



BARCELONA

Play in the classroom

We learn through play, as everyone knows. However, although it has been much discussed for some years now, play in the classroom is still very much a pending subject. The interest is clear, as can be seen in the fact that activities to popularise the use of play in the classroom always have an audience, and game-based learning courses are always in great demand. Games in education arouse interest and curiosity. So what's holding us back? Fear of the unknown.

Dau Barcelona wants to bring you closer to the reality of play in the classroom, and that's why we have asked some of the teachers who are pioneers in the use of board games in class to tell us about their experiences. Because experience is the best way to overcome fear. At the end of the day, games are one more tool available to teachers to help them to pass on knowledge and develop skills in children and young people, and also in adults. Play is not just for children: games are an effective educational tool that can be used from P3 right through to university level and beyond.



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I play, I learn: research and games for the learning process.

If we look for the origins of academic interest in the use of games as a tool to improve learning, we find that in 1970 Clark C. Abt published the book that is considered to be the text that formally established the concept of the 'serious game'. In the book, Abt identified the game as a human activity with different implications (fun, competition, interaction, challenge or problem solving, for example) and noted that the key characteristic of serious games was a specific and planned educational goal.

He argued that games have two sides, each of which can be exploited: a rational or analytical side, and an emotional or creative side. The rational part focuses more on the formal structure of the game (procedures, rules, available information, etc.), and the emotional part on the experience and motivation (fun, competition, confrontation, spirit, and so on.). Abt was not thinking solely in terms of formal education, but of games designed to instruct and to provide training within public administrative bodies and companies, as well as to plan, research, analyse and evaluate problems. This connects with a concept worked on by other authors: meaningful play. In the case of learning, play becomes meaningful when the end result is clearly discernible, and linked to the objectives set.

Since then, and particularly in education, in an increasingly digital environment analogue games have been used in the classroom at all levels, in a wide range of formats, and based on different methods. Although it is difficult to list all the possibilities, we can talk about game-based learning (through serious games or commercial games), gamification, creative game design and educational escape rooms - and no doubt there are a few I've left out.

In a review of the specialised bibliography compiled by colleagues from the URV's Department of Communication Studies (Natàlia Lozano, Anna Sendra and Jordi Prades), we realised that all these experiences have in common the tension between three aspects that are necessarily interlinked: the most playful part (freedom, experience, process), the specific characteristics of 'game' as a concept (rules, variable results, measurable objectives) and the educational aspect (a strategically designed purpose). Ensuring a balance between these parameters is one of the main tasks of people designing play activities, and this balance is what is sure to determine success or failure. There is no magic formula here, and only experience and expertise will make it possible to find the right fit in each and every situation. For example, commercial board games have a great deal of potential for play, as they are designed for entertainment rather than educational purposes. The challenge is how to incorporate learning objectives without sacrificing the experience of playing a game.

In parallel to the growth in ways of using games in the classroom, the academic world's interest in evaluating them has also grown. In fact, this is important in that it

takes us out of the world of expectations and preconceived ideas, by leading us to analyses of real cases. There's a whole universe of specialised scientific journals featuring studies and concrete examples as diverse as the use of role-playing games in teacher training, commercial board games at various educational levels, educational escape rooms in libraries or as an element in a pharmacy degree, the redesign of a board game as CO₂ (Vital Lacerda, 2012) to raise awareness about climate change, or the design of a game to explain the socio-cultural complexity of a country, to mention but a few. It is important to note that these experiences are not limited to early or primary education, but are also applicable in higher education.

Overall, it is agreed that the use of games in any format allows for active and dynamic learning, placing students at the centre of the process. Games make it possible to solve problems, analyse situations and make decisions or take action aimed at achieving an individual or collective goal. On the other hand, games stimulate and enhance self-reflection, boost motivation and increase the engagement of the participants with the content. In fact, increased interest is one of the aspects most frequently noted in the articles on the subject. Other studies focus on the interaction space that is generated while playing. Games become a framework for relationships and communication between participants, allowing them to work on interpersonal, collaboration and communication skills, and to explore their own identity.

In the case of simulations, games allow students to approach complex contexts through models that try to recreate reality in a playful manner. In this way, players understand how their decisions impact the overall situation, and must adapt to changes and know how to react. From another point of view, games permit a focus on creativity and innovation, allowing the participants to be involved in the creation of materials or activities for games. The creative design of games by students is a whole world ready to be explored.

One thing that is repeatedly emphasised in the analysis of analogue games in education is the "transparency" of the rule system. Clarity with regard to how the system works on the one hand allows players to be fully aware of the implications of their decisions, and on the other enables greater flexibility and speed when it comes to making modifications or changes.

The academic literature also highlights the challenges involved in applying these strategies: the learning curve concerning the rules, the requirements in terms of space, time and resources, the need for a playful spirit in both students and teachers, the resistance of the system itself to change, the possible trivialisation of content, and so on. But it is precisely the awareness of such obstacles that should help us to be able to design play activities in a more conscious and effective way.

In conclusion, I would like to borrow a few words from Marshal McLuhan's Classroom Without Walls: *'it is misleading to suppose that there's any basic difference between education and entertainment.'* On the one hand, this way of thinking absolves people of their responsibility to analyse what they consume, and on the other hand it has always been true that learning is more effective when it is also enjoyable. Games are a good option for developing this idea of a classroom without walls, a cross-cutting space for collaboration, communication and reflection, one where content is not transmitted in a top-down way, but is acquired by students through direct participation.

JAN GONZALO

PROFESSOR AT THE DEPARTAMENTO DE ESTUDIOS DE COMUNICACIÓN OF THE URV.

Students playing at the URV



Colonial Diplomacy (Peter Hawes)



Time line self made for the class



The importance of games in the classroom

To play is to do something joyfully in order to entertain oneself, have fun or **develop certain skills.**

Playing board games offers multiple benefits and develops some of the values and skills we try to teach children and teenagers at school.

Playing helps them to:

- Develop their motor skills, concentration, observation, memory, creativity and imagination.
- Understand rules and apply them correctly.
- Comply with social norms and socialise.
- Improve their tolerance to frustration and defeat, and show respect in victory.
- Make decisions and think about strategies and possible future improvements.

As well as the general benefits of playing, games can be brought into the classroom as a pedagogical tool, as:

- + They allow for multidisciplinary learning: reading comprehension when reading instructions, problem solving and logic when developing a strategy, and numbers and calculations when counting, on top of the content of the game itself, which may be related to experimental sciences, history, art, etc.
- + They offer a fun, playful way of teaching repetitive, abstract, boring concepts that are difficult to grasp.
- + They encourage meaningful learning.
- + They help to integrate pupils with learning difficulties.
- + They present concepts that need to be learned as a challenge, a competition, etc.
- + When they are played in pairs or small groups, they encourage cooperation and collaboration.

To make the most of the pedagogical benefits of games, the teacher must take various steps before the class:

- + First and fundamentally: be satisfied that the games are a pedagogical tool and will help the pupils to learn the content they want to teach.
- + Define the pedagogical aim to be fulfilled in the games sessions.

+ Be familiar with the game in order to be able to solve any queries that might come up without losing play time and, therefore, learning time.

+ Select the appropriate games for the class, taking into account:

- The number of copies available and the number of pupils playing. If there are not enough games or too many pupils, different strategies can be used at the same time in different sessions: one group can go over theory, another can do some formal exercises in their workbooks, and another can play games. If the aim is to get everyone playing, the teacher can bring various games and rotate them around the groups, or pupils can play in pairs or small groups to encourage debate in the decision-making process.

