

Follow Me to MINECRAFT

2021-1-CZ01-KA220-SCH-000032698

R1/T1: Methods for delivering PBL through Minecraft for ELT



Funded by
the European Union

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

REVISION HISTORY

Version	Date	Author	Description	Action	Pages
1.0	12/04/2022	HESO	Creation of the report	C	

(* Action: C = Creation, I = Insert, U = Update, R = Replace, D = Delete)

REFERENCED DOCUMENTS

ID	Reference		Title
1	2021-1-CZ01-KA220-SCH-000032698		Project
2			

APPLICABLE DOCUMENTS

ID	Reference		Title
1			
2			

Table of Contents

General introduction	3
I. Introduction to the world of Problem Based Learning (PBL)	3
Definition and cycle of Problem Based Learning	3
II. Enhancing PBL with Minecraft	6
Minecraft in Education	7
Example – Minecraft and PBL	7
III. Country specific Problem Based Learning by Minecraft	8
Bulgaria	8
Cyprus	12
Czech Republic	15
Greece	18
The Netherlands	20
IV. Collection of ideas in Minecraft World using PBL methodology in ELT	22
References	46

General introduction

This document is a guide to help bring together and compare ideas from each of the “Follow Me to Minecraft” project’s partner countries: Bulgaria, Cyprus, Czech Republic, Greece, and the Netherlands. Minecraft is a game-based learning platform that promotes creativity, collaboration and problem-solving in an immersive environment. It can engage students by bringing abstract concepts to life. This report aims to fill in an existing gap by providing concrete Minecraft-aware methods for delivering PBL experiences for ELT. The present work will not limit its scope to generic methods, but conclude to specific methods expressed in “Minecraft Language” so that teachers/schools can immediately put them to use.

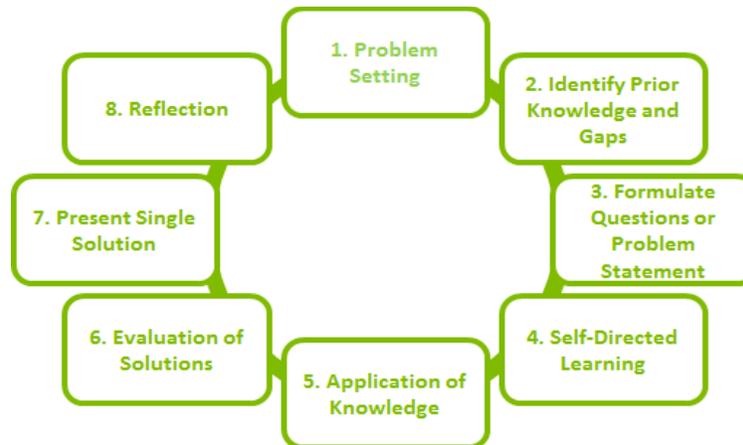
For more info about our methods, deliverables and partners, please, visit:
<http://followme2minecraft.eu>

I. Introduction to the world of Problem Based Learning (PBL)

A. Definition and cycle of Problem Based Learning

Problem-based learning is a constructivist pedagogical approach that organizes curriculum and instruction around carefully crafted “ill-structured” problems as the focus for learner engagement. Guided by teachers acting as cognitive coaches, students work collaboratively to develop critical thinking, problem solving, and critical skills as they identify problems, formulate hypotheses, conduct research, perform experiments and formulate solutions. Problem-based learning enables students to embrace complexity, find relevance and joy in their learning, and enhance their capacity to make creative contributions to real-world problems.” Ram et al (2007)

The PBL cycle



1. **Problem setting:** The problem directs the lesson and acts as a focus point for information acquisition. It has to be presented and introduced in a variety of methods that could engage students, such as: written on the board, as a letter delivered to the class, revealed through an artefact/object, from a newspaper clipping.
2. **Identify prior knowledge and gaps:** An important step for educators is to provide background, clarify terminology and answer basic questions relating to understanding the problem. If this is the first time the learners have undertaken PBL, a discussion on parameters related to PBL, expectations and group working etc is deemed also essential.
3. **Formulate Questions or Problem Statement:** It is important that the students have limited background to the problem. This means that the students hold enough prior knowledge to understand the problem, but solving the problem requires them to actively participate in the learning process and conduct more in-depth research to formulate questions and set the problem.
4. **Self-Directed Learning:** Students should be encouraged to go off in small groups or individually, using the questions they developed for themselves to guide their data collection. Students will then have to read, comprehend and begin to analyze the materials they have gathered to determine in what way the data and information they have found might be useful in solving the problem. This will involve analysis, evaluation and for some learners, a degree of scrutiny and criticality (critical thinking).
5. **Application of Knowledge:** Individuals or cooperative pairs bring their findings back to the main team. The team begins to work their way through the findings to try to gather the evidence to answer their questions. Supporting students in finding

strategies for communicating and sharing ideas and in practicing using dialogue and questioning that helps them clarify and refine their collective thinking will be useful, particularly to groups undertaking PBL for the first time.

6. **Evaluation of Solutions:** Once all of the ideas and possible solutions are on the table, students will have to employ convergent thinking strategies to decide which one to propose as the solution and justify why they are discarding the others. Students must weigh up evidence, negotiate and debate with each other and find a way to come to a consensus about the most appropriate solution for the problem.
7. **Present Single Solution:** Students present their solution, supported by well sourced evidence and justifications. The format of this presentation can be pre-determined by the teacher (report, group poster, Powerpoint presentation, video news report, podcast, animation, Minecraft world, model etc.) or can be selected by individual teams based on a list that is provided.
8. **Reflection:** A crucial element of the process is to allow time at the end of the programme for students to reflect upon their learning. Educators could provide a template that asks reflective questions or invite them to journal throughout the process. Reflection is important because only by understanding choices, methods, decisions and the ways in which they reached conclusions, will students be more likely to transfer their learning to other problems in future.

Features of the problem based learning:

- In Problem Based Learning the problem is 'ill-structured, non-linear and complex'
- The role of the problem in problem-based learning is crucial. It drives learners to construct their own knowledge, and to do this, teachers do not provide any content prior to learners undertaking their own research
- There are a number of specific processes learners undertake in problem-based learning (problem-finding, self-directed study, reflection) with specific pedagogical purposes.
- Assessment processes and products occur continuously throughout the whole PBL programme, so the focus is on creating a solution to a problem.

Theoretical underpinnings of PBL:

- Students do not start with a clean slate. Prior knowledge, assumptions and experiences are critical in helping students find meaningful entry points into the problem
- Learning happens in a social context, with meaning negotiated in a collaborative team setting
- Strategies are consciously applied to deal with unfamiliar information, handling team dynamics and working out feasible and well-thought through solutions

- Learning takes place through self-directed discovery & questioning
- The use of problems acts as a stimulus for learning
- Critical reflection happens throughout the learning process

B. Using PBL method in an English Language Teaching

The PBL approach would enable students to engage in collaborative decision-making and team-building skills as they learn to solve the problem through group negotiations with other peer students while practicing their language skills. In addition, the PBL approach would encourage students to venture into ‘thinking out of the box’ as the problem assigned for them to solve is usually open-ended and does not require a prescribed approach to problem solving. As students engage in solving the problem, they would also learn the processes involved in finding solutions to problems, resulting in deep learning and a more practical approach towards the language.

Through PBL, students would also learn not just a foreign language but to adopt an interdisciplinary approach to problem solving. This mirrors the real working world where solutions to real problems require a range of knowledge and skills. The PBL approach would encourage self-directed learning as students decide for themselves how they should go about finding a solution to the problem while gaining a lot of „language self confidence”. Rather than the teacher dispensing a prescribed English content, students plan and decide the course of action they would have to take.

Get inspired here:

https://onedrive.live.com/redir?resid=91F4E618548FC604%212182&authkey=%21AM_v9jh7DZ4b-c8&page=View&wd=target%28Preface.one|4a72b36d-27fd-4a8b-b586-2ca790a89a39%2FPreface|2c56573a-f8e1-db43-87b0-8544771e4427%2F%29

II. Enhancing PBL with Minecraft

A. Minecraft in Education

In Minecraft, players can mine and craft 3D building blocks of different materials within a generated world of varying terrain. It is a sandbox game, meaning there is no overall quest or plot — players decide what they want to build and do.

