too much space or does not leave it at all for free time.

Secondly, the trainer must be able, in the broad sense of the word, to secure the group and ensure its safety and comfort, including aspects such as protection against adverse weather conditions, feeding the group and securing it in warm fluids based on the fire, navigational knowledge of the location groups in the field, ensuring adequate comfort in

terms of hygiene, as well as efficient logistics and, if necessary, the ability to provide first aid. You also need the skills to properly organize and use a multi-element set of team equipment, food supplies, care and project documentation as well as the use of a logistic car while driving on difficult sections of dirt roads.

Thirdly, the trainer must be able to implement the substantive scope of work, which is carried out both at the group and individual level. This includes, among others, the ability to implement group sessions and conduct daily individual sessions, and sometimes the ability to manage various interpersonal difficulties, or to solve situations in which the principles of group cooperation are violated.

Objectives

CIE coaching training, as part of The "Trainers Academy" ("TA") lasts a total of 2 weeks and is divided into three parts.

The essence of the described challenge is to conduct the last and the most advanced stage of methodological training for

future Outdoor Education trainers, planned for a full 3 days. The form of training largely resembles a 'simulation' similar

to some types of role-play games and is designed to achieve the following outcomes:

1. Verification of a wide range of skills acquired during the multi-day classes preceding the simulation;

2. Checking whether there is a phenomenon of "bonding" between different, apparently unrelated, categories of

knowledge (which must be synthesized in the process of working in Outdoor Education) and whether future trainers have

the ability to use various methodological tools fluently. At the same time, this test is carried out under considerable time

pressure, in conditions of surprise and with incomplete information and the need for improvisation;

3. Developing professional habits necessary for safe functioning in the forest with a group of beneficiaries who may face

various difficulties during the classes;

4. At the level of an individual participant of the "Trainers Academy";

- developing leadership skills in managing a coaching team and a group of participants;

- from a psychological point of view, enabling them to play the role of a trainer and leader and developing a sense of

internal readiness to face professional challenges while working with project participants.

5. At the group level of participants of the "Trainers Academy" - creating a platform for teamwork and "getting in" with the

team and revealing synergy, enabling the use of the full potential of the group, mainly in relation to the diverse personal

and professional experiences of individual people who are part of the CIE coaching staff.

6. At the systemic level of the organization - verification of the entire operational scope of Outdoor Education in conditions

similar to the real course of work with groups participating in expeditions to the forest; procedures, logistics, program,

personal resources of staff.

Process

The practice of simulation methodological training in the third part of the "Trainers Academy" is preceded;

1. Recruitment and selection of candidates for the position of Education Trainer in Outdoor Education, which takes place according to the key that allows to select people with high personal predispositions to work with people, with particular emphasis on internal maturity, openness, sensitivity, social skills and the ability to cooperate, and at the same time in a group two subgroups of candidates emerge;

- people with tourist / forestry / expedition experience, but without professional experience in the field of development work with humans;

- people with professional experience in the areas of psychology, therapy, coaching, pedagogy, but without advanced experience in the field of outdoor activities;

2. Implementation of the first part of the "Trainers Academy" - theoretical and practical classes, devoted to the general knowledge of the Outdoor Education method and the work environment and tools used, including joint forest camping of the course group in the forest, preceded by packing the equipment and organizing the camp in a similar way, how it happens with project beneficiaries.

3. Implementation of the second part of the "Trainers Academy" - practical classes, lasting a week of time that the course group spends in the forest, in conditions identical to those during the Outdoor Education expedition. The subject matter of the classes is carried out as part of the workshops; both in terms of technical skills - forestry (e.g. lighting a fire, cooking meals on a fire, hanging team roofs with the use of ropes, basics of navigation with a map and compass, basics of first aid, etc.), as well as workshops devoted to the methods of implementation and session topics group and individual, during which the essence of Outdoor Education is "touched" in the context of personal and social skills development work.

The three above stages prepare for participation in the last and most demanding form of training - practice in the field of simulation methodological training – the third part of the "Trainers Academy".

Simulation training, similar to a "role play" game, requiring participants to "enter the scenario" in which they have actual agency and decision-making within specific sub-sentences, with many external factors and numerous variables designed by the main instructor conducting the training so that they can meet the assigned goals, it was based on the following assumptions:

1) Each training participant (candidate for a trainer) receives one task in which he acts as a leader. The number of tasks making up the entirety of the third part of TA corresponds to the number of participants;

2) There is a causal relationship between some tasks, while all tasks are interdependent in the context of the training time frame (delay in the implementation of one task negatively affects the implementation of the next one);

3) Each task leader will have at his disposal two people (selected from among the participants of the training) who will take on the role of Outdoor Education trainers. The exercise leader and the two coaches are therefore the coaching team that will carry out the assigned task;

4) The other participants of the third part of TA, for the duration of the tasks carried out by the "coaching team", assume the role of participants in Outdoor Education, assuming that they act as collaborators and interested in the proposed activities (they do not generate additional obstacles in an artificial way);

5) One of the participants of the training (it is a different person for each task), takes on another function - in a given task he acts as an observer who is to capture the most

important phenomena that will appear in the group, in the way of work of the "coaching team" and in the attitude and action of a leader. This person is required to co-host a summary of the assignment they have been looking at with the main instructor conducting the training.

6) The training is additionally attended by two experienced Outdoor Education trainers, graduates of previous editions of the "Trainers Academy" who already have actual experience in working with groups of beneficiaries. Their role is to follow the assumptions set out for each of the tasks. In some of them they simply participate as other people, in others they are supposed to play (like an actor) a specific attitude or action, and thus influence the workflow of the "coaching team". Therefore, these people play a supporting role in the course of the entire training in part three of TA, although the participants are initially not aware of it (they treat these two people as ordinary training participants).

7) The assignment of tasks to participants in Part Three of TA takes place at the beginning of the training and is limited in information. For example, the participant only learns that he will be the leader in the third consecutive task, which is organizing the journey of the training group from the base to the camp area in the forest. Any details are provided on an ongoing basis or not at all, depending on the nature of the task.