- The time that elapses between a player's turns, because if they have to wait a long time for their turn to come around again, they will lose interest in the game and the didactic and game-based aims will not be achieved.

- The difficulty of the game. Starting to play it must be easy, so it is better to avoid games with a lot of pieces, a complex set-up process, or instructions that are difficult to understand or apply.

- The size of the game: mainly to ensure ease of transport to the classroom if several copies of the same game are involved, rather than because of the space it takes up on the table.

- The 5-10-15 principle to choose a suitable game. This corresponds to the time it takes to explain the game, its financial cost, and the time it takes to play one game. Games that take around 15 minutes to play are the best for the classroom, as it means the pupils can play several rounds and look at different strategies in a single session, and pedagogical feedback can be given.

During the classroom games session, the teacher must do the following:

+ Make sure the pupils are playing the game correctly.

+ Leave some free playing time, without any intervention from the teacher. The teacher should only intervene to help the pupils if they are stuck or to introduce challenges based on questions that make the players think.

+ Leave time for pedagogical feedback, during which the teacher reviews the aims they had in mind when bringing the games into the classroom. The pupils must not think that they only spent the session playing, not learning.

One option is to set 'homework' to play the same games at home after the session. If a suitable game with good replayability has been selected, the pupils will carry on studying the content taught in the classroom without realising, while having fun with friends or family.

In nursery and early primary school, playing is one of the most common, natural activities that take place in the classroom every day. In contrast, in later primary school, secondary school and sixth form, playing is stigmatised; it is seen as a waste of time ('school is for working, not playing and wasting time'). The perception of wasting time is even stronger with board games, specifically.

Thankfully, this opinion is starting to be seen as old-fashioned, and more and more teachers are using games in the classroom at any age. Board games are becoming an established pedagogical tool. One current leading method is GBL, or game-based learning. Furthermore, collaboration, research and experience exchange networks are being built to encourage the use of games in the classroom.

If you need more resources or would like to find games to use in the classroom, come to DAU. Come as a teacher, come to play, come to have fun. DAU Barcelona 2021.

Learning is not a game, but you can learn by playing.

LUÍS CROS LOMBARTE
HIGH SCHOOL TEACHER AT ESCOLA PIA DE SARRIÀ
SET GROUP COORDINATOR.

Teachers learning how to play a game.



The game caught teachers' attention.



Play in the science lab

Playing, doing science and educating are three things that humanity has been doing practically since the brains of Homo genus grew big enough to start asking questions to find out more about the world they lived in, to transmit information to each other, and to entertain themselves when the hard work of survival gave them some space for relaxation and leisure. Playing, doing science and educating are three activities that are as old as our species itself (or possibly even older!), and it is therefore rather surprising that combining them all into play in the science lab seems such an innovative, modern idea.

Obviously, the evolution of scientific thought, thoughts on leisure and on the educational process has not been uniform throughout history. There have been periods of splendour, and other darker times, and there have been references to all three (both positive and negative) in nearly all civilisations. However, our perspective is a short-term one, and if we compare the dissection of live frogs in science classes less than half a century ago with the opportunity to play a board game to understand how cells work, it will probably seem to us that the latter is a totally new, ground-breaking methodology. Nothing could be further from the truth, but what is authentically new and 21st century is the availability of a broad range of both physical and digital game-based resources, with teaching staff receiving specific training on how to use these tools. We may not have discovered garlic soup, but this change of educational mentality has brought new ingredients and improvements to the recipe that we can put to good use in our teaching, bringing science to our students in a more motivating, entertaining and meaningful way.

Within a competency-based learning and skills evaluation, in both primary and secondary schools, the use of games as a teaching resource makes it possible to focus attention on the 'how' rather than the 'what': through games (of our own creation or existing ones) we can simulate processes in a more experiential and hands-on way, instead of using more traditional tools such as animations or videos. Board games make it possible for students to immerse themselves in a narrative that is very useful for facilitating an understanding of natural processes, and of the big hypotheses which are studied in science, while also generating the motivation for obtaining more profound, detailed knowledge of the game (both the mechanics and the narrative) in order to win. All in all, self-learning skills are developed: creating strategies, organising time, curiosity, motivation, etc., and in the area of science and technology these games help pupils to gain competences related to scientific models, and their use in providing explanations for everyday situations. One may think that play is unnecessary in a scientific environment, where the objective is for pupils to learn about scientific methods and how to experiment, but not everything to be studied in science can be easily reproduced in a school laboratory. Therefore, having models based on play can provide an advantage when planning both the introduction and structuring of that knowledge, and even

its application. Ultimately, if pupils have a thorough knowledge of the narrative in a scientific board game, it will be much easier for them to actually play it, so learning based on games in the classroom not only makes it possible to work on classroom skills, but also to evaluate those skills.

Clearly, the entire process needs to be regulated by a guide that explains the steps that need to be taken, steering pupils' paths through the game and helping them to obtain the knowledge needed to acquire proficiency in science. The drafting of this guide needs to be an essential part of game-based learning, but under no circumstances should it be an excuse for not doing so: it will take time, but the value of learning acquired in this way is undoubtedly worth the effort made by our pupils.

After that, all we have to do is enjoy the experience!

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Cytosis (John Coveyou)



Games and language learning

Play is essentially a social activity. Let's leave the aspect of play *per se* to one side, and focus on how games can become an extraordinarily effective tool for the development of linguistic and communicative competence.

The social dimension of play is key to understanding and analysing the fact that the interaction among participants is the focal point of the game, and that this reinforces functional linguistic abilities and other aspects of language explained in the most serious studies by various authors throughout history. Code, sender, receiver, channel, interference, register, syntax, morphology, lexis, etc.: and we could go on.

So, what do games bring to education? Are they valid tools for fostering language acquisition and do they offer opportunities for an improvement in content and in linguistic abilities? How do they do this?

After using games in the classroom as a vehicle for curricular content (presenting, giving examples, investigating, summarising and evaluating) for over fifteen years, I have been able to see the way games contextualise the use of basic skills, listening and speaking being the most obvious here. However, reading is also required, in order to reinforce communicative exchange between the players, as is writing in games where moves have to be programmed, or skill is required in terms of the mechanics of the game.

Reading the rules, understanding them, being able to discuss them and apply them properly in the context of the game may seem like a minor goal, but linguistically, it undeniably involves the skill of reading comprehension: you read to be able to play and to understand the rules so that you can use them in the sort of fluid, dynamic environment represented by the game. Even if the game framework remains the same, the variables involved mean that the approach and the application of the rules, the communication of those rules and the understanding of different aspects of the game by the participants clearly require communicative versatility.

When the prerequisites for interacting with the mechanics of the game, and for interactions between participants are established (e.g. in order to throw the dice, a specific construction/ specific vocabulary/ verb tense, etc. needs to be used), we are ensuring that the meaning of the language and its basic building blocks acquire an importance that would not be so clear within a different context. Learning is necessary in order to play the game, to take part along with the other players. Pupils understand and consciously use the language that is needed because they want to play, and it is here that **extraordinary legislation supporting the use of games in the classroom comes in: Order ECD 65/2015 describes the relationship between competences, content and evaluation criteria for primary, secondary and baccalaureate level education**, defining each skill and



how it can be developed through games, **especially in Appendix 2, which contains the methodological guidance that facilitates skills-based work in the classroom.** Play is a tool that exemplifies, in a real, extraordinary way, everything stated in the above-mentioned order. One of the most obvious examples of the potential for skills development, in linguistic and communicative terms, is that of role playing games, thanks to the unavoidable social interaction with the rules, the development of the characters on paper and the gaining of an understanding of their backgrounds that is necessary in order to be able to play the game. If this is not an improvement of language skills within a competence-oriented environment where expressive and communicative abilities can be explored, I don't know what would be.