From the beginning, Minecraft was used by creative teachers as a tool in the classroom to bring historical buildings to life, encourage students to work together on group projects within Minecraft, etc. In 2016, Microsoft released two versions of Minecraft specifically for educators called Minecraft: Education Edition and MinecraftEDU.

The basic core of the game is the same, but the education versions add extra features. In Minecraft: Education Edition students can download the game at home without having to pay for their own version of the game, and they can take photos within the game and share them with other students. From a language teaching point of view, MinecraftEDU has some great assets: they provide authentic content and context for learning in multiplayer games where the process is guided by the teacher. Perhaps the greatest asset modern digital games bring to language learning is the ability to play in a group. Games with multiplayer modes allow gamers to act jointly in a virtual world, often collaborating or competing with one another.

B. Example – Minecraft and PBL

- **Adventures in English with Cambridge:**

Adventures in English can be delivered as part of a structured lesson in a classroom setting, and can also be played by learners independently. It combines the Cambridge approach to language teaching with the engaging and creative context offered by the world of Minecraft. Activities have been aligned to level A1 of the Common European Framework of Reference for Languages (CEFR) and are designed to focus on the skills and knowledge required by English language learners in order to communicate successfully at this level.

More info: <https://education.minecraft.net/en-us/lessons/English-adventures>

- **STEM4CLIM8 Project**

The STEM4CLIM8 project aims to create a special console and related learning materials. The console will function not only as a platform for learning tools, but as a learning tool

itself, with programming and creating their own scenarios in Minecraft and games using physical computing. Accompanying this will be a set of lesson plans to support teachers in using this console to deliver relevant and engaging lessons to young people that link up STEM excellence and practical knowledge with a sense of environmental consciousness and awareness.

Within the frame of the project a Minecraft World „Floodina” has been created. The goals of the world: This world targets to instruct children about the physical disaster of a flood. The structure aims to give some tips on how to protect themselves during a flood and present some measures that prevent flooding. In this world, we have 4 activities to complete and a set of 4 questions to answer after the completion of the activities. The NPCs in the game will give you directions on the activities you need to accomplish.

More info here: <https://stem4clim8.eu/about>

III. Country specific Problem Based Learning by Minecraft

Bulgaria

Interest and openness towards Problem Based Learning in Bulgaria

As a result of the COVID-19 pandemic situation, Bulgarian schools urgently needed to switch to distance learning. The use of cloud technologies, online teaching and online assessment provoked the transition and introduction of new school policies related to project-based learning and problem-based approach. These innovative approaches are focused on preparing students to understand, contribute to and succeed in a rapidly changing society by developing 21st century life skills.

Problem-based education covers the basic level of education: primary stage (grades 1–4) and lower secondary stage (grades 5–7), as well as the first stage of secondary education (grades 8–10) of secondary education. It is done by solving specific issues and focusing on specific global topics. These include many subject areas such as:

- civic education;
- personal development (development of social qualities and emotional intelligence);
- development of mathematical-logical thinking;
- foreign language and language training;
- natural sciences and ecology;
- digital competencies or art.

Teachers use appropriate key questions, in accordance with the educational material currently being studied, and agree on opportunities for interdisciplinary lessons and interdisciplinary links. In problem-oriented learning in the digital environment and application of ICT, the teacher-innovator provokes active participation of students in solving cases and their critical attitude to learning activities, which should be perceived as meaningful, provocative and interesting.

The projects that students have to work on are developed so that they become builders of their own knowledge, seeking and gathering information from various sources, negotiating, communicating, developing their communication skills. Students learn to think and solve real problems, feel the meaning of their work and satisfaction from it.

A definition of the main issue is applied, which helps to study the problem and select plans and strategies to generate an applicable solution. The basic questions help students to establish connections between individual facts, events and phenomena.

Obstacles and challenges in implementing Problem Based Learning in general and in the English Language Teaching Curriculum

Apart from being a means of communication, language is also an object of study. In language learning, learning "raw facts" in the form of lexical knowledge plays a bigger role than in many other areas.

One of the main difficulties in applying problem-based learning in foreign language learning is to minimize the introduction of such "raw facts" out of context. Problem-based learning is based on the implementation of tasks that require learners to be active, interact and communicate, which creates the preconditions to mimic the conditions under which the language is learned in the respective speaking space.

Sometimes, however, difficulties and tension arise between individual members of the group, as well as the use of a native language instead of the foreign language being studied. Working in groups is typical for problem-based learning, and successful interaction in the group is a real challenge for the teacher, because it is a necessary prerequisite for achieving good results. The use of the mother tongue should not be allowed at higher levels of proficiency in the foreign language. Here remains the question whether to take the risk of losing enthusiasm and creativity due to the inability to communicate freely in the target language, or to seek a reasonable balance in the use of both languages. Through the application of problem-based learning in practice, conditions are created for learners to become active, independent subjects of their own learning, and the foreign language to be used for authentic purposes. In the online environment, problem-based learning functions fully and finds more and more followers, attracted by the opportunities for active acquisition of knowledge and development of communication skills. Students share the overload of information and the difficulty of determining the scope of the required research, as well as the relevance of the available information. There is a risk that students will not have access to teachers who will be inspiring role models for the traditional curriculum.

On the other hand, teachers often have to invest more time in preparing teaching materials and assessing students' learning than teachers who work in the standard curriculum. The amount of time spent presenting new research and individual discoveries on each topic, as well as the disorganized nature of the brainstorming, leads to some frustration among students.

Another challenge facing teachers is to change traditional teaching methods to include problem-based learning. Some teachers find it very difficult to change their previous habits. And another challenge facing teachers is the issue of adapting to new methods of assessing student achievement, which includes written exams with modified questions for reflection, practical exams, questionnaires, self-assessments and more.

How common is it to use Minecraft (or other gamification method) to enhance the skills and knowledge of the students?

In modern education in Bulgaria the use of educational computer games and environments is becoming increasingly important. They have the potential to create a motivating and fun learning environment, as they contain activities that meet educational standards, learning objectives, provide feedback and can achieve high educational outcomes.

It is essential for the modern teacher in Bulgaria to know the main characteristics of educational computer games and opportunities for their integration into the learning process and extracurricular activities, taking into account the age characteristics and level of knowledge of students.

Gamification in the learning process has proven to be a very successful method of learning. It allows students to learn the material in a less engaging and fun way, to enjoy, which facilitates the process of memorization. Gamification allows students to put themselves in situations close to real life. The introduction of game elements in the learning process naturally increases the interest in it.

According to teachers and educators, the educational version of Minecraft is one of the best existing means of learning through fun, which encourages creativity, collaboration and problem solving. There are many ready-made, developed lessons – games available to students. Children can play individually or in teams.

Minecraft Education is intensively used in the classes of:

- Information technology: PixelArt
- Fine arts: digitization of works of art, etc.
- Informatics & computer modeling: Python, Command Block, Redstone, CodeKingdoms, ComputerCraft, etc.
- Physics: virtualization of scientific experiments with BuildCraft and IndustrialCraft
- Biology: research of real and design of digital biomes
- Ecology: problem-oriented learning with Forestry
- Geography: relief maps
- History: research and "restoration" of architectural and historical cultural monuments,,
- Music: composing with piano and Command Block
- Chemistry: chemical elements and chemical bonds.

As an example of the application of gamification is a project activity in a history class of 5th grade students at Alexander Georgiev-Kodzhakafaliyata Primary School, Burgas, who are building a model of the Acropolis in the world of Minecraft.

Other educational platforms used are:

1. Code.org – an online platform with a rich set of learning resources compatible with iPad and Chromebook in addition to all other modern laptops or desktops.

2. Google's Blockly Games – a series of educational games that teach programming experience in computer programming between the ages of 5 and 11–12.
3. Puzzle – presentation of Blockly blocks and how they are assembled together in a common construction (program).
4. Scratch – Visual programming environment, suitable for children and with an intuitive interface in Bulgarian and with free installation. It is used for training in computer modeling classes and enables learners to easily master technical programming skills.