8) Training participants receive a printed training schedule, including a specific time frame for the completion of all tasks over the three days. The table they get is significantly different from the training schedule of the head instructor in Part Three TA. Its document takes into account the extended duration of individual tasks due to simulations, surprises and difficulties awaiting participants.

The simulations (surprises) indicated in the last point, which the participants are not aware of, are the main element generating the value of the training. They cause that the initial plan drawn up by the leaders of subsequent tasks cannot be implemented in its original form. It turns out that it is necessary to make adjustments to the time, method and tools. As a result, certain variants become obsolete and require remodeling already in the course of their direct implementation, as many surprises appear to the group on a regular basis.

Examples of simulations (difficulties) that have been woven into the course of tasks in a controlled and planned manner:

- a sudden need for an emergency wheel change in cars, during the implementation of the task of transporting the training group from the base / warehouse to the area of the first camp;
- the need to organize a camp in a different area than originally planned;
- impediment in the construction of camp shelters, consisting in the forced inability to use any rope or string (under the pretext of a mistake in packing equipment in the warehouse and omitting the set of ropes intended for this purpose);
- medical simulation during classes - that is, a sudden need to provide traumatic first aid and evacuate the injured to the nearest road in order to be handed over to the medical rescue team;
- a sudden need to design a team exercise other than the one normally indicated in the curriculum;
- the need to manage the situation in accordance with the provisions of the group's contract, in which during the session, a conflict and vulgar verbal skirmishes arise between two "participants";
- discreet sneaking out of the camp by two "participants", in the evening time, in order to arbitrarily return to the city (including actually reaching remote towns and trying to get on the bus or catching an occasional private car for a person encountered on the road);

- loss of water stored in canisters (faucets not tightened) and a sudden need to replenish supplies;

These are only examples of events that are interwoven into the standard (planned) course of the camp and session management by training participants.

Results

The participants of the training, in the formula of dosed difficulties and unplanned surprises, thus learn to act not only under the pressure of the result, but also time and information shortage, and sometimes also the shortage of material resources needed to complete the task. The simulations prepared in such a way, despite the fact that the scale of their saturation and complications is overestimated and probably they never accumulated so much during only three days, they fulfil the most important function, i.e. they increase the realism of training by forcing the "training teams" to work in a specific way. It is based on cleverness and creativity, correct communication in the coaching team, independence in making decisions, a flexible approach to the plan, setting priorities and managing the available material resources, and skilfully using the group's potential in order to run the necessary processes and the ability to act effectively under pressure.

From the point of view of the main instructor conducting the training and two experienced trainers supporting the process, the discussed form of classes allowed, first of all, an in-depth view of the candidates for trainers in terms of "what they know", "what they don't know", but most of all how they act in a potentially dangerous situation. may surprise him while working with groups of beneficiaries. Such experience facilitates the subsequent coordination of the work of the entire team in terms of the optimal compilation of trainers, so that there is always a phenomenon of mutual complementation of potentials and predispositions of the "three" people going out to the forest with the groups.

The proposed form of classes is also the only way to actually verify the safety procedures. They are written in the form of separate tables, provided for such circumstances as, for example, an accident, evacuation of a participant, loss or escape of a participant, etc. Participants of the training have tables with procedures in the form of printed A5 cards, protected against moisture, so they can the stage of managing a given situation and, if necessary, modify them.

Impact

After completing the training in the third part of the "Trainers Academy", the participants of the simulations described above shared their impressions on the scope and form of the training. They perceived them as an engaging and ambitious adventure that generated emotions in them, and to some extent also stress and adrenaline, and at the same time shared their reflections that it would be difficult for them to imagine any other way of training leaders (e.g. only theoretical).

The effect of this form of training trainers is their inner feeling of being prepared to work with groups of beneficiaries, which from the point of view of general CIE work standards is a particularly important assumption.

Trainers who graduated from the "Trainers Academy" and then made their first expeditions with groups to the forest, gave feedback that only this experience (the actual expedition, during which there are always various kinds of surprising situations, if only due to the unpredictability of nature, specific difficulties of the beneficiaries or the need to be systemically dependent on outsourcing services), allowed them to fully understand that, in

their opinion, the form of personnel training was justified and necessary, and that each of the exercises was necessary. This belief concerned both the mental attitude to work, as well as acquired or deepened skills (e.g. in the field of team management), as well as the harmony of the coaching team and building trust in its members.

Success factors

The key element for the success of the exercise is the multi-stage recruitment process preceding it and the scope of training in the first and second part of the "Trainers Academy".

In order for the simulation form to be justified, the participants in it must have a thorough knowledge of the Outdoor Education method as such. In other words, since in the third part of TA, its participants learn how to independently and on an ongoing basis work out an alternative way to achieve the assumed effect, they must know the standard way of achieving it in undisturbed conditions.

The second key element is the knowledge of the realities of working with beneficiaries, which plays a role at the design stage in detailing the challenges and difficulties to be generated during specific simulations. For this purpose, it was necessary for the person designing the challenges to go on expeditions with the beneficiaries many times in order to be able to ultimately propose to future trainers such training tasks that are similar to the realities of work.

Limitations

During the implementation of this type of simulation classes, special attention should be paid to the structured way of conducting summaries that must take place after the completion of each of the tasks carried out by the participants.

Whether the sentence is successful or not, the summary must;

- refer to all important areas of work as part of Outdoor Education, i.e. the sense of security of the group and the rules of the contract, the substantive scope related to the development of participants, the safety of people, equipment and the environment, working time frames, skilful management of the strength of trainers who must remain fit physical and mental for the week of the camp;

- create a space for expressing impressions and sharing emotions by people directly involved in the given situations (it is important that there is no tension in the group that could paralyze the course of training);

- enable the drawing and formulation of constructive optimization conclusions that are possible to implement as part of the next task or, as a last resort, that can be introduced systematically in the course of future work.

Related resources

The above description of the simulation form of methodological training, similar in form to "role-play" games, is the result of nearly 15 years of training experience (from the participant's and the instructor's perspective), Jakub Dorosz, the Coordinator of the CIE Outdoor Education Trainers Team.