Play is a tool that, in the right hands can become a catalyst for learning, and that evidences the application of knowledge, skills and abilities in a practical way.

Don't think twice about it: come, play; make play a memorable experience and appraise your social, integrative, competitive and exemplary potential in terms of the values that are so much in demand in our society - teamwork, analysis, challenge, strategy, cooperation, accepting one's limitations and abilities and respecting the rules, as well as the perspective that play makes us equal while we are taking part, because when we play, we are all voluntarily following the same rules.

I could go on, but it's better that you see for yourself: it's time to play! Come on, it's getting late!

"Learning is experience; everything else is information", a quote attributed to Albert Einstein. Play is putting information into practice. And yes, in order to show that you know how to do something, you have to actually do it, don't you?

Welcome to DAU: play, learn and enjoy the unforgettable experience of play.

ÓSCAR RECIO COLL

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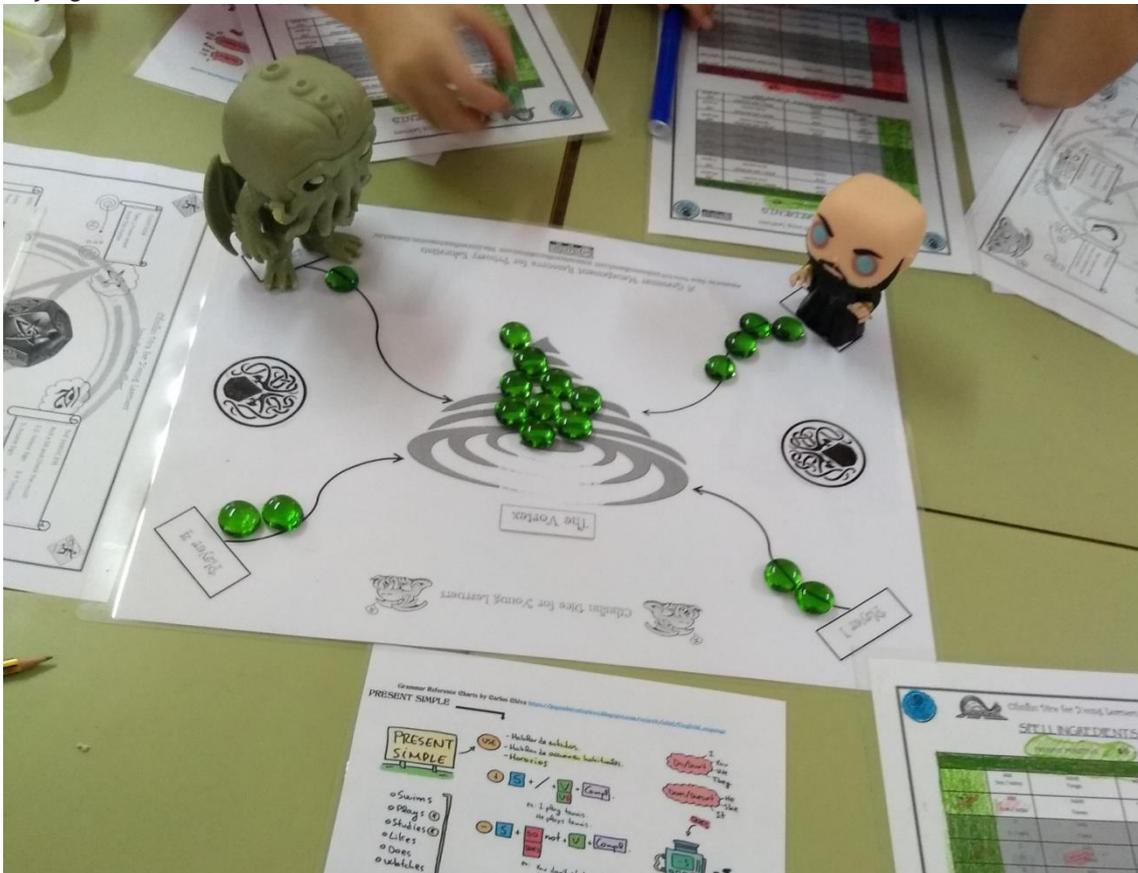
INSTAGRAM: @MRWOLFTEACHER

PHYSICAL EDUCATION, PRIMARY AND ENGLISH TEACHER.

"Horror on the Orient Express" Activity



Playing, we worked!



Social science in play

Social sciences are concerned with aspects of people not so much as biological beings but rather as individuals interacting with others within a given system or society. In this field, the behaviour of human beings, their evolution, their adaptation to their environment, laws, production systems, economic inequalities, their relationship with the environment, economic, political and social behaviour, etc., is a source of study. Social sciences, therefore, include knowledge from many areas and disciplines, such as history, geography, anthropology, political science, sociology, economics, entrepreneurship, demography and art.

From very early on, children construct representations of the world and learn to elaborate personal explanations of what surrounds them. Doing so whilst playing helps to make explicit the preconceptions and conceptions of the world that form the basis of personal learning processes. Indeed, games help to provide our children and young people with knowledge to construct concepts, to interpret problems at different spatial and temporal scales, and to situate themselves in the world and, at the same time, to develop citizenship awareness.

If we review some studies, we find statements that justify the power of play. In his book *Homo Ludens*, Johan Huizinga already defined the human being as a being that plays and said that the element of play underpins all areas of human activity. Jean Piaget affirmed that play is a means of **understanding how the world works**. On the other hand, Pepe Pedraz, in his book *Aprende jugando (Learning by playing)*, talks about games as **social elements** that strengthen emotional and communication links and in which different skills are unconsciously developed in an invisible and motivating way.

Motivation is extremely important in **educational environments** because it can influence what, when and how our students learn. **Learning without excitement doesn't exist** and games are a good way to excite, to motivate and to learn.

In the **field of education**, through **board games** we can work on all the dimensions into which social sciences are divided. On the one hand, games linked to the **historical dimension** will help students to know and critically understand the past in order to understand the present and, thus, to see that the world we live in has been shaped by the actions of the generations that have preceded us. With regard to the **geographical dimension**, through the games we use we aim to ensure that students are able to understand and analyse the relationship between human societies and the environment, and to locate the phenomena that occur as a result of this interaction. Through the **cultural and artistic dimension**, we will aim for students to know, understand, interpret and critically value different cultural and artistic manifestations. And all games that contribute to the formation of a democratic, critical citizenship committed to improving society and the environment can be related to the **citizenship dimension**.

Not only **board games** will help to motivate pupils: **gamification** will also be another proposal to take into account, as our pupils will experience a game in an activity that is not a game. In gamification, educational activities are conceived as learning experiences and are designed with game-like elements.