In high schools, teachers integrate technology into the learning process and develop students' digital skills through the use of online educational platforms such as Geobra, Padlet, Bookcreator, Worldwall and others. A classroom is to be built for teaching and educating students in a virtual environment, where the teacher and students can wear virtual reality goggles to visualize the material being studied. This will take place in the vocational high school in digital sciences "SoftUni Svetlina".

Cyprus

Interest and openness towards Problem Based Learning in Cyprus

The latest research about PBL was conducted in 2009 in Cyprus and the situation remained unchanged until 2022. The research for the integration of problem-based learning into the educational curriculum of Cyprus was done at all levels of the Educational System of Cyprus through various means such as literature review, interviews and questionnaires. The main finding of this research is that although problem-based learning is used in teaching and learning at all levels, this is done in a non formal ad-hoc way, at the discretion and after the initiative of the teacher/professor. The research findings are summarized below:

1. The Literature review carried out through the consultation of on-line resources (through the Internet) resulted in no or very few results. No articles, no case studies, no reports were found on the use of problem-based learning in teaching and learning at any level of the Educational System of Cyprus.
2. The study of the educational curriculum of the programmes of study of the Primary and Pre-primary Education of the 5 universities in Cyprus offering these programmes revealed that there is no course in the curriculum dedicated solely to problem-based learning. However problem-based solving is covered in a course on Modern Techniques in Teaching and Learning. Thus teachers of primary and pre- primary education are introduced to the topic during their studies.
3. Based on the interviews that were made with both primary and secondary education teachers, here are the findings that are concluded:

a. The interviews with selected teachers of primary education (primary and pre-primary education) confirmed the finding above, that is that the students of the primary and pre-primary education programmes (who subsequently became teachers) are/were taught the topic of problem-based learning not through a specific course but through a general course on modern techniques/methods on teaching and learning. As teachers now, they do teach the topic through a similar course, and use it in a non-formal ad-hoc way throughout all their courses. At some point in time the teachers of state school received some information/seminar on the topic from the Ministry of Education and Culture.

b. The interviews with selected teachers of secondary education (in various fields such as History, Geography, Math, etc.) revealed that although they were not taught this topic during their university studies, they themselves (mainly the Science teachers) now use this method in an ad-hoc informal way.

4. The interviews with selected professors of the Education Department of the University of Nicosia confirmed all the above findings. They also confirmed that the primary education and pre-primary education curriculum at the University of Nicosia and indeed in all other Universities in Cyprus offering these programmes does not include a dedicated course on problem-based learning. Instead this method/technique is covered as part of a course on modern teaching/learning techniques. They themselves use this technique in an ad-hoc informal way in teaching.

5. The interviews with selected University of Nicosia professors of various other than education disciplines revealed that problem-based solving is used as well in an ad-hoc informal way in teaching and learning, mainly in science subjects. Computer Science, Mathematics, Physics, Biology and Chemistry.

6. The final part of the research was the gathering of information through written questionnaires/reports from schools. The questionnaires were sent to 3 private schools of secondary education (The American Academy Nicosia, The G C School of Careers Nicosia and Highgate School, Nicosia). The returned answers from the 3 school principals basically re-confirmed all the aforementioned findings.

Obstacles and challenges in implementing Problem Based Learning in general and in the English Language Teaching Curriculum

Summarizing all the above, we could say that Problem-Based Learning has many advantages such as: helps children learn how to learn, cultivates critical thinking, creates research-oriented skills, makes children think and apply processes, broadens children's learning horizons. However, it could be challenging to the teachers: it is a time consuming process in terms of preparation and teaching, may not easily fit into the curriculum, may require resources (equipment/ material) that are not available and it may delay the delivery of content.

Problem-based learning has not been introduced properly, integrated formally and systematically into the Educational System of Cyprus. It is used however at all levels of

Education (from primary to secondary and to higher education) but mainly by science teachers/professors. Also, there is a misconception amongst non-science teachers/professors that this method cannot be applied to their discipline. However, if they would be introduced to a material that could help them implement this method, they could/should use this method/technique in their courses. Might as well, when it comes to English Teaching with PBL method, there were zero findings on the topic. Thus, it can be assumed that some of the teachers do work with this method but it is purely informal and there is no formal professional link or community that can be motivating for other teachers.

Reflecting to all the current situation and challenges of applying PBL in the educational curricula the following suggestions could remove some of the obstacles and make PBL more available and applicable:

1. Problem-Based Learning be integrated into the curriculum of primary and pre- primary education university programmes by introducing a dedicated course on this method/technique.
2. Professors, and all teachers of state and private schools of primary and secondary education are trained annually on problem-based learning.
4. Teachers/professors report annually the teaching/learning activities in which they used problem-based learning so a collection „national best practices” could be created.
5. It could be motivating for educational institutions to apply comparison analysis studies to report on the differences of using and not using problem-based learning among students.

How common is it to use Minecraft (or other gamification method) to enhance the skills and knowledge of the students?

Nowadays, teaching and training faces new challenges as the students are less self-disciplined, living in overwhelming environments and losing attention and/or interest very quickly. As educators and trainers and technologists in Cyprus are about to address these challenges. Applying fun and engaging elements found in games to non- leisure contexts, known as gamification, aims to motivate the learners to complete specific tasks, and thus, increase user retention with content, products or services. Education and training can also gain from this approach. Gamification makes the learning experience more enjoyable and engaging. It's a powerful tool for engaging learners with the content and is relatively cheap to implement, feeds into the user's sense of accomplishment while it allows the teacher/trainer to gather performance data for the learner. In Cyprus this method is well known, but not quite popular. The biggest problem is that the gamification method (like using Minecraft in Education) faces the same situation as PBL – lack of knowledge and equipment can discourage teachers and trainers from working with various gamification

methods. Although Minecraft Education is available in Cyprus, there is no information about its usage in the country. There was one exception: The American International School in Cyprus AISC is a private school in Nicosia. They implemented Minecraft Education in their curricula and one of their projects was recently highlighted: 5th graders built a sustainable school within the framework of the game.

Luckily, in Cyprus there is also one organization that has the lead in this topic: The EdMedia Group of CYENS aims to conduct applied research and innovation in the field of Interactive Media for Education and Edutainment. Their areas of expertise: learning experience (LX) design, UX design, technology-enhanced learning, training and pedagogy, technology integration (formal and informal), assessment and evaluation. Their mission is to take gamification and gamification tools into schools and courses for teachers and VET educators.

Czech Republic

Interest and openness towards Problem Based Learning in the Czech Republic

Before focusing on the PBL method itself, it is important to understand the background of the educational process and the motivations and goals of teachers in the Czech Republic. Czech teachers must follow the common outcomes set out in the Framework Education Programme (FEP or RVP in Czech) document, which is always designed for a given level of education (basic, primary, grammar, secondary, vocational), when preparing the content of their lessons.

From the reports of the Czech School Inspectorate (the main inspection body in the Czech education system – hereafter referred to as CSI), it is possible to observe how teaching methods change at different levels of education (we will focus only on PBL).

According to the CSI report from 2015 [1] and then from December 2021 [2], we can clearly see how the ratio of activating teaching methods (including PBL) decreases during the transition from the primary school (7–11 years) to the lower secondary level (12–15 years) and then to secondary school (16–19 years). While PBL is a relatively common form of teaching at the primary level (appearing in up to 20% of lessons), it is only 15% at the final years of the lower secondary and less than 10% at the upper secondary level.

In primary schools, especially in their second cycle (i.e. lower secondary level, 12–15 years), there is a lot of pressure on the teacher not only to meet the outcomes of these programs, but also to prepare students for the secondary school entrance examinations. The state-directed entrance examinations require a large amount of mechanically learnt knowledge. Teachers are thus constrained by the amount of content in the FEP (RVP)

that they must necessarily cover and by the form of the aforementioned entrance exam, and this is reflected in the choice of teaching methods.

The PBL method is more often encountered in science classes than in humanities classes, and this method is used more by teachers with higher self-awareness [3].

The Czech education system is guided by the 2030+ strategic plan. Within the framework of this plan, major revisions of the framework curricula are taking place nowadays, with a reduction of the amount of knowledge that is taught. This fact could contribute to the fact that the share of PBL teaching methods could be increased at all levels of education, for example by placing more emphasis on the actual involvement of pupils, inter-subject relationships and the development of competences important for the 21st century, such as communication, cooperation or critical thinking.