Part of the experience was gathered during tactical military trainings, as well as the team commanders course and the light infantry platoon commanders course. Some of the experiences come from training in the field of emergency medical services, and others from the proprietary program of commercial survival training, carried out by the

UNIVERSAL SURVIVAL brand. These trainings have been recognized by many customers as the best in the country, and one of the in the field of urban survival offered by UNIVERSAL SURVIVAL, entirely based on the formula of simulations and surprising events, received the recommendation of SIS Sp. z o.o. run by former operators of the GROM Special Forces Unit.

This type of specialized training experience also overlapped with the experience gained from many years of work with groups of socially marginalized people and work as part of professional and social activation, including from 2019 working in the FOLM program under the Edinburgh Outdoor Learning model, which allowed to design challenges corresponding to the realities work of the Outdoor Education.

The method of simulation training of Education Trainers in CIE Outdoor Education was implemented few times over the years 2020-2021, bringing the same effect each time among the subsequent training groups participating in the "Trainers Academy" - a feeling of being prepared.

http://ciedu.eu/akademia-trenerow-cie/

Efficacy	★★★★★	One of the best gamified programmes in Poland.
Transferability	★★★★★	Fully transferable to different environments, also legal, and diverse groups of participants.
Usability	★★★★★	Usability is mostly dependent upon preparation of the educator.
Playability	★★★★★	Complex game not easily played in. If well prepared can be beneficial to all players.
Innovation	★★★★★	Still very innovative and educative though OL is getting popular.
Inclusion	★★★★★	CIE is testing this practice to be inclusive for persons with disabilities. It is inclusive for other minority groups.
Efficiency	★★★★★	This practice does not require digital environments nor substantial expenses to be implemented. The educational results are unique.
Ecosystem Diversity	★★★★★	The practice allows to use this gamification tool almost anywhere. Limitations regard the natural environment and preparation of the educator.

Low   High

7. Tetris

Title	**Tetris**
Date	2019
Authors	Anna Podemska-Kałuża
Geographical scope	Poland

Partners/Stakeholders

University of Adam Mickiewicz in Poznań, Poland.

Target groups/Beneficiaries

Students of the primary school and second level schools.

Context

It was important to introduce gamification as the application of game mechanisms in teaching. During gamification, the teacher wanted to transfer the rules and mechanisms functioning in games (motivational mechanisms and work organization systems) to the lesson structure. It was very important to pay attention to the steps a reflective teacher should take for gamification to be effective.

Objectives

Gamification was introduced following the below objectives:
- Determine the ultimate goal, the skill the student is to learn.
- Provide a list of activities that will help the student develop this skill.
- Group activities into levels of increasing difficulty so that the challenges they face become more and more difficult. Important! Each level should offer challenges of varying difficulty so that everyone can collect the required number of points.
- For each level, set the total point value you need to get to jump one level higher.
- The next level remains unavailable until the participant collects the required number of points.
- Have a visible place for all achievements-points and levels to be saved.
- A participant "wins the game" when he has accumulated all points, including the last level.

The principles of the teacher-gamifier's operation were developed by Agnieszka Bilska, an English teacher and a gamifier-practitioner, who promotes a school that is friendly to modern technologies.

Process

Tetris, as a game very popular and appreciated by young people, I activated twice during Polish language lessons in the field of language education:
1. at the primary school level: when discussing the subject group and the verdict group -

Tetris was a great didactic support here during the activities preparing students for an independent single sentence plot (of course, it was a very complex single sentence with a high degree of difficulty, which was a challenge for the students) ;

2.At the secondary school level: I used Tetris when discussing language games in a journalistic and journalistic style (I linked the appearance and disappearance of game elements with the activation and resignation of individual words in journalistic leads and the removal or replacement of key words in journalistic texts - the subject of observation of students were the related reevaluation of meanings in the analyzed texts and activated semantic games).

Results

Students presented a very open attitude to the use of a game well known to them - Tetris became a "catalyst" of proper didactic activities, and its use caused many accurate observations and observations of young people.