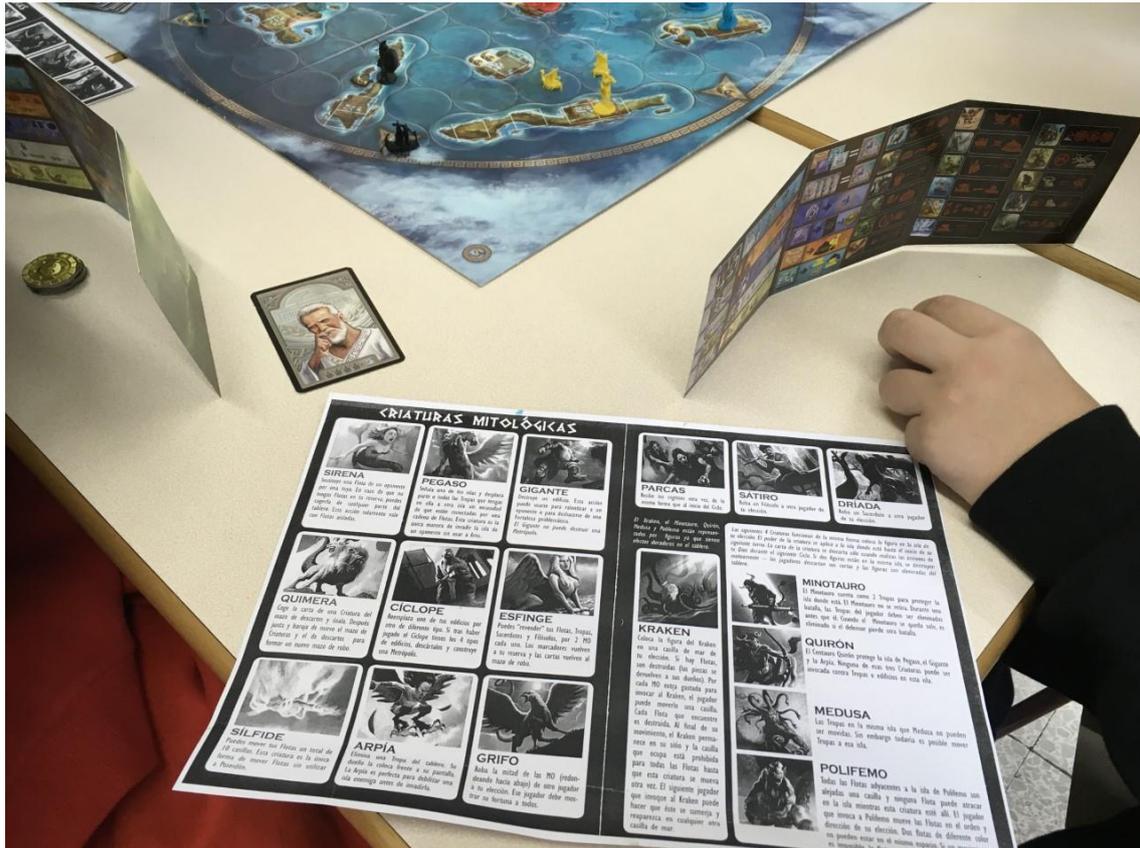
Role-playing games will also contribute to working on the dimensions of this social area. Role-playing games simulate a situation that represents real life. Students, therefore, can learn concepts through active learning by simulating a historical scenario, for example, in which they have to apply different content.

Escape and breakout games also allow the inclusion of any curricular content, promote collaboration and teamwork, develop problem-solving skills, improve verbal competence and build deductive thinking.

Board games, gamification, role-playing games, escapes and breakouts are playful proposals to work on social sciences and provoke motivation, fun, imagination, creativity, learning, and so on. Thus, both children and young people and adults can enjoy and learn by playing. Games are a motivating tool that helps us to teach and, above all, to have fun. Let's play then!

MERITXELL NIETO SANTACREU
CLASSICAL PHILOLOGIST AND PSYCHOLOGIST

Cyclades (Bruno Cathala y Ludovic Maublanc)



Mathematics at the core of games

Of all the disciplines of human knowledge that are taught at school, which can boast of having a part called "game theory" which even led to a prodigious mind winning the Nobel Prize? That's right, Mathematics.

Playing is at the core of mathematics as much as mathematics are at the core of playing. Even so, teachers, parents and pupils all agree that maths is something very serious that cannot be played with. What a contradiction, right?

As teachers we impose mathematical exercises as mechanical and repetitive tasks, with the aim of ensuring the recipes become firmly lodged in the students' minds. We want them to learn to solve second-grade equations as easily as they learn to make a paella. And yet, when you really appreciate mathematics, is when you look at the problems you have to solve as challenges, as puzzles, in short, as games. Releasing the same amount of endorphins when you solve them as when you win a game.

Let's go to the classroom, let's be practical. Can we use board games in a maths class?

The subjects are subject-matter bound, learning mathematics is seen as a basis for other subjects and, therefore, the pressure to comply with the syllabus is a burden for teachers who skip the discipline and use a classroom game as a tool to impart learning. Thus, it is in a maths class where the use of board games will face the most resistance. Any maths teacher who wants to use games will have to offer a compelling justification and be very assured of the methodology they use. We have been warned.

I have identified two areas of mathematics in which it seems that the board game fits in very well.

The first is basic algebra and calculus. Many games incorporate numbered tracks, punctuation and numbers in general. In a role-playing game, for example, a character's life will be a number that will go down with the wounds they suffer and up with healing potions. Perhaps this is the most obvious and uncontested application. Who hasn't learned to count to twenty by playing Ludo, right? So if we make sure that children get into the game, we will soon have them counting, adding, subtracting, multiplying and dividing without them even noticing it. And what happens when they make a mistake? The rest of the players will correct them, within the magic circle of the game. This will be acceptable for the first few years, when we are just learning how to count, and in the later years, the sky is the limit: even adults can take advantage of the algebraic calculation exercises that games propose.