The PBL method of teaching English brings many benefits to the classroom. Students are actively involved in the lesson, the knowledge gained is lasting. Students are able to connect knowledge with each other and learn to think directly in a foreign language. While in conventional teaching, learners tend to use exclusively the left hemisphere of the brain, in alternative methods, which include the PBL method, they engage both hemispheres [4].

In the Czech Republic the concept of PBL is rather unknown among teachers due to its relative novelty. Although there are institutions which based their teachings on projects/problems, these are exceptions and mostly private-founded. Thus, PBL learning is not definitely a mainstream method of teaching. PBL activities are occasionally incorporated into regular classes to perk up and activate the learners and unfortunately are implemented only by single individuals although problem-solving competence is one of the key competences stated in Framework Educational Programme in the Czech Republic.

Project based teaching is much more familiar with teachers but still rather seldom implemented in classes due to its time management requirements for both teachers and learners. Similar activities possess a great deal of risk for an inexperienced teacher in terms of not completing the desired goal of the project, missing the learning outcomes and/or failing to engage the learners.

Needless to say, primary schools do better at PBL as their work with younger learners and the tasks are basic and easier to be solved within a given timeframe. Younger learners are often more playful and easier to be engaged in various types of activities than teenagers.

It is almost certain that presentations and especially hands-on experience of teachers could change this situation and encourage many more teachers to make PBL part of their lessons.

Obstacles and challenges in implementing Problem Based Learning in general and in the English Language Teaching Curriculum

Some of the obstacles to choosing PBL are mentioned in the answer to the first question. Incorporating PBL makes more demands on the teacher's preparation than in frontal (lecture-style) teaching, whether it be the way the lesson is organized, the time required, the choice of a suitable problem that is interesting and motivating enough for the pupils to actively search for a solution, or the method of assessment. Teachers in the Czech education system are also burdened with a large number of administrative duties, which takes away the time needed to prepare alternative teaching methods. They also often struggle with technical obstacles and are not very familiar with ICT tools. Moreover, some students do not have access to computers so the PBL activities should be compatible with mobile phones.

However, it is necessary to focus on the pupils' perspective as well. PBL requires the active involvement and cooperation of pupils. This form of teaching can be uncomfortable for introverted pupils who have problems with engagement in group work. Also, PBL can be beneficiary for their problem-solving competence that is widely understood as one of the key competences in the Framework Educational Programme, the methodological support for teachers and clear guidelines on how to achieve this competence is absent (Ceskova 2020, p.95). Sadly, the unsupported teachers either take the leap of faith and either succeed or fail. Their time-consuming effort of bringing in new methods is rarely met with appreciation from their colleagues, supervisors and sometimes learners or their parents.

How common is it to use Minecraft (or other gamification method) to enhance the skills and knowledge of the students?

Teachers can get inspirational tips on Minecraft on MinecraftEduCZ, mostly to enrich programming and science classes. Its FB page dedicated to teachers is followed by approximately 600 followers only. The concept of gamification is often used in classrooms, especially among foreign language teachers. Online platforms such as Kahoot!, Quizlet, Quizzes are common, but they are not used on an everyday basis. One of the major challenges is balancing between time spent on logging in and the learning output. Also, students have mastered various ways to hack these games.

Among the pioneering schools using Minecraft in education in the Czech Republic are Gymnázium, České Budějovice, Česká 64 (Gymnasium, České Budějovice, Česká 64) and a Střední škola informatiky, poštovníctví a finančnictví Brno (the Secondary School of Informatics, Postal Administration and Finance Brno). These schools started using Minecraft in education in 2015, when only a modified version of MinecraftEdu existed for schools. The idea to start with Minecraft was brought from Redmond, USA, from the global Educator Exchange conference, which is organized annually by Microsoft for selected

teachers from around the world. The first beginnings were mostly in computer science classes while teaching programming.

With the arrival of the redesigned Minecraft: Education Edition in 2016, getting Minecraft into schools just got easier. The first projects of the two schools mentioned above were the construction of their own buildings in the Minecraft environment in 2017 (demonstration of [Gymnázium Česká – Visualization in Minecraft – YouTube](#)). These projects made Minecraft very popular and showed the benefits of using this computer game in education. This year, massive support from the Czech branch of Microsoft is coming and, in cooperation with teachers and selected students, Czech written materials are being created for the use of Minecraft:EE in a wide range of subjects (see <http://minecraftedu.cz/>).

Minecraft is currently experiencing a big boom in the Czech Republic. Schools are using Minecraft in two main ways. Either directly as a tool in teaching or very often Minecraft appears in schools as part of interest groups or clubs.

Due to the revision of the computer science subject, where the teaching of algorithmization gets much more space, some schools choose Minecraft:Education Edition as the main environment for teaching this topic due to the possibility to program in the MakeCode block environment. The use of Minecraft is fun, motivating and develops a range of competences in pupils, such as collaboration and creativity.

Minecraft is therefore most often associated with the teaching of algorithmization, but its use in other subjects should also be mentioned. From the discussions on social networks it is clear that Minecraft has found its place in other subjects. However, these are mostly science subjects such as mathematics, physics, geography or chemistry. Examples include lessons created to teach sequences in mathematics, settling of materials in water in geography classes, a model of the solar system in physics classes and others, all of which are created by Czech teachers. In order not to leave out humanities subjects completely, a world called Book Maze was also created to review knowledge from Czech and foreign literature.

In this way, Minecraft is currently used by some teachers at all levels of education. However, it has found its greatest place mostly with pupils in primary schools.

Greece

Interest and openness towards Problem Based Learning in your country

The Greek Ministry of Education and Religious Affairs has a wide range of laws and decrees that govern the country's educational system. To keep up with new scientific discoveries and internationally acclaimed educational approaches, successive governments pushed the Ministry of Education to make significant reforms to the country's

educational system. The multilayered education system in Greece is the outcome of adapting state-of-the-art education research and international education practices to fit the needs of Greek society and the Greek labor market.

Technology has had a major impact on education during the last few years. However, when compared to other countries, Greece appears to be lagging behind when it comes to education. Furthermore, kids are conditioned to worry exclusively about their grades and not about understanding the material they are given from an early age. Furthermore, Greece's economic position prevents the provision of vital supplies and equipment to schools and institutions. Students don't have the tools they need to learn how to solve real-world problems and broaden their perspectives by working on projects that are important to them.

PBL scenarios are a great way for students in the education area or competency-based courses to acquire and build educational information connected with specific competencies and diagnostic accuracy through collaborative learning. Teachers are looking for techniques to compensate for the loss of the more engaging physical presence caused by the current pandemic.

Obstacles and challenges in implementing Problem Based Learning in general and in the English Language Teaching Curriculum

There are two major limitations to using "paper" examples in PBL, which have been in place for more than 60 years, despite the method's effectiveness and popularity. Traditional paper-based examples, on the other hand, were linear, which meant that they could only go in one direction and did not allow students to make their own decisions and examine the repercussions of their actions. So, if there is an emergency, students can only do what is written on the page. Aside from being unrepresentative of real life, such scenarios do not help students improve their knowledge, skills, or reasoning because there are usually multiple ways to approach an issue and faults are not always visible. It is impossible for students to take control of the situation or control the care of the patient in a "paper" case, so they are only observers. For the second time, it is important that PBL developers look into how interactive visual technologies could be used to make cases more immersive and interesting in the modern world. For example, the COVID-19 pandemic in 2020 has heightened the need for this, as much knowledge has shifted online in a short period of time.

All teachers who have the responsibility of shaping the minds of the next generation should have access to high-quality teacher training programs. Understanding the students' mindsets, counseling them, identifying slow learners, and finding ways to teach them are all essential. While government funding for schools and colleges is not the only solution to educational woes, it is necessary if the educational system is to improve. Another

problem that needs to be fixed is that students need more time to be fully engaged than they would need for a traditional learning process.

How common is it to use Minecraft (or other gamification method) to enhance the skills and knowledge of the students?