Impact

In school practice, gamification allowed focusing on the autonomy of the student, which means the freedom to decide how he or she wants to achieve educational goals and adjusting the level of difficulty of the tasks to the student to his abilities and skills. Just like in games, the learner needs to know the short-term and long-term goals.
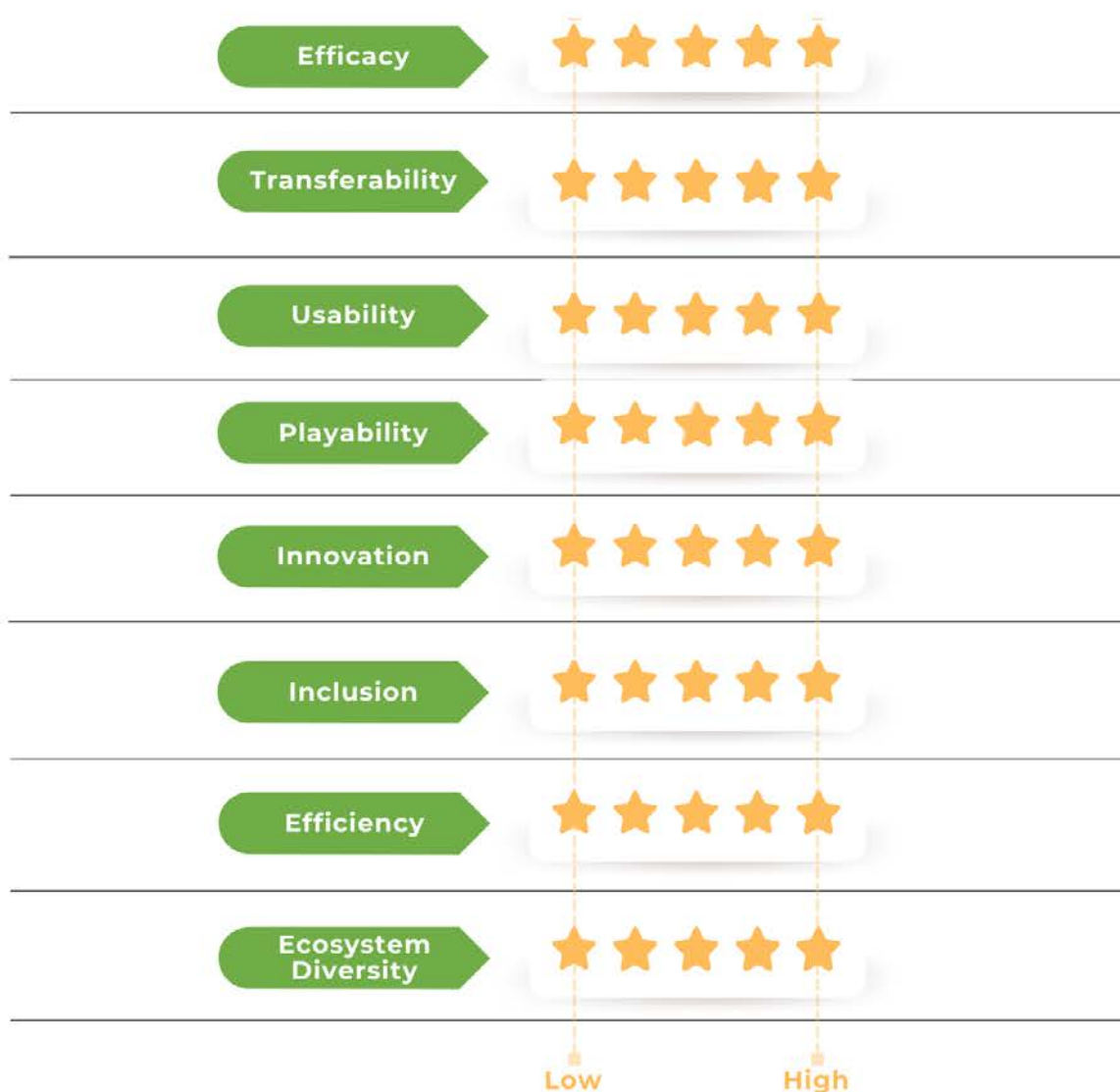
Success factors

Clear assessment rules are essential for the learner to understand at every stage of the activity. It is crucial to get immediate feedback on your progress or lack of progress. Only then, as in a good game, is the student able to achieve flow - the state of absolute commitment to action.

Limitations

Available only in Polish.

Related resources: https://pracowniapolonisty.pl/metodyka/inne/gamifikacja-w-edukacji/

Efficacy	★ ★ ★ ★ ★
Transferability	★ ★ ★ ★ ★
Usability	★ ★ ★ ★ ★
Playability	★ ★ ★ ★ ★
Innovation	★ ★ ★ ★ ★
Inclusion	★ ★ ★ ★ ★
Efficiency	★ ★ ★ ★ ★
Ecosystem Diversity	★ ★ ★ ★ ★

Low   High

8. WItkacy workshops

Title	WItkacy workshops
Date	2016–2021
Authors	Joanna Bochniarz, Witkacy Foundation.
Geographical scope	Poland, Spain, Lithuania.

Partners/Stakeholders

Witkacy Foundation and Theater of Stanisław Witkiewicz.

Target groups/Beneficiaries

Company employees, students of all levels of education

Context

Experts emphasize that the key competences in the labor market, especially in lifelong learning, include:
- developed senses of creativity
- initiative and entrepreneurship
- innovation and the ability to take risks
- the ability to plan and manage projects
- readiness to take advantage of opportunities at work and in everyday life

Acquiring such skills helps young people to become "entrepreneurs of their own lives", capable of shaping individual career and personal paths in a dynamically changing world.

Objectives

The workshops aim at:
- participants finding their voice through creativity
- participants knowing what motivates them
- participants realizing their own artistic vision
- participants strengthening the skills, tools and networks to develop their talents
- participants transforming their passion into professional success.

Process

The Project's method is likely to be replicable because it is based upon an approach proven across 3 different countries. It's extension to Spain, Poland and Lithuania will evidence replication potential in other regions. The Project is also intended to share underlying creativity, digitalization and entrepreneurship experiential learning approaches and techniques to support NEETs (rather than a fixed, 'one-size-fits-all' blueprint), which enables tailoring to local circumstances (e.g. different participants, policy environments, regulatory contexts, organizational skillsets), thereby giving greater scope for successful replication.

Creativity-based learning approach with important role of strengthening transversal competencies have been used successfully amongst disadvantaged client groups, which are analogous to the Project's participants.

Results

The workshops include: (i) developed senses of creativity and own artistic vision, (ii) initiative, innovation and ability to take risks, (iii) learning what motivates us, (iv) strengthening the skills, tools and networks to develop our talent and transform our passion into professional success.

Impact

The Project's method and approach proved across 3 different countries. It's extension to Spain, Poland and Lithuania evidenced replication potential in other regions. The Project is also intended to share underlying creativity, digitalization and entrepreneurship experiential learning approaches and techniques to support participants (rather than a fixed, 'one-size-fits-all' blueprint), which enables tailoring to local circumstances (e.g. different participants, policy environments, regulatory contexts, organizational skillsets), thereby giving greater scope for successful replication.