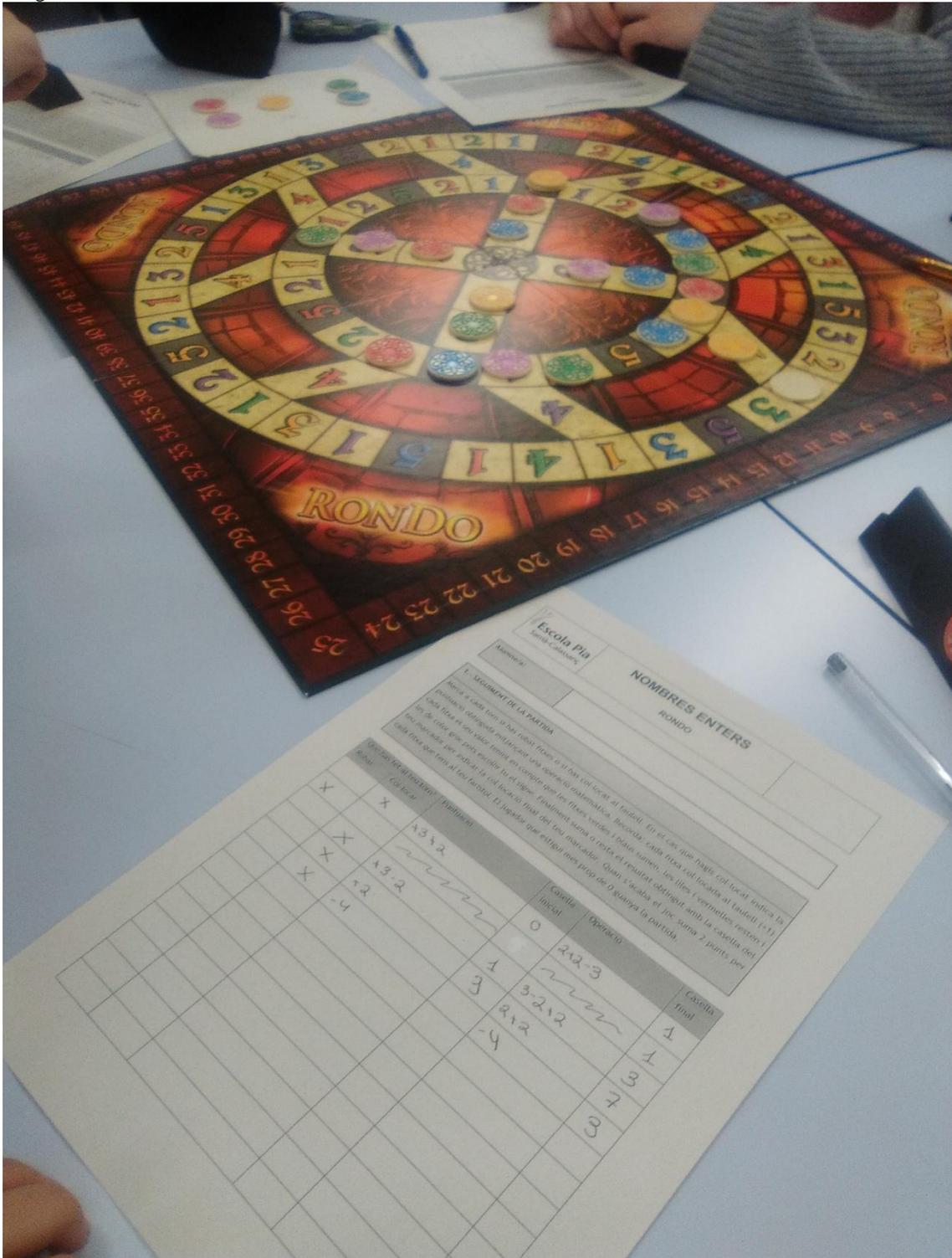
The second area in which games have a lot to say is in the always-forgotten area of statistics. Games are full of statistics, both those that are random and those that are not. All the combinations that we teach them, which are still a bunch of abstract concepts that are difficult to grasp, can be applied directly to almost any game. Setting up a situation in a game and having the students make decisions, calculate the probability of success of a move and then, while playing, being able to check whether this probability is fulfilled, is just one example of the possibilities offered by board games.

Apart from these two areas, board games can also have an application. It is the job of the teacher-player to look with a mathematical eye at all the games that pass through his or her hands. Sometimes they can come from unexpected places: for example, a good game of *Fauna* (Friedemann Friese, 2008), where pupils have to calculate the total length, weight and length of the tail of various animals, can be used to underpin lessons on unit changes in the 6th grade syllabus.

To conclude, the use of board games in a maths class is not easy, neither in fact nor in form. No game, as far as I know, will help us to divide polynomials or to calculate square roots. But all games involve some form of mathematics. When designing the activity, it is the teacher who has to take the mathematics out of the core of the game so that, by playing, the pupils learn it as if it were a game.

OSCAR OLIVER URIEL
MATHEMATICS PROFESSOR AT UPC.

Integers with Rondo (Reiner Knizia)



Traditional games in school

A traditional game is one whose origins have been lost in the mists of time; no one knows who invented it, a game that has been passed down from generation to generation. Traditional games are what help to shape our identity, what bring us together as a community, and what we share with our ancestors.

Traditional games are those that have been passed down among equals, one learns from another, the youngest mirror their elders, grandparents teach songs, words and games to the youngsters. Streets and squares were exemplary places for relating with others, and this was where most playful interaction took place. The homes of large families, or where several generations lived together, were also a place for learning games. In a natural way, children and adults interacted with each other, uncles and aunts with nieces and nephews, grandparents with grandchildren, etc.

But what happens when society has changed so much in such a short period of time in sociological terms?

What happens when streets and squares become inhospitable places for outdoor leisure and interaction? What happens when the size of families is reduced to just a very few members, who often have no time to play together? Where do people learn about games?

Schools have been taking up the slack and taking on tasks previously carried out within families, on the street, and in society in general. Many of these tasks have been delegated to schools, which have evolved from a place where people learned "their letters" to a place where content is becoming increasingly less important, and everything relational and competence-based is gaining in importance.

Should schools be responsible for passing on traditional games? Should a PE teacher take on the role of grandparent? Are school friends the substitutes for spontaneous groups that meet in the street? We can all draw their own conclusions here; what is undeniable, is that we do need to stop and take time to reflect on these things.

If schools have become the main place for learning about games and relationships with others, how can we teach traditional games?

When I used to work as a PE teacher, I had three starting points in my game repertoire: the games I learned outside school, the athletics sessions I did as a teenager and, above all, the street games I used to play. I used to have such a good time playing in the street that I refused to believe that those games had become irrelevant, that the games that children had enjoyed for thousands and thousands of years no longer made sense. I thought about it, and came to the conclusion that I should try to teach these games. They were fun of course, but certain changes had



occurred which meant that the transmission process was on the point of breaking down. But the question was how to do this without turning traditional games into just another school subject, how to make sure that children would perceive the content as being valuable? It was necessary to stick to the fundamental idea of a game: a free activity, for pleasure, in search of fun, carried out with certain obligatory and freely-accepted rules, and everything that Johan Huizinga says in his marvellous definition of *play*. How to make this definition compatible with what I wanted to do at school?

Traditional games have always been played in streets and squares. During those weeks, I managed to get the centre to let me do the games sessions in a square next to the school - a courageous move, as this was at the beginning of the 1990s. The children played in the place where they met up on leaving the school, a place they passed every day on their way home. I turned that square into a space for play. We interacted with the elderly people who were in the square or were simply passing by. The sense of freedom was almost tangible. I repeated the experience at other schools, and the result was always the same: a complete success, with the families and the neighbourhood bursting with enthusiasm.

There are many ways of working on traditional games at school, but there are certain things that you need to remember:

- Traditional games connect us with the past. It is important to explain the context and anecdotes that go with each game.
- We can get children to interact with the elderly people around them, grandparents who visit us and get us to play.
- Materials for traditional games are mostly based on reuse.
- We must not lose touch with that feeling of freedom and enjoyment.

Remember: traditional games - as they always have been, and as they always will be.

VÍCTOR BAROJA I BENLLIURE, MEMBER OF THE COMPANYIA DE JOCS L'ANÒNIMA AND CHAIR OF THE CATALAN FEDERATION OF TRADITIONAL GAMES AND SPORTS



Granota



Morra



Infantil

Supporting GBL: the Games Classroom (Aula de Jocs)

In 2017, the association *Laboratori de Jocs (Games Laboratory)* was set up with the aim of showing that board games can serve as an additional tool in the classroom, through what is known as *game-based learning (GBL)*. At that time, publishers such as Devir and Haba had begun to produce teaching materials for some of the games and to provide training to explain how to apply them in the classroom, but these were occasional, non-continuous activities.

Furthermore, one of the problems of GBL is that teaching staff do not always have access to a wide variety of games. Faced with this situation, *Laboratori de Jocs* went to the door of the Faculty of Education at the University of Barcelona (UB) and organised a training session on GBL for students studying for the degree in Primary Education with Manu Sánchez and Òscar Recio, references in this field. The great success of the project led to the arrival of a second, larger project, a totally innovative resource: the Games Classroom.