At the end of 2021, the following question was posted on Reddit:

“I Need A Greek Building Seed/Realm/World To Join, So I Can Present It To My Class. Please help me out, I can't find any Greek building seeds or worlds or realms to join and I need someone's help.”

Despite the large number of Minecraft team members on this page, no one was available to answer a specific question. It is true that Greece lags behind in the use of alternative education methods, though efforts are being made to change this climate. However, these efforts are not focused on producing immediate results.

A study was conducted on educational games and their use in the English language in Greece because few people in Greece use Minecraft games in the educational process. The film "The Treasure Hunt" was selected for examination in section IV.

The Netherlands

Interest and openness towards Problem Based Learning in the Netherlands

Research among the websites of prestigious Dutch schools and universities, such as Radboud University in Nijmegen, Maastricht University and Erasmus University Rotterdam, will convince everyone about the importance that is given to Problem-Based Learning (PBL) within the country. The Netherlands has garnered international recognition for its innovative PBL methods. This approach teaches pupils how to analyze and solve practical issues on their own, promoting self-study and self-discipline. The Dutch educational method encourages students to approach education with an open mind and to establish their own ideas.

Teachers and professors across all levels of education in the Netherlands consider PBL to be highly beneficial as it promotes the development of critical thinking skills, problem-solving abilities, and communication skills.

 Fun fact: In Europe, the Maastricht Medical School (the Netherlands) was the first to introduce PBL in 1974.

Obstacles and challenges in implementing Problem Based Learning in general and in the English Language Teaching Curriculum

Discussions among teachers practicing problem-based learning in the Netherlands reveal a certain degree of displeasure regarding some aspects of it.

The biggest challenge seems to be the following, according to Professor Hinke Douma: “by including all educational components in contexts, the sometimes-necessary structure is lost. You cannot teach people to write an English instructional text without basic grammar and word knowledge. Something similar applies to physical principles. That could be improved, but it would be best to simply give theory lessons in addition to PBL, with its own structure and content” (translated from Dutch).

Another challenge regarding implementing PBL in ELT, as well as other subjects, has to do with learners’ personality and preferences. Students who do not prefer working along with others, cannot easily adjust to PBL, as it requires working extensively in collaboration. Moreover, students who are used to being quite specific about what they need to study, dislike PBL, as in this methodology you need to search for information on your own and use various tools.

Students’ reports about their first reaction towards PBL in an English Language context reveal: “PBL in English is difficult. I cannot say what I know”, “My English was not very good. Sometimes I was not sure if I had properly understood the example”.

How common is it to use Minecraft (or other gamification method) to enhance the skills and knowledge of the students?

Embodying the use of Minecraft Education Edition in a classroom context is a practice that is being strengthened to a great extent in the Netherlands, leading to the creation of a lot of handbooks regarding the best approach to do so. Dutch schools were one of the first ones in Europe to provide learning through Minecraft in their classroom.

Let’s look at an example of actively using MinecraftEdu at school. The board of Public Primary School De Cingel (Friesland, the Netherlands) was looking for a way to encourage schools to get started with 21st century skills. Since Minecraft for Education was already available to schools as part of Office 365, it was a logical choice. Pupils started with a small assignment: to recreate their own school. Then, if successful, the ambition was to explore how the school could link such assignments to specific existing teaching content. Upon successful completion of the first task, the students of De Cingel undertook the reconstruction of a house. This environment was already part of the school’s Microsoft package. Children went with iPads through the spaces they were going to recreate. They took pictures and notes and then started building. The teacher watched the environment and learned more and more about how the Minecraft environment works. After this phase,

the school started thinking about ways in which this technology could be used as part of the curriculum. The result? Students have completed lots of projects and built various objects in Minecraft, such as boats and museums while taking the lead and having teachers observe and guide them as needed in the background.

IV. Collection of ideas in Minecraft World using PBL methodology in ELT

1.

Name of the Minecraft World	„Around the city”
Level (from the Grammar perspective)	
Short summary of the purpose of this specific world	Group of friends have lost their dog and are looking for it in the city.
The focus of this world in general in ELT (grammar, vocabulary, syntax etc.)	Vocabulary
Detailed description of the knowledge/competences that this world aims to develop	<ul style="list-style-type: none"> - Vocabulary of places found around the city (bank, hospital, cinema, bookstore, police station, library, restaurant etc.) - Asking for help, directions, - Providing descriptions (e.g., the dog is big and white...) - Groupwork – collaboration

	<ul style="list-style-type: none"> - Communication – discussion - Critical thinking
What tasks/activities do they need to accomplish in this world? (name minimum of two)	<ul style="list-style-type: none"> - Report the missing dog to the police - Organize a search group around the town
How is the PBL method being delivered during the game? (Use the PBL cycle for reference)	The game is focused on a problem: what happens if a group of friends lose their dog. Identifying their prior knowledge (related English vocabulary and their experience with moving around the town).
What can students achieve by completing tasks and activities given the world? Learning outcomes	<p>They can learn new vocabulary connected to various places in a town.</p> <p>They can learn to collaborate and make decisions, form questions.</p> <p>To achieve that, they will need to consolidate the grammar, vocabulary and syntax elements presented and practiced in the previous courses.</p>
Do you think this specific world could be implemented successfully in your country's education curricula? Why?	The specific world would be successful in the Dutch curriculum, as students enjoy facing challenges and pets, such as dogs and cats are extremely popular among young learners, so they will be extra dedicated to devoting time and energy to accomplish the task.
Activities outside the MC world	<p>Preparation: group brainstorming (what are places and buildings found in a town? Name them in English.)</p> <p>Playing the game itself: groupwork of 2–3 students with a notebook</p> <p>Follow-up: after playing the gaming activity a short group reflection with the students - both orally (what did you like the most? What surprised you the most?) and in written form – individually (e.g.: write down three new words you have learned; translate this question into English etc.)</p>
Estimated time for this task	90 minutes (the quest can be finished individually for homework)

2.

Name of the Minecraft World	„A night in the Museum”
-----------------------------	--------------------------------

Short summary of the purpose of this specific world	A group of students end up locked at the museum, when their classmates leave, and the guide accidentally locks them inside.
The focus of this world in general in ELT (grammar, vocabulary, syntax etc.)	Vocabulary & Grammar
Detailed description of the knowledge/competences that this world aims to develop	<ul style="list-style-type: none"> - Vocabulary of rooms and artefacts in the museum (statues, reception, fossils, paintings) - Grammar: modal verbs (should, mustn't, need to, may, let's ...) - Group Work – collaboration - Communication – discussion - Critical thinking
What tasks/activities do they need to accomplish in this world? (name minimum of two)	<ul style="list-style-type: none"> - Explore the areas of the museum - Find the key to unlock the door and escape
How is the PBL method being delivered during the game? (Use the PBL cycle for reference)	The game is focused on a problem: what happens if a group of students are trapped in a museum and need to escape. Identifying their prior knowledge (related English vocabulary and their experience with museums).
What can students achieve by completing tasks and activities given the world? Learning outcomes	<p>They can learn new vocabulary about museums and culture in general.</p> <p>They can learn to collaborate and make decisions, form questions.</p> <p>To achieve that, they will need to consolidate the grammar, vocabulary, syntax elements presented and practiced in the previous courses.</p>
Do you think this specific world could be implemented successfully in your country's education curricula? Why?	The specific world would be successful in the Dutch curriculum, as students are familiar and interested in arts, culture and museums, so they will be motivated to complete the challenge and gain new knowledge.
Activities outside the MC world	<p>Preparation: group brainstorming (What can be found in a museum? When was the last time you visited one?)</p> <p>Playing the game itself: groupwork of 2–3 students with a notebook</p>

	Follow-up: after playing the gaming activity a short group reflection with the students – both orally (what did you like the most? What surprised you the most?) and in written form – individually (e.g.: write down three new words you have learned; translate this question into English etc.)
Estimated time for this task	90 minutes (the quest can be finished individually for homework)

3.