Creativity-based learning approach with important role of strengthening transversal competencies have been used successfully amongst disadvantaged client groups, which are analogous to the Project's participants. Key Project outputs ensure that results and methods will be properly documented.
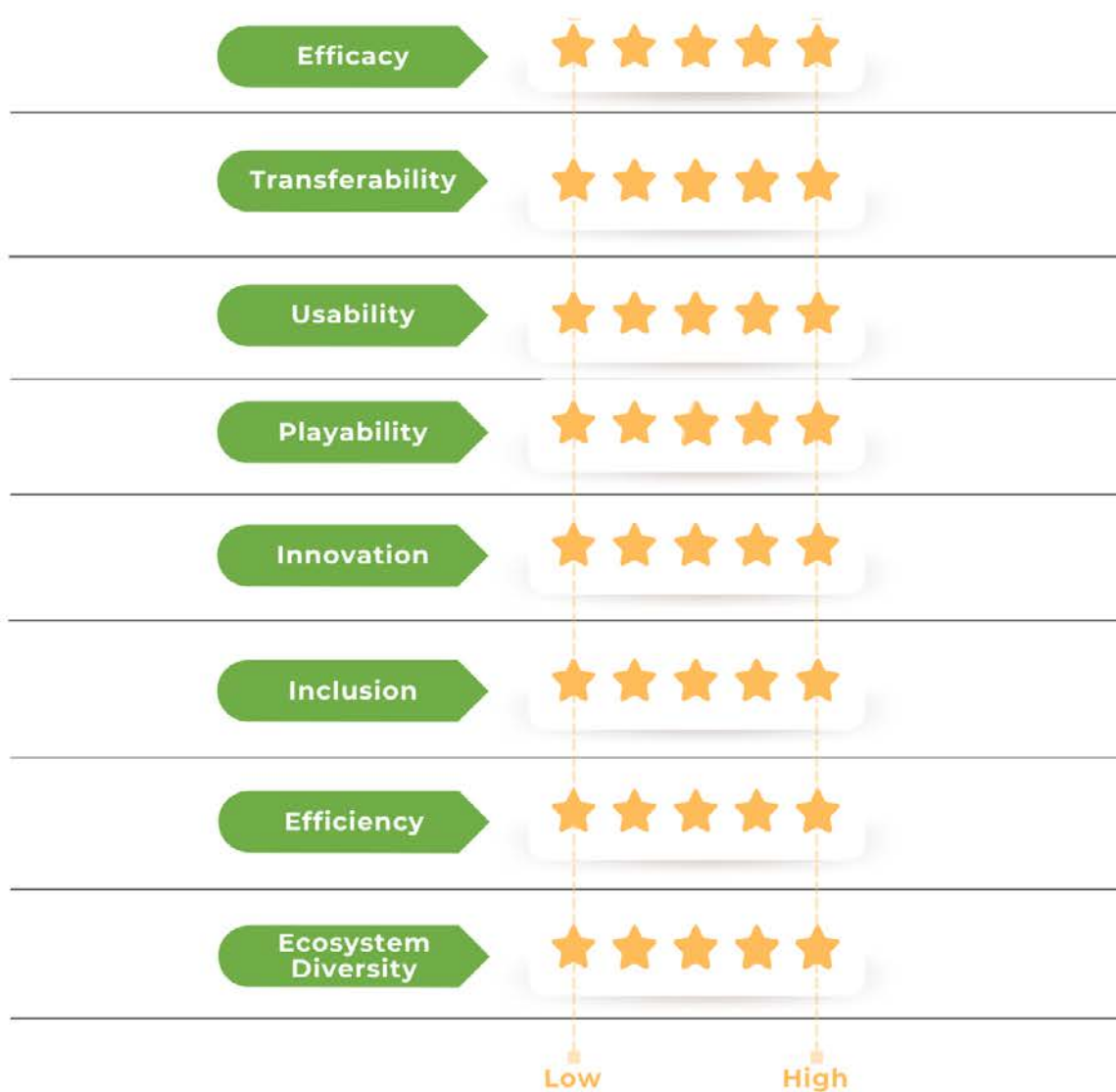
Success factors

Project's Sustainability Guide as well as an assessment of the effectiveness of other participants' engagement methods, which have been used in Lithuania, Poland and Spain help them prepare to enter the labour market.

Limitations

Available only in Polish, Spanish and Lithuanian.

Related resources: http://fundacjawitkacego.eu/warsztaty/

FINAL ASSESSMENT

	Low		High	
Efficacy	★	★	★	★	★
Transferability	★	★	★	★	★
Usability	★	★	★	★	★
Playability	★	★	★	★	★
Innovation	★	★	★	★	★
Inclusion	★	★	★	★	★
Efficiency	★	★	★	★	★
Ecosystem Diversity	★	★	★	★	★

Surveys Analysis

An online questionnaire was designed **to validate the best practices** collected in game-based learning in the six European countries involved: Spain, Italy, Greece, Romania, Portugal, and Poland. The survey aimed to gather the VET experts' perspectives on the innovative experiences, game dynamics, mechanics, and components researched by the Sparks consortium.

Methodology

The research work followed three main phases:

1. Design of the quantitative research tool;
2. Fieldwork;
3. Data Analysis.

Phase I: Design of the quantitative research tool

The chosen method was categorisation, creating blocks linked to main general research questions and developing more specific research questions inside each block. The development of the survey as a research tool for validation was implemented as follows:

1. all the Best Practices collected by the consortium were reviewed;
2. a log was created to perform an in-depth comparative analysis of the key elements of the practices collected;
3. research questions related to the main points that needed validation from the best practices were developed;
4. the survey questions were developed, based on a 5-point Riker scale, for each research question determined;
5. the survey questions were finally validated by the consortium.

Phase II: Fieldwork

Once elaborated, the online survey was disseminated by the partners. In Poland, 43 responses were collected.

Phase III: Data Analysis

1) *Recollection* of the data obtained with the survey.
2) *Disposition* of the data. In this Report, the responses obtained were organised to be further analysed in the Final Report of the research, comparing the results of the six countries of the consortium.
3) *Analysis* of the data.
4) Drawing *conclusions* based on the results of data interpretation.

Phase IV: Final Document elaboration

The last phase of our comparative research is developed in the Final Report, where the consortium analyses the results of the desk research in Best Practices in GBL together with the results of the validation survey performed and the results on the Focus Groups research the needs in VET.