After a while, in March 2020, the Games Classroom began operating but, due to COVID-19, its activity has remained small-scale until today. In October 2021, the Classroom was officially opened and provided the Faculty of Education with a unique resource on a European scale.

What is the Games Classroom?

As its name suggests, it is a classroom located in the Faculty of Education of the UB with capacity for about sixty people, where board games are the protagonists. There is a collection of more than four hundred examples donated by publishers and private individuals, as well as those purchased by the Faculty itself and the *Laboratori de Jocs*. The Games Classroom is not a resource exclusive to the UB. It aims to open its doors to the whole city, so that it is accessible to anyone interested in board games and how to use them as an educational tool.

Goals

The Games Classroom has two main objectives: to revive the habit of playing games at an age when, in general, playing has ceased, and to highlight the educational potential of board games.

Based on these objectives, its operation has been defined in terms of four lines of action.

- **Recreation:** this is a free play area set up as a toy library for adults to discover and play new board games. The main beneficiaries are the students and staff of the Faculty of Education and, in the first instance, anyone who wants to come along. It should be pointed out that, at present, there are no public games libraries in Barcelona for young people or adults, which is why

spaces that existed in the city in the nineties, such as the Casa del Mig or l'Annex de Golferichs, are also being brought back.

- **Training sessions:** It trains future education professionals in the use of games as educational tools. As it is in the Faculty of Education, it allows for a direct relationship to be established between games and education and can be introduced in student training sessions. This makes it possible to learn about the use of board games in classrooms and to delve deeper into this subject. However, it is not limited to students of the Faculty, but is open to teachers and anyone interested in GBL. It should be said that, at another level, the classroom has already hosted the internships of three pedagogy students and the intention is to continue training professionals in this area and to link it to other internships on the Faculty's degree courses.
- **Resource centre:** it opens its collection of games for consultation and allows you to explore a unique repository of GBL proposals, the Catalogue of Playful Experiences, and, in the future, other materials of interest. Visits from trainees facilitate the creation of resources, such as proposals for the use of games in the classroom and others.
- And lastly, **research:** a meeting point for people interested in working and doing research in GBL and board games. The aim is to develop research projects in the field of games, offering the collection as study material, aimed at researchers, professionals and disseminators of the world of play.

The Games Classroom raises the profile and dignity of board games as cultural creations, socialisation tools and healthy alternative leisure activities, as well as allies in learning.

For more information about the Games Classroom or to visit it, please contact us via the following email address: aulajocs-educacio@ub.edu.

ÀLEX CARAMÉ AND DAVID SASTRE

Aula de Jocs



Games for the Social sciences

Theorising about the application of board games in social science classes is easy. Giving concrete examples of specific games is not quite so common, but this is what we will try to do starting from the dimensions into which social sciences are divided: the historical dimension, the geographical dimension, the cultural and artistic dimension and the civic dimension. We must bear in mind, however, that there are various aspects that will be very important when considering proposals for games based learning: the duration of the games, the number of participants, the contents that are linked to them, the difficulty of the game, the experience of playing, the reflections that we can draw from them, and so on.

Some examples of board games for working on learning linked to **the historical dimension** are:

- *Stone Age*, by Bernd Brunnhofer: is a resource management game set in prehistoric times.
- *Troia*, by Eloi Pujadas: is set in Homer's famous *Iliad*.
- *Carcassone*, by Klaus-Jürgen Wrede: is a strategy game that is linked to the Middle Ages.
- *Victus. Barcelona 1714*, by Toni Serradesanferm: is a game in which we can work on topics related to the Bourbons' siege that took place in 1714 in the city of Barcelona.
- *Timeline*, by Frédéric Henry: this is a small-format game, ideal for working on the chronology of historical events.
- *Twilight Struggle*, by Ananda Gupta and Jason Matthews: is a game that recreated the Cold War years (1945-1989).
- *Los inseparables (The Grizzled)*, by Fabien Riffaud and Juan Rodríguez: is a cooperative card game inspired by the First World War.
- *Scape*, by Pak Gallego: this hidden roles game is based on the film *The Great Escape* (Second World War).

In the **geographical dimension** we have games such as:

- *Nile DeLuxor*, by Daniel Callister and James Mathe: in this game, one assumes the role of a group of farmers whose prosperity and destiny depend on the river Nile.
- *Cyclades*, by Bruno Cathala and Ludovic Maublanc: this is a game in which the aim is to build two metropolis and where the geography of ancient Greece, mythology, the Greek army, the wars, etc. can be worked on.
- *Ticket to ride!*, by Alan R. Moon: a board game where you have to connect different cities with train carriages.
- *Terra Kids - The countries of the world*, by Markus Nikisch: this is a board game where you learn about flags, country capitals, etc.

Examples of games in the **cultural and artistic dimension** would be:

- *Cleopatra and the Society of Architects*, by Bruno Cathala and Ludovic Maublanc: this is a board game in which you have to build a three-dimensional palace with sphinxes, obelisks, etc., during the game.
- *The downfall of Pompeii*, by Klaus-Jürgen Wrede: is a game that is played in two stages, one before and one after the beginning of the eruption of Vesuvius and where you can work on topics related to the events that took place there and the constructions of the city.
- *DogFight. WWI*, by Martin Wallace: a very simple card game in which players play against each other with their planes. Here we can learn a lot about aviation in the First World War.
- *7 wonders*, by Antoine Bauza: this is a game in which you have to develop one of the seven greatest cities of antiquity and its civilisation.
- *Zoom in Barcelona*, by Núria Casellas, Eloi Pujadas and Joaquim Vilalta: this is a board game in which you take part in a photographic competition in the city of Barcelona and discover the architecture, the modernist buildings, and so on.

We can work on the skills of the **citizenship dimension** with games such as:

- *Senators*, by Haig Tahta and Rikki Tahta: this is a board game in which the players have to take on the task of leading a faction of the Roman Senate and seek the support of the other senators by means of corruption.
- *Secret Hitler*, by Max Temkin: in this game of hidden roles, among us, there will be liberals and fascists, as well as Hitler himself.

Some examples of the application of **role-playing** can be found in these games:

- *Contratiempos (Setbacks)*, by David Díaz: this is a role-playing game whose aim is to awaken an interest in history and everything that surrounds us.
- *7 días de travesía (7 days of travel)*, by Pepe Pedraz: this is a role-playing game in which a week-long journey full of adventures and emotions takes place.
- *Comrades*, by W. M. Akers: deals with life in the revolutionary underground.

Among **escape** and *breakout* games there are:

- *Hades's Rebellion*: is a proposal by Fernando Bolillos, who prepared this *breakoutgame* for his 5th grade students.
- *GTA (Geografía, Tablas y Aprendizaje) (GBL - Geography, Boards and Learning)*: a proposal from Natxo Maté that appears in Christian Negre and Salvador Carrión's book *Desafío en el aula (Challenge in the classroom)*. The aim is to work on more basic concepts of statistical geography.

With all these examples we can see the great potential of games in the study of social sciences.

MERITXELL NIETO SANTACREU
CLASSICAL PHILOLOGIST AND PSYCHOLOGIST

Scape (Pak Gallego)



Chariot Race (Matt Leacock)



Tales, myths and laboratory materials

Play can be part of the learning process at any point on the educational journey. But finding a game that suits your needs can be complicated. A good option is to identify games that can be modified and transformed, and then adapt them to your curricular content. The goal: for the mechanics of the game to become the vehicle for transmitting content.