Name of the Minecraft World	„Wildlife”
Short summary of the purpose of this specific world	Group of students got lost in forest during hiking and they need to find their teacher
The focus of this world in general in ELT (grammar, vocabulary, syntax etc.)	Vocabulary, using “can”, expressing ability or inability

<p>Detailed description of the knowledge/competences that this world aims to develop</p>	<ul style="list-style-type: none"> - Vocabulary of environment (animals, plants, outdoor material) - Asking for help, directions, learning about what to do in case of being lost - Decision making - Group work – collaboration - Communication – discussion - Critical thinking - Identifying actions that are necessary
<p>What tasks/activities do they need to accomplish in this world? (name minimum of two)</p>	<p>Students need to get water from a lake. In order to do this, they need to find/build a boat.</p> <p>Students need to build a shelter for themselves to spend the night there.</p>
<p>How is the PBL method being delivered during the game? (Use the PBL cycle for reference)</p>	<p>The game is focused on a problem: what happens if a group of students gets lost in the forest. Identifying their prior knowledge (related English vocabulary and their experience with outdoor activities).</p>
<p>What can students achieve by completing tasks and activities given the world?</p> <p>Learning outcomes</p>	<p>They can learn new vocabulary connected to outdoor activities and nature.</p> <p>They can learn to collaborate and make decisions, also to form questions.</p> <p>They can learn how to prioritize their activities.</p>

<p>Do you think this specific world could be implemented successfully in your country's education curricula? Why?</p>	<p>Yes, indeed. Students like quests, like to find their way out of a „maze” and they are inspired to solve something step by step. Also, as outdoor activities are not in the curricula, at least they have this experience virtually and they get inspired in their free time to spend time in nature.</p>
<p>Activities outside the MC world</p>	<p>Preparation: group brainstorming (what can you do in the forest? Have you ever got lost in the woods?)</p> <p>Playing the game itself: group work of 2–3 students with a notebook</p> <p>Follow-up: after playing the gaming activity a short group reflection with the students - both orally (what did you like the most? What surprised you the most?) and in written form – individually (e.g.: write down three new words you have learned; translate this question into English etc.)</p>
<p>Estimated time for this task</p>	<p>90 minutes (the quest can be finished individually for homework)</p>

4.

<p>Name of the Minecraft World</p>	<p>“Green school”</p>
<p>Short summary of the purpose of this specific world</p>	<p>To help students to make their school greener. Help them discover how they can make their environment greener.</p>

<p>The focus of this world in general in ELT (grammar, vocabulary, syntax etc.)</p>	<p>Vocabulary, environmental studies, to express ability and inability, learn to express suggestions “(Let’s...)”</p>
<p>Detailed description of the knowledge/competences that this world aims to develop</p>	<ul style="list-style-type: none"> - Vocabulary of environment (plants, outdoor materials, words related to sustainability: wood, electricity, solar panels etc.) - Looking up possibilities how to be “greener in our everyday life” - Looking up possibilities how can you make a building and environment more sustainable - Decision making - Group work – collaboration - Communication – discussion - Critical thinking - Identifying actions that are necessary
<p>What tasks/activities do they need to accomplish in this world? (name minimum of two)</p>	<p>Students need to learn about solar panels and how to install them (which degree to the light etc.)</p> <p>Student can create their own garden with planting trees</p>

<p>How is the PBL method being delivered during the game? (Use the PBL cycle for reference)</p>	<p>The focus of the problem is how to make our environment more sustainable. They can gather ideas and look for more possibilities online. Based on gathered knowledge students can agree, argue and design an environment that is green and sustainable. It is important to reflect on how the sustainability issue is addressed in real life and what can be done to achieve it.</p>
<p>What can students achieve by completing tasks and activities given the world? Learning outcomes</p>	<ul style="list-style-type: none"> ● Student learn about sustainability and related solutions ● Students can discover possibilities and using “can” or “can’t” ● Students learn vocabulary related to green solutions ● Students can take and suggest actions (“Let’s do it!”) ● They can discover already existing best practices
<p>Do you think this specific world could be implemented successfully in your country’s education curricula? Why?</p>	<p>Yes, indeed. Students like to discover new solutions that create a sustainable future for them and their children. This game can help them to be involved in the topic of sustainable living. They can learn about how their lifestyle can affect the environment positively and negatively as well.</p>

<p>Activities outside the MC world</p>	<p>Preparation: group brainstorming (what can you do to be “greener”? Do you have green solutions at home? What do you do to live more sustainable?)</p> <p>Playing the game itself: group work of 2–3 students with a notebook</p> <p>Follow-up: after playing the gaming activity a short group reflection with the students – both orally (what did you like the most? What surprised you the most?) and in written form – individually (e.g.: write down ten new words you have learned; translate this question into English etc.)</p> <p>Make a list of “can do”-s and “cannot do”-s</p>
<p>Estimated time for this task</p>	<p>90 minutes (the quest can be started by a home based desktop research about green solutions and finished individually for homework)</p>

5.

<p>Name of the Minecraft world</p>	<p>“Escape room”</p>
<p>Short summary of the purpose of this specific world</p>	<p>Group of students need to escape a room before the time runs out</p>
<p>The focus of this world in general in ELT</p>	<p>Vocabulary and grammar</p>

Detailed description of the knowledge/competences that this world aims to develop	-Vocabulary of their surroundings -Grammar skills -Teamwork -Leadership
What tasks/activities they need to accomplish in this world?	They need to solve a number of puzzles that involve grammar and vocabulary in order to escape the room
How PBL method is being delivered during the game?	The game focuses on problem after problem. With each task that students complete successfully they get additional time added to their total.
What can students achieve by completing tasks and activities given the world?	They can learn new grammar and vocabulary by completing tasks and puzzles. Learn how to do better in a group.
Do you think this specific world could be implemented successfully in your country's education curricula? Why?	Yes, escape rooms have been very popular in the last few years. Students love to solve mysteries and problems one after another.
Activities outside the MC world	After the activity, students can discuss with each other how they could have solved problems faster and improve their teamwork.
Estimated time for this task	60 min

6.

Name	"Farm"
Short summary of the purpose of this specific world	A group of students spend a day at a big farm.
The focus of this world in general in ELT	Vocabulary

Detailed description of the knowledge/competences that this world aims to develop	- Vocabulary of environment (animals, vegetable, fruits, tools) - Learning about animals and how to grow crops
What tasks/activities they need to accomplish in this world?	Students have to craft tools and items on a crafting table, plant crops and feed animals.
How PBL method is being delivered during the game?	Students get to complete tasks and activities and get rated based on how they have performed.
What can students achieve by completing tasks and activities given the world?	They can learn new vocabulary connected to animals, plants and farming tools.
Do you think this specific world could be implemented successfully in your country's education curricula? Why?	Yes, I think this specific world could perfectly fit in our country's education curricula.
Activities outside the MC world	After the tasks are completed students can write down their experiences and compare them with each other.
Estimated time for this task	60 min

7.

Name of the Minecraft World	„Feeling out of sorts – there’s a bug around”
Short summary of the purpose of this specific world	Group of students feel sick and have to seek medical advice

<p>The focus of this world in general in ELT (grammar, vocabulary, syntax etc.)</p>	<p>Vocabulary, Grammar</p>
<p>Detailed description of the knowledge/competences that this world aims to develop</p>	<ul style="list-style-type: none"> - Describing the symptoms (vocabulary) - Finding the right specialist (vocabulary/decision making) - Making an appointment (appropriate register, polite language in communication) - Visiting the doctor (describing problems, communication and discussion vocabulary – check up-e.g. take a deep breath, body) - Getting advice, prescription (imperative do/do not, must/mustn't/have to) - Getting well (vocabulary) - What helped us to recover? – critical thinking, discussion
<p>What tasks/activities do they need to accomplish in this world? (name minimum of two)</p>	<p>Students need to find the right doctor to solve their problems, make an appointment, see the doctor, get medical advice and follow it, sum up how they feel and what helped them to recover</p>

<p>How is the PBL method being delivered during the game? (Use the PBL cycle for reference)</p>	<p>The game is focused on a problem: what happens if a group of students gets sick and need to find a doctor. Identifying their prior knowledge (related English vocabulary and their experience with medical specialists, body parts, appointments, giving advice and following advice, feeling well/unwell).</p>
<p>What can students achieve by completing tasks and activities given the world? Learning outcomes</p>	<p>They can learn new vocabulary connected to illnesses, making appointments, body parts, medical procedures.</p> <p>They can learn to collaborate and make a decisions, express their feelings, form questions, follow advice (by saying what they have to/must/mustn't do, imperatives)</p>
<p>Do you think this specific world could be implemented successfully in your country's education curricula? Why?</p>	<p>Yes, making an appointment when feeling sick, seeing a doctor and following their order is one of the essential life-saving skills students should acquire.</p>

<p>Activities outside the MC world</p>	<p>Preparation: group brainstorming (what's wrong with me, where does it hurt and why?)</p> <p>Playing the game itself: groupwork of 2–3 students with a notebook</p> <p>Follow-up: after playing the gaming activity a short group discussion with the students – What was the matter? Do you often see a doctor? Do you faint at the sight of blood? What was new for you?</p> <p>Role-play: making an appointment, visiting a doctor</p>
<p>Estimated time for this task</p>	<p>90 minutes (the quest can be finished individually for homework)</p>

8.