Survey Results obtain in Poland

The first block of questions aimed at obtaining a **general picture of the target group of educators**. It includes essential information, such as:
- the type of entity the expert belongs to, including initial or continuous vocational center/provider, adult education center/provider, youth center, non-governmental organisation or foundation and other VET providers;
- the job position occupied, including teacher, coach or mentor, trainer, coordinator, administrative staff, management role, social educator or worker and other.
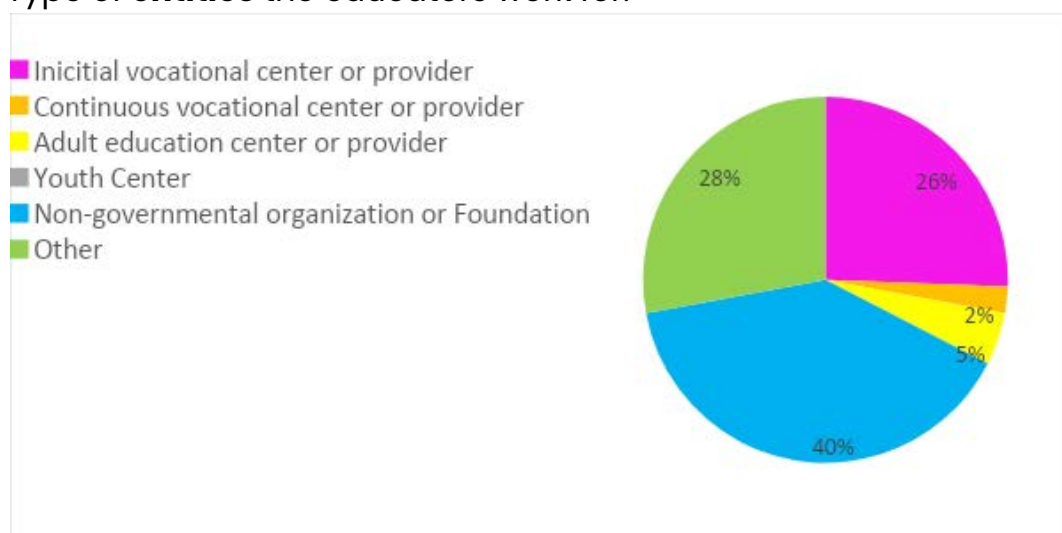
<table>
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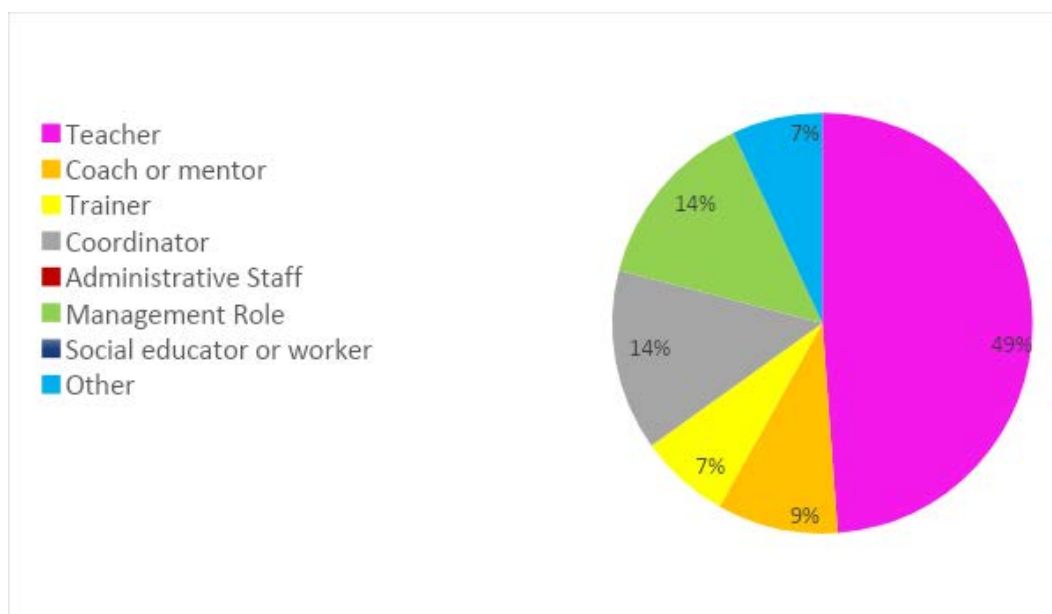<tr><td align="center">Responses</td><td align="center">Average Time for completion</td></tr>
</table>

Type of **entities** the educators work for:

The different **job positions** occupied by the people surveyed:

The following question belong to the second block that responds to the objective of achieving a general picture of the overall level of **competencies of VET experts** in digital skills and ICT tools and platforms, and more specifically their level of competencies in **game-based learning**.

3.   I think that incorporating ICT tools and platforms into teaching pedagogies is beneficial for teachers and students.
4,42   Average
4.   I feel confident that the competencies of educators (including myself) in digital competencies is sufficient to incorporate ICTs into teaching.
3.37   Average
5.   I often implement game-based elements in my teaching/training to assess students or increasing their involvement during classes.
3.37 Average
6.   I do not use gamification into teaching, but I would like to.
3.23 Average

The objective of the third block of questions is to **validate the best practices collected** by the following set of questions about the game-based elements that were found as the key to a successful game-based learning experience.

7.   Stablishing the objective of the game and the rules previously and explaining them to students before starting the experience.
4,44 Average
8.   Defining previously the possible roles of users in the experience and, if relevant, including the possibility of having different roles: active y passive (observer); leader and followers.
4,35 Average
9.   Using platforms and digital tools for the gamification experiences that are commonly used and recognizable by teachers

4,05 Average
10.   Including an attractive narrative and, if possible, maintaining the storyline defined during the game and till its finalization
4,35 Average
11.   Stablishing clear levels in the game experience that gradually became more difficult, with the aim of continuing to challenge users.
4,37 Average
12.   Including the possibility of feedback between students and educators during the game, specially at the end of a challenge or level.
4,53 Average
13.   Including challenges and tasks that must be done individually and in teams, to foster both teamwork and autonomous work.
4,46 Average
14.   Adding the option for the user and the educator of viewing the progress during the game or gamify experience since the beginning (i.e., using avatars or profiles to identify each user and show their progress)
4,3 Average
15.   Including access to educational material or additional information in the hosting platform of the experience (i.e., videos, tutorials, curricula, etc.)
4,28 Average
16.   Including graphics, visual elements, music, and videos that are stimulant and attractive for the students.
4,67 Average
17.   If the objective of the experience requires it, include simulation scenarios (i.e., job interviews) to foster learning by doing.
4, 4 Average
18.   If the objective of the experience is to evaluate students, previously stablish the criteria and make the students aware of those criteria and objectives chosen.
4,4 Average
19.   Stablish a reward system (i.e., Points system, ranking, badges, insignias, etc.) that motivates students, but also rewards different qualities such as behavioral attitudes (curiosity, helping other students, devoting more time)
4,3 Average

This last block constitutes an **open-ended question** so that the surveyed person can make a remark or state a relevant opinion on GBL.