The key considerations when choosing adaptable games are clear:

- Timing: the length of a game (including the explanation) has to fit in with the length of a class. If a game takes 30 minutes to explain, it's not going to work.
- Materials: if preparing the materials would be a lengthy process, the idea may well get shelved. Cards are the easiest things to produce.
- Replicability: can several games be in progress simultaneously, so that the whole class is participating? If the answer is yes, then that's the one!

One game that meets all the criteria is *Similo*, created by H. Hach, M. Chiacchiera and P. Zizzi, and published by Asmodée. This is a cooperative deduction game that involves discovering the identity of a well-known character, based on the association of ideas. What if, instead of people, they were test tubes and pipettes? It would be ideal for compulsory secondary education and baccalaureate pupils and upper vocational training laboratory students! The characteristics of the mechanics of the game would yield a number of benefits, both social and academic:

- Familiarising students with laboratory materials.
- Fostering interaction between students based on various criteria: functionality, complementarity or characteristics, and reinforcing similarities and differences.
- Consolidating vocabulary.
- Working as a team and cooperation.

Putting the idea into practice was easily achievable, it was a question of listing the materials needed, sourcing pictures and making, printing and laminating 30 cards.

The result was a resounding success: the quick games made the students hungry for more, and what they learned in one game was applied in the next. The repetition of concepts means that they are gradually assimilated by the pupils. Cooperation and constant discussion foster the exchange of ideas. And as if that were not enough, the shared challenge generates a feeling of belonging to a group.

IRENE SANCHO

SECONDARY SCHOOL AND VOCATIONAL TRAINING SCIENCE TEACHER.

Similo adapted



Students playing



Lingua latina ludens

Play can be an excellent ally in the classroom. The subject of Latin, in the 4th year of compulsory secondary education, provides a really interesting learning framework. This is an optional subject, conditioned by the pupil's subsequent baccalaureate choices, and the syllabus is not only limited to Latin grammar according to the BOE, but is open to cultural and historical content which can be approached in an entertaining way. So we can bring play into the classroom at various levels. A first level would be by using elements from a game, but without actually playing the game itself. For example, we could use the board and pieces from games such as *Julius Caesar* (Grant Dalgliesh and Justin Thompson), to present a map of Ancient Rome's territories. We can point out cities and regions, explain how their names have changed over time, and use the opportunity to touch on lexical and phonetic evolution. The board can also help pupils to build sentences of varying difficulty, from the most basic (*Brundisium in Italia est*) to slightly more advanced constructions: (*"Quot legiones sunt in Lugduno? Legiones sex in Lugduno sunt"*).

At a deeper level, play can become part of the learning process. Say the subject being studied is the destruction of Pompeii (the city gives a good idea of what the shops and streets of villae romanae were like, creating an opportunity to talk about everyday life in ancient Rome), playing *The Downfall of Pompeii* (Klaus-Jürgen Wrede), together with a close approximation of original city street plan with its gates, invites pupils to experience what happened in 79 AD in a way that is both entertaining and disturbing. Or if the focus of the class is end of the Empire, the tensions experienced in Rome in the face of the barbarian invasions can be better understood by playing *Pandemic: Fall of Rome* (Matt Leacock and Paolo Mori), or the upheavals within the government through *Donning the Purple* (Petter Schanke Olsen).

In this way, play becomes an excellent way of consolidating content and reflecting on what has been learnt, in preparation for a possible evaluation.

JOSEP OLIVER
@IMMACULUDICA

Pandemic: Fall of Rome (Matt Leacock and Paolo Mori)



The Downfall of Pompeii (Klaus-Jürgen Wrede)



The cold war at the Pau Vila Institute

Twilight Struggle at the center of an educational experience

"Shall we set up *Twilight* games for 90 students in the high school?" With this phrase, in the middle of a *Twilight* game with Jordi Ciprés, from JugarXJugar (Barcelona), the most satisfactory educational experience I have ever carried out began. The answer was that I was crazy, but that he was in.

Twilight Struggle (Ananda Gupta i Jason Matthews, 2005) moved me from the first game and I immediately thought about how to bring it to the classroom. The game confronts the USA and the former USSR for the domination of the countries during the cold war, with the nuclear danger, which can make you lose the game.

I tried it about ten years ago, with an exceptional group of class. On a strange day, I selected several volunteers for a difficult activity that was not going to get a grade. Raúl Herrero and I set up four simultaneous games with twenty students. When the janitor found out, he showed up with a three-foot photo of Che that was in a warehouse. Always be nice to the janitors!

Once the test was done, we transferred it to the entire 4th year of ESO level, with a project that, in the first year, included the purchase of fourteen copies of the game.

The activity begins with an introduction on the cold war by the teacher with the textbook and analyzing the movie *Dr Strangelove or: How I Learned to Stop Worrying and Love the Bomb*.

Other subjects dedicate a session with the cold war as a point of interest. Doping in the old GDR, the space race and the physical problems to reach the Moon, the theory of games and matrices, *duck and cover* and the literal translation, speeches of De Gaulle in French class, or the book *La nieta del señor Linh* in Spanish, are some examples.

The central day involves three hours of play, in groups of three for each side, with an hour of prior explanation.

At the end, several talks are given by experts on the game, such as "The cold war, with the movies and the *Twilight*", "An unscientific science", "Translation and games", "Create a strategy game" o "Graphic design". Finally, a Kahoot with a game as a prize.

At times there has even been a concert by the students, or they have come dressed for the occasion. The experience has also been transferred to other centres, such as the IES Numància at Santa Coloma.

The students have to submit a dossier with the works prior to the game and with the analysis of a card from the game. As a product they have to create their own letter. Thanks to Devir, we have the lay-outs of the cards.

I would like to share that there are students who are no longer in school and who have participated in the activity since the first time, every year, and who return to the centre to help us... ten years later!

DAVID MARTÍN

PROFESSOR INS PAU VILA.

2018 Activity



The Caravaggio Mystery. A Case in the Court of the Habsburgs

The social sciences are an area where play and gamification fit in extremely well. This conviction was the basis for designing the game "The Caravaggio Mystery. A Case in the Court of the Habsburgs", based on an adaptation of the game *Sherlock Holmes: Consulting Detective*, for 3rd year ESO secondary school students studying social science.

This game was part of a gamification process which asked students to locate Caravaggio's great works in the cities of Europe in the 17th century, such as Madrid under the Habsburgs. To do so, they had to ask various characters about where the works were hidden, and follow the clues they picked up.

The idea behind the game went hand in hand with curricular content: economy and society during the Habsburg period, specifically the period of Philip IV. I therefore made a list of the characters that the pupils would need to find and get to know, and who represented different aspects of the period: for example they'd have to meet a soldier in the Foreign Legion (to understand the decline of military power), chase around after rogues (to highlight the poverty of the underprivileged) and share a drink in a tavern with Lope de Vega, among other adventures. In order to play, the students had a notebook with all of the clues, as well as a map of the Madrid of that period. The 17th century was therefore presented as a game.

I organised the students into groups, with a "leader" in each one who would read out the clues and control the game, and who had already received their instructions. The game lasted for three sessions: the first was an explanation of the why and how of the game (competences and content) and we started playing, guided by the leader, who looked after the materials, read out the clues and took notes on the game. A second session was dedicated to playing the game, and once we had finished, we used part of the remaining time to comment on the outcome. Lastly, the third session consisted of an activity which enabled the students to use the knowledge they had acquired during the game. They had to place the characters they had spoken to in a social pyramid and describe in social and economic terms the Madrid they had visited.