<p>Name of the Minecraft World</p>	<p>„Throwing a party”</p>
<p>Short summary of the purpose of this specific world</p>	<p>Group of students hold a party</p>
<p>The focus of this world in general in ELT (grammar, vocabulary, syntax etc.)</p>	<p>Vocabulary, Grammar, Syntax</p>

<p>Detailed description of the knowledge/competences that this world aims to develop</p>	<ul style="list-style-type: none"> - Deciding on theme/programme, venue, people invited (vocabulary, grammar, syntax, questions) - Responsibilities of each member (communication, decision making, dividing roles) - Making a shopping list (food and drinks) - Writing invitations/posters – social media posts (persuasive language) - Writing texts (commonly used abbreviations) - Doing the shopping (vocabulary) - Dressing up (clothes, make-up, hairstyles – vocab, asking for advice) - Party time! (small talk, fun, food, activities) - The day after – the highlights
<p>What tasks/activities do they need to accomplish in this world? (name minimum of two)</p>	<p>Students need to organize a party, decide on its programme, venue, people invited, decide on responsibilities, make a shopping list, write a social media post, write texts, dress up, turn up at the party and reflect on it.</p>



<p>How is the PBL method being delivered during the game? (Use the PBL cycle for reference)</p>	<p>The game is focused on a problem: students want to have a party and must organize everything on their own.</p> <p>Brushing-off related vocabulary, grammar for plans, intentions, suggestions. Discussion, critical thinking, dividing tasks</p> <p>Writing to a specific audience, vocabulary for shopping, clothes and style.</p> <p>Party (vocabulary, politeness)</p> <p>Reflection</p>
<p>What can students achieve by completing tasks and activities given the world?</p> <p>Learning outcomes</p>	<p>They can learn new vocabulary connected to events, shopping, dressing up, making plans and decisions, persuasive written language, small talk).</p> <p>They can learn to collaborate and make a decisions, share responsibilities, have a polite conversation express their feelings, form questions, follow advice</p>

<p>Do you think this specific world could be implemented successfully in your country's education curricula? Why?</p>	<p>Yes, similar tasks are part of school leaving exams and organizing an event is a common topic.</p>
<p>Activities outside the MC world</p>	<p>Preparation: group brainstorming (what do we need to keep in mind when organizing a party? Share your personal experience: what might get wrong?)</p> <p>Playing the game itself: groupwork of 2–3 students with a notebook</p> <p>Follow-up:after playing the gaming activity a short group discussion with the students – What is the hardest thing about organizing a party and why? What is the thing you like best about parties? Are you thinking of throwing a party? When was it last time you were at a party?</p>
<p>Estimated time for this task</p>	<p>90 minutes (the quest can be finished individually for homework)</p>

9.

<p>Name of the Minecraft World</p>	<p>“The Treasure Hunt”</p>
------------------------------------	-----------------------------------

<p>Short summary of the purpose of this specific world</p>	<p>Children re-read the longer passage with a partner, taking turns reading a paragraph and assisting one another with any difficult language.</p>
<p>The focus of this world in general in ELT (grammar, vocabulary, syntax etc.)</p>	<p>Point, evidence, explanation (P.E.E.) and Vocabulary</p>
<p>Detailed description of the knowledge/competences that this world aims to develop</p>	<p>Principal Objectives:</p> <ul style="list-style-type: none"> •To utilize the point, evidence, and explanation (P.E.E.) prompt when responding to text-based inquiries. • Making predictions based on presented and implied facts
<p>What tasks/activities do they need to accomplish in this world? (name minimum of two)</p>	<p>“The Man of the Island” utilizes context to learn a new language, practice making cross-text comparisons, and compose an educational text.</p>

<p>How is the PBL method being delivered during the game? (Use the PBL cycle for reference)</p>	<p>This set of lessons is intended to teach English Language Arts themes via the study of <i>Treasure Island</i> by Robert Louis Stevenson. Extended reading aloud/shared reading of "My Shore Adventure". You can find excerpts under the external resources section. Students read the shorter passage with a partner, taking turns reading a paragraph and offering assistance with any challenging terminology.</p>
<p>What can students achieve by completing tasks and activities given the world?</p> <p>Learning outcomes</p>	<p>Students participate actively in all activities.</p> <p>Within the context of the text, students can explain the meaning of new terminology.</p> <p>Students can create similarities both inside and between texts.</p> <p>Students can compose educational texts.</p>
<p>Do you think this specific world could be implemented successfully in your country's education curricula? Why?</p>	<p>Yes, absolutely.</p> <p>The game will allow young learners to practice their English language skills in an interactive island setting.</p>

Activities outside the MC world	In the follow-up writing activity, based on their experience with the game and the Treasure Island literature, children produce an instruction text titled "Ben Gunn's Guide to Island Survival." This writing project progresses over a series of lessons and includes involvement with instructional materials, sentence level development work, and modeling of best practices.
Estimated time for this task	90 minutes (the writing can be finished individually for homework)

10.

Name of the Minecraft World	„Airport” (A2-B1)
Short summary of the purpose of this specific world	Can be solved individually or in a group. The student arrives at the airport, wants to fly to another destination and has to overcome all the situations and obstacles that may arise at the airport.
The focus of this world in general in ELT (grammar, vocabulary, syntax etc.)	Vocabulary

<p>Detailed description of the knowledge/competences that this world aims to develop</p>	<ul style="list-style-type: none"> - Vocabulary of environment (words and terms connected to the situation at the airport) - Learning about what to do at the airport - Decision making - Group Work – collaboration - Communication – discussion - Critical thinking - Identifying necessary actions
<p>What tasks/activities do they need to accomplish in this world? (name minimum of two)</p>	<p>Students will have to go through the entire process at the airport such as buying a ticket, check-in, finding the right gate for departure, the check-in process, post-arrival customs or other checks to deal with lost luggage.</p>
<p>How is the PBL method being delivered during the game? (Use the PBL cycle for reference)</p>	<p>The situation is based on solving problem situations that can occur at the airport such as lost luggage.</p>
<p>What can students achieve by completing tasks and activities given the world?</p> <p>Learning outcomes</p>	<p>They will learn new vocabulary related to situations at the airport.</p> <p>Collaboration and critical thinking skills will be required in group work.</p> <p>Students will learn to deal with crisis situations they may encounter in the real world.</p>

<p>Do you think this specific world could be implemented successfully in your country's education curricula? Why?</p>	<p>It certainly does. There are plenty of problematic situations at the airport that students may encounter. Since it is not possible to take pupils directly to the airport and experience these situations in a realistic way, bringing this situation into a virtual environment is ideal. Moreover, this topic is discussed in English language classes in Czech schools. If they go through the airport process virtually, they can feel much more comfortable and confident in a real situation.</p>
<p>Activities outside the MC world</p>	<p>Preparation – introducing the student to the vocabulary</p> <p>Brainstorming on the topic What can I experience at the airport? What documents do I need to fly to different countries (such as ESTA to the USA).</p> <p>Post-game activities – reviewing the game, listing other words they encountered during the game situations, preparing short situational skits that can be acted out in class.</p>
<p>Estimated time for this task</p>	<p>2 lessons (45 minutes each)</p>

11.