20.   Would you like to share any past or present experience with Game-Based learning techniques, tools, or methodologies? You can do it below:
8 of the total of 43 Polish education providers surveyed answered.

COLLECTION OF COMMENTS
They are perfect for both online and stationary work. I use it to consolidate the material and introduce new content.
I have no experience.

Yes, I am interested in using these tools in training and various development projects.
From my perspective, it is worth being careful so that games as a teaching / assessment tool do not become another field for competition, comparison, placing students in a better-worse hierarchy, building motivation based on the awards received (badges, game levels) – currently one should move away from this view of working with students in favor of strengthening cooperation, individual self-esteem, non-numerical (and descriptive) assessment, constructive feedback that does not focus on weaknesses, etc.
In the automotive industry vet, there are few game-type tools that are available as open resources.
Introducing game elements in education improves concentration, reaction speed, and stimulates the imagination.
Unfortunately, I have no experience in running games with students. This year, together with my friends, I am starting to play business simulations in which students will be involved.
Observing the development of technologies and interests as well as digital skills of young people, I believe that games included in the education process can bring a huge profit for the entire education process.
They are perfect for both online and stationary work. I use it to consolidate the material and introduce new content.

Conclusions of the survey results

In conclusion, both the average competencies in ICT and game-based learning of Polish educators are sufficient, and they show a common appreciation for the benefits of applying game elements to teaching.

The validation by experts in education of the best practices collected by the SPARKS consortium has been extremely successful based in the responses, all the mechanics, dynamics, components, and pedagogical techniques incorporated in the survey have received a high number in the 1 to 5 scale proposed, all the elements of the best practices identify have received a punctuation higher than 4.

Focus Groups Analysis

Each organization have developed this activity with a minimum of 24 participants. This must be 12 educators and 12 students in the field of VET. Each partner has decided how they proceed

1. Methodology

Each organization have developed this activity with a minimum of 24 participants. This must be 12 educators and 12 students in the field of VET. Each partner has decided how they proceed to form their Focus Groups. Furthermore, the decision of making online or face-to-face also depend on each partner.

The Focus Groups will all have two experts for their development:

- A moderator will be selected to guide all the questions and offer support and direction of the turns.
- An observer, with the only purpose of taking notes of the interviewees' answers.

Both will be experts in focus group management and at least one of them with extensive knowledge in gamification.

The structure guide by a questioning plan permitted to follow the same template for all the partners, and it is useful to draw the final conclusions.

2. Report of the Focus Groups. Analysis and comments

PARTNER ORGANIZATION: Center for Innovative Education	
DATE AND HOUR: 27.09.2021, 15:00-16:00, 10.10.2021	PLACE: Gdansk, Poland
FORMAT (online or face-to-face): face-to-face	
PARTICIPANTS (VET educators and/or VET students): VET educators and VET students	NUMBER OF PARTICIPANTS: 25
MODERATOR: Wojciech Kamiński	OBSERVER: Joanna Bochniarz

Introduction: Firstly, introduce the purpose of the discussion and yourselves, introduce the Sparks project and what part the FFGG's discussion plays in the project, finally explain how the activity will be develop and start with introductions. You can use the **example** available in the methodology.

Question 0 : Breaking the ice - Why did you decide to join our focus group today? What has brought you here?

Co-funded by the
Erasmus+ Programme
of the European Union

Question 1: 1.1. Do you have **experience with game-based learning**? Have you implemented game elements? Or have you participated as a student in a class that has implemented GBL? **1.2.** What **positive aspects and negative aspects** did you realize during these experiences?

NOTES:
The Focus Group ("FG") is still stiff and at the beginning there is silence. It probably means the introduction part was too short. Some of the teachers were requested to come to the FG by the school principal and you cannot refuse the principal. Same goes to 3 students who were requested to participate by their teachers and these are good students. One of the teacher started by talking directly to other teachers and then responds to the circle in which everyone is sitting. Then students joined in.
Second group – just formed of 8 teachers – is very focused on the task.

Common Responses:
Only 8 teachers and 4 students responded that they had such experience (so more students than teachers). Both, 3 teachers and 4 students named similar positive aspects: ease at remembering, enjoyable class, everyone being focussed. Negative aspects were also simillar: questioning whether the knowledge is actually acquired. Positive effects also included that students were learning faster. Effectivity of teaching is no doubt bigger. The learning process is more dynamic.
Students are more creative and innovative.
Negative: sometimes it is difficult to keep students focused on the learning process. It is harder to come back to traditional way of teaching after gamification.

One student said she doesn't remember – she wasn't certain.

Noteworthy Individual Responses and Ideas (black by teacher, blue by student):
1. "Yes, I was in computer science. Playing in the lesson is a positive impression. I don't remember the negative side to that apart from the fact that we had to finish because the class ended".
2. Board games in the framework of the repetition of the material and Kahoot - quizzes on the Internet.
3. "Personally, I introduced such elements to a small extent. The introduction of these topics made it easier for students to acquire knowledge in the field of programming, improved their concentration, reaction speed. When I implemented game elements, I think they stimulated students' imagination."
4. "I did not participate in such a class. I think positive aspects would be a different form of learning, more enjoyable and varied. And a good way to remember. But I don't think it would be possible to repeat larger material."