Name of the Minecraft World	„Shopping mall” (A2-B1)
Short summary of the purpose of this specific world	Can be solved individually or in a group. Students come to a shopping mall and are asked to purchase specific goods.
The focus of this world in general in ELT (grammar, vocabulary, syntax etc.)	Vocabulary
Detailed description of the knowledge/competences that this world aims to develop	<ul style="list-style-type: none"> - Vocabulary of environment (words and terms connected to the situation at the shopping mall) - Communication about payment methods - Conversation with the shop assistant - Decision making - Groupwork – collaboration - Communication – discussion - Critical thinking - Identifying actions that are necessary

<p>What tasks/activities do they need to accomplish in this world? (name minimum of two)</p>	<p>Students will be tasked with shopping for specific items at the mall. First, students will be tasked with identifying the correct stores from the map. Some items will be available for cash payment only and others will be available for card payment only. They will have to withdraw money from an ATM. During the game there will be interviews with various shop assistants.</p>
<p>How is the PBL method being delivered during the game? (Use the PBL cycle for reference)</p>	<p>The situation is based on solving problematic situations that may arise when shopping, such as the possibility to pay only in cash, etc.</p>
<p>What can students achieve by completing tasks and activities given the world?</p> <p>Learning outcomes</p>	<p>They will learn new vocabulary related to shopping situations.</p> <p>In group work, collaborative and critical thinking skills will be required, for example, to find the right deal.</p> <p>They will learn to deal with crisis situations they may encounter in the real world.</p>
<p>Do you think this specific world could be implemented successfully in your country's education curricula? Why?</p>	<p>It definitely is. This is a situation that they are bound to encounter when traveling abroad. The opportunity to experience such a situation in a virtual environment will allow students to better acquire vocabulary and prepare for a similar real-life situation. Besides, the vocabulary and phrases needed for this are included in most English coursebooks.</p>

<p>Activities outside the MC world</p>	<p>Preparation – introducing students to vocabulary</p> <p>Dividing students into groups, assigning a shopping list.</p> <p>Post-game activities – reviewing the game, listing other words they encountered during the game situations, preparing short situational scenesthat can be acted out in class.</p>
<p>Estimated time for this task</p>	<p>2 lessons (45 minutes each)</p>

References

BG:

[Седем училища в страната бяха отличени с приза "Дигитално училище на България" в конкурса на А1 - PR Сфера - Дневник \(dnevnik.bg\)](#)

Списание: Образование и технологии брой 9/2018 г.

<https://tryengineering.org/bg/news/teachers-use-minecraft-to-make-distance-learning-fun/>

<https://angelov.innovateconsult.net/bg/minecraft-%D0%B2-%D0%BE%D0%B1%D1%80%D0%B0%D0%B7%D0%BE%D0%BD%D0%B8%D0%B5%D1%82%D0%BE/>

<https://tzarsimeon.bg/%D1%83%D1%87%D0%B8%D0%BB%D0%B8%D1%89%D0%B5-%D0%B2-%D0%B8%D0%B3%D1%80%D0%B0%D1%82%D0%B0->

[%D0%BC%D0%B0%D0%B9%D0%BD%D0%BA%D1%80%D0%B0%D1%84%D1%82-%D1%83%D0%BB%D0%B5%D1%81%D0%BD%D1%8F%D0%B2%D0%B0-%D0%B4/](#)

<http://pgotpernik.com/%D0%BF%D1%80%D0%BE%D0%B5%D0%BA%D1%82-game-literacy-and-learning-%D0%B8%D0%B3%D1%80%D0%B8%D1%82%D0%B5-%D0%B2-%D0%BE%D0%B1%D1%83%D1%87%D0%B5%D0%BD%D0%B8%D0%B5%D1%82%D0%BE/>

<https://pdfcoffee.com/-672-pdf-free.html>

<http://www.eddev.eu/lzllzdania/AttachmentsEdited/Nina%20statia.pdf?cls=file>

CY:

https://www.researchgate.net/publication/242612314_Problem_Based_Learning_in_the_Educational_System_of_Cyprus

CZ:

Tereza Češková (2020) Příležitosti k řešení competence k řešení problémů ve výuce na 1.stupni (na příkladu přírodovědného učiva), PhD thesis.

Microsoft Education - <https://skolstvi.ms/home/minecraft-education-edition/>

Výroční zpráva České školní inspekce za školní rok 2015. Praha: Česká školní inspekce, [1997?]-. ISBN 80-88087-06-9. Dostupné z:

http://www.csicr.cz/html/VZCSI2015_2016/html5/index.html?&locale=CSY&pn=1

NOVOSÁK, Jiří, Zdeněk MODRÁČEK, Petr SUCHOMEL, Ondřej ANDRYS, Tomáš ZATLOUKAL a Dana PRAŽÁKOVÁ. Společné znaky vzdělávání v úspěšných základních školách: tematická zpráva. Praha: Česká školní inspekce, 2021. ISBN 978-80-88087-58-8. Dostupné z: https://www.csicr.cz/CSICR/media/Elektronicke-publikace/2021/TZ_Spolecne_znaky_vzdelavani_v_uspesnych_ZS/html5/index.html?pn=1

LEBEDA, Tomáš, Daniel MAREK, Tomáš ZATLOUKAL, Ondřej ANDRYS, Jakub Lysek, Roman FOLWARCZNY, Kateřina ZYMOVÁ, Michal SOUKUP a Josef BASL. Vstřícné prostředí a vztahy ve škole a jejich vliv na průběh a výsledky vzdělávání. Vybraná zjištění ze sekundárních analýz. Praha: Česká školní inspekce, 2021. Dostupné z: https://www.csicr.cz/html/2021/Vybrana_zjistieni_ze_sekundarnich_analyz/html5/index.html?&locale=CSY&pn=1

CITOVSKÁ, Vendula. Netradiční učební metody vzdělávání [online]. Brno, 2013 [cit. 2022-05-23]. Dostupné z: <https://is.muni.cz/th/rf3h8/cast2.pdf>. Diplomová práce. Masarykova univerzita, Pedagogická fakulta. Vedoucí práce PaedDr. Jan Štáva CSc.

Minecraft: Education Edition – Microsoft pro školství (skolstvi.ms)
-<https://skolstvi.ms/home/minecraft-education-edition/>

[Project Minecraft School | Gymnázium, České Budějovice, Česká 64 \(gymceska.cz\)](https://gymceska.cz)

[Vlajka ČR v Minecraft Education Edition - YouTube](https://www.youtube.com/watch?v=...)

GR:

https://www.reddit.com/r/Minecraft/comments/qrc9p3/i_need_a_greek_building_seedreal_mworld_to_join_so/

NE:

Dirk Humalda & Wichard Zwaal (2016) Problem-based learning in the first or second language: Does it make a difference? *Research in Hospitality Management*, 6:2, 207-212, DOI: 10.1080/22243534.2016.1253292

Harry A.J Struijker Boudier (2002) Problem-based learning: the Maastricht experience DOI:[https://doi.org/10.1016/S0165-6147\(00\)01980-5](https://doi.org/10.1016/S0165-6147(00)01980-5)

Huang, R. (2005). Chinese international students' perceptions of the problem-based learning experience. *Journal of Hospitality, Leisure, Sport and Tourism Education*, 4(2), 36–43. <http://dx.doi.org/10.3794/johlste.42.108>

Maastricht University <https://www.maastrichtuniversity.nl/education/why-um/problem-based-learning>

Minecraft at school – 2 practical examples (2022) - Wietse van Bruggen and Els Booi <https://www.kennisnet.nl/artikel/16100/minecraft-op-school-2-voorbeelden-uit-de-praktijk/>

Minecraft Education in the classroom <https://www.apsitdiensten.nl/toepassen-praktijk/21e-eeuwse-vaardigheden/minecraft/minecraft-education-in-de-klas>

Probleem gestuurd Onderwijs – PGO (2006) <https://www.beteronderwijsnederland.nl/forum/probleem-gestuurd-onderwijs-pgo-2/>

Radboud University <https://www.ru.nl/english/education/study-radboud/strengths-radboud-university/six-reasons-to-study-holland/#:~:text=Problem%2Dbased%20learning%20system,%2Dstudy%20and%20self%2Ddiscipline.>



2021-1-CZ01-KA220-SCH-000032698



Funded by
the European Union