Question 2: 2.1. In general, would you say you appreciate GBL in teaching and learning? Do you think **games add a positive input to learning**? 2.2. Could you describe **what** in your opinion **GBL can enhance in teaching and learning**?

NOTES:
Teachers were first to speak again.
Then some students got enthusiastic. Others needed to be asked individually.
Second group (only teachers) give concrete answers referring to their experience, particularly during COVID-19.

Common Responses:

6 teachers pointed out that in most of the subjects they teach they would not be able to implement GBL and oriented the discussion around that topic.

4 students said they like GBL, one indicating she would like to try "this variety once in a while" and would like to have it more often.

Remaining 3 students said that they have no opinion ("hard to say"), one adding that because of lack of experience.

8 teachers declared that apart from learning hard skills, GBL strengthens transversal competencies because students need to communicate with each other and put effort into teamwork.

GBL was a very valuable tool during Pandemic. It made kids be more focused on learning and they were happy to come back to a virtual class to continue GBL.

Noteworthy Individual Responses and Ideas:

1. "Unfortunately, the possibilities of using educational games in the vocational subjects I teach are very limited. Nevertheless, they are very useful educational tools. Thanks to the simulators, it is possible to conduct demonstration classes in the field of aviation technology, which in other conditions would be very difficult or even impossible."
2. "I appreciate it so much. It's hard for me to say how much!"
3. "Yes, I appreciate it. The way lessons are encouraged through games can be improved."
4. "I was glad seeing kids happy to log in for the lesson, just because I was using GBL."

Question 3: Do you feel like you have the **resources available in VET to implement GBL**? In case the answer is not, what do you think would make **the situation better** (educators- more time for teachers for the planification of these classes, more online resources to help with gamification, etc.; students- more innovative and attractive game experiences, more of these types of experiences in general, etc.)?

NOTES:

The discussion begun between teachers and students. Students want to see more innovative classes while teachers are afraid their work will change too much to control it (in terms of doing the whole curriculum) and to control the class. The 3 teachers with GBL experience didn't speak much.

In the sole teachers' group, teachers started with saying that most educators are too lazy or afraid to use GBL.

Common Responses:

No is the common answer of educators. Teachers feared that this would mean more work load and that they need to reconstruct their way of conducting classes. Will there be chaos? 3 teachers unexperienced in GBL expressed their personal interest ("Yes, I can try").

Students are eager to experience and don't see limitations.

More online resources for GBL would be appreciated and a short tutorial on Youtube.

Bigger engagement from other teacher colleagues would be great.

Noteworthy Individual Responses and Ideas:

1. "The resources are very limited, but we are very eager to reach for any multimedia aids, including interactive games, etc.".
2. "Does your project give such possibility?"

3. "I know that in some schools in Gdansk they are using games at every math class. I don't know which exactly but I think these are different ones."
4. "We could compete with other classes in some games and win!"

Question 4: Regarding e-learning. **4.1.** Do you have **access to and knowledge of digital tools and platforms**? **4.2.** (Educators) Do you have the **digital skills** necessary to implement more digital tools into your teaching and to support students with their own gaps in digital? (Students) Do you feel like you have the necessary digital skills to use digital tools? **4.3.** (For everyone) Do you feel like you need **more support** regarding digital instruments (user friendly platforms, tutorials, templates, etc.)

NOTES:
We had a feeling teachers didn't differentiate board games from online games at the beginning of this topic. They were surprised that in this question we concentrated only on online games. Then some teachers didn't want to explore the level of their digital skills. Unlike students who were very talkative.
All teachers in the second group were positive about their competencies. They rather need technical tools to implement more GBL.

Common Responses:
Everyone in the FG declared that they have access to digital tools and platforms.
Teachers indicated they had to use them during COVID as obligatory solutions.
3 teachers informed they need more support if they are to implement GBL. 2 teachers said they have the skills.
All students said they have enough digital skills necessary for GBL. 2 students declared they don't have access to learning platforms.
Teachers would really appreciate a user-friendly platform that is accessible also when the Internet level is not so good.

Noteworthy Individual Responses and Ideas:
1. "I don't need any more support, the tools I use are ok".
2. "Yes, I have. Teams, Photomath, google translator."
3. "Yes, I have. Teamsy, Kahoot and quizziz."
4. "Maybe we could use some YouTube videos for game based learning?"
5. "Yes, I need more digital platforms to replace tutoring. I would appreciate it much more".
6. "I do not have access. I would like to use such platforms, they could help in learning. This is how I have, for example, an application from Chemistry. I don't need any support."
7. "All help would be really appreciated."

Question 5: Would you consider useful **templates that help to implement innovative GBL practices** easily?

NOTES:
We were running out of time at this time because of discussions around questions 3 and 4. We could sense that we are using the free time, especially for teachers and they wanted to leave school. Every teacher responded very quickly. Students thought this is not a question to them. We didn't indicate otherwise.
In the group composed of teachers only, educators reacted with enthusiasm to initiative of templates.

Common Responses:
Yes – everyone is interested. Teachers said the best solution would be if someone taught them how to implement the particular tool step by step.

Because of the binding curriculum for each subject, teachers need to have it written down which exactly subject materials GBL would cover. Otherwise teachers fear this will be a waste of time.

Teachers would need to know more about the idea of templates – some examples would be appreciated.

Noteworthy Individual Responses and Ideas:

1. "Would these be only online / digital tools? I think board games would be easier for me."
2. "Would I be able to adjust or edit the content?"
3. "I would prefer if this was for individual students rather than a group."
4. "I would use these only to summarize a chapter".
5. "Do students always compete in GBL? I don't want them to compete. I have very difficult classes and this would not help me build a class spirit".
6. "It would be great if I could grade a student based on such game's results".
7. "Can you give some examples as to such templates that can actually refer to the binding Curriculum?"
8. "Yes, I feel alone and without complex support from the principal or other teachers. It shouldn't be only my business to organize the GBL".
9. "We need a national platform, which would support VET teachers in a complex way. Often we loose our motivation because we are constantly fighting wind mills."