As you see, this game has a lot of possibilities. Why not use the same game framework for the Catalonia of 1808? Or why not come up with other materials and shift the action to a laboratory? I leave you with a seed that I very much hope will take root and grow!

MARIA SABIOTE

SOCIAL SCIENCES TEACHER.

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Cover and rules (Maria Sabiote and Marcos Rebollo)

[INSTRUCCIONES]

- 1) Podéis salir de cualquiera de las 3 tabernas si sospecháis que el cuadro ha sido robado para el contrabando o de cualquiera de los 5 edificios oficiales si creéis que lo tiene un noble cortesano.
- 2) Por cada pista que os la lea el Master, tenéis que pagar 1 ducado. Si en la pista os piden más dinero, desembolsad.
- 3) Si llegáis a un callejón sin salida, volved hacia otra pista desbechada o empezad desde otra salida, pero en ningún caso podéis solicitar que os lean una pista sin una razón sólida para ello.
- 4) Este misterio también se puede resolver en solitario, siguiendo las mismas instrucciones dadas. La única diferencia es que el Máster sois vosotros mismos, por lo que deberéis leer las pistas sin haceros trampas.

4) Tras resolverlo, contesta a estas 3 preguntas:

1. ¿Quién tiene el cuadro?
2. ¿Cómo ha llegado a sus manos?
3. ¿Qué recorrido has realizado para llegar al cuadro?



EL MISTERIO CARAVAGGIO
[Un caso en la Corte de los Austrias]

EL MISTERIO



Libro de Pistas

3ESO - Historia moderna
mariasabiote.wix.com/clmisteriocaravaggio

Game Map (Maria Sabiote and Marcos Rebollo)

EL MISTERIO
Caravaggio

PLANO DE LA VILLA Y CORTE DE MADRID, EN TIEMPOS DE FELIPE IV -1621/1665-

PERSONAJES

- Alvarez, Ana -1NO-
- Bella, Fray Antonio -15SE-
- Calderón, María -14S-
- Cervantes, Miguel de -8N-
- Chirel, María -8N-
- Cottonetto, Baltasare -3SE-
- De Leyva, Juan -4NE-
- De Vega, Lope -3SE-
- Guzmán, Gaspar -10NE-
- Guzmán, Luisa -12SO-
- Jansen, Pieter -6NO-
- Jesucito -11SO-
- Ledesma, Pedro de -9S-
- Luna, Antonio -5NE-
- Maldonado, Brigida -20SE-
- Pablos -16SE-
- Pinto, Pepe -13SO-
- Ruiz Francisco -18SO-
- Quevedo, Francisco de -14SO-
- San Agustín, Mercedes -7NO-

EDIFICIOS RELIGIOSOS

- Ermita de S. Antonio -16NE-
- Capilla de S. Isidro -12SE-
- Iglesia de Nuestra Señora de Montserrat -4NO-
- Convento de S. Plácido -3NO-
- Convento de la Santísima Trinidad -15NO-

EDIFICIOS OFICIALES

- Real Alcázar -7NO-
- Palacio de Buen Retiro -15E-
- El Escorial -1NO-
- Casa de la Panadería -14SE-
- Real Hacienda de Castilla -12NE-

TABERNAS

- Taberna vieja -8NO-
- Taberna El Tercio -14SO-
- Taberna del Turco -15SO-

OTROS LUGARES

- Casa de 7 chimeneas -3SE-
- Fábrica de pólvora -5NE-
- Casa de Moneda -13SE-
- Zapatero -13SO-
- Palacio de la Casa de Lerma -3S-
- Colegio Real de Madrid -8N-
- Palacio del Ducado de Osuna -12NO-
- Mentidero de S. Felipe -8N-
- Hospital de Escoceses -3NE-
- Puerta de Lavapiés -19SE-
- Hospital de San Luis de



Games workshop with patacons

[*patacons*' used to be a traditional toy in Catalonia, used for playing games similar to milk caps or Pogs]

AIMS OF THE WORKSHOP

A detailed look at what *patacons* are, and their promotion as an element of a traditional game, and at the pleasures of playing traditional games in general.

Other associated aims:

- Solving personal challenges through individual projects.
- Communicative learning in order to interact with other playmates.

HISTORICAL INTRODUCTION TO PATACONS

Patacons are one of the most popular toys that our grandparent's generation used to play with in street games when they were children. And they were still popular with kids until well into the sixties - they could be used both as toys and as coins, and this made them a high value element in play. They were often used to gamble with, to win more while at the same time risking the loss of those that you already had.

BEFORE PLAYING, WE MAKE THE PATACONS

We start off by cutting a playing card into three horizontal pieces of equal size. Two of these pieces are then used for the *patac6*, with the third being kept back for later.

One piece is placed on top of the other to form a cross, then the front piece is folded backwards, with the piece at the back being folded forwards to make tabs. The tabs are then fitted together. Remember that the two sides of the *patac6* must be different in order to be able to distinguish the back from the front.

LET'S PLAY!

For the workshop we have chosen three games that we think are very typical.

1) **Picada**: in this game you have to try to put the *patac6* on the ground face up; this is called the *patac6 base*. In turn, each player hits this *patac6 base* with their own *patac6*. If you don't manage to flip it over, you have to leave your *patac6* on the ground.

When someone does manage to flip the *patac6 base* over, they win all the *patacons* that have been thrown down, except for the base cap.



2) **Pareteta**: each player leaves a *patacó* on the ground. Another is then placed touching the wall, and allowed to fall. If it falls on top of one of those on the ground, the thrower takes both the one they have thrown, and the one that they have hit. If it doesn't hit any of them, it's left where it is, and another player has a go.

3) **Flèndit de patacons**: A circle is drawn on the ground to throw the *patacons* into. From the distance you choose, each person throws a *patacó* to try to win the *patacons* previously "played" that have been left inside the circle. Each player keeps all the caps that they manage to get out of the circle.

ÒSCAR GARCIA PERTUSA

ASOCIACIÓN COMPANYIA DE JOCS L'ANÒNIMA

Patacón



Patacons



Catalogue of fun experiences

The Catalogue of Fun Experiences (CEL in Catalan) is a resource bank containing over two hundred learning experiences based on real games, that have been used by teachers in their own classrooms. This is a free, open and collaborative resource, aimed at professionals in the teaching sector who are interested in using board games as an educational tool. The platform makes it possible to filter by educational stage, subject area, skills, and abilities as well as by game, in this way enabling each individual to choose those that are most appropriate to their needs.

The Catalogue contains experiences like those presented below, classified by knowledge areas:

Linguistics

- In “Playing with coloured vowels” Rut explains how she has adapted the *Pippo* card game to work on vowels in primary education. [Link](#)
- To spark creativity in primary education, Luis uses *Carcassonne* in his young writer’s workshop. [Link](#)

Mathematics

- Maria Fernanda uses the game of skill *Jenga* to work on multiplication tables in a very original way with 4th year primary school students. [Link](#)
- Toni works on algebra with 1st and 2nd year secondary school students using the classic game *Uno*. [Link](#)

Science and Technology

- As a teacher, Manu introduces his students to the basic concepts of chemistry by using the game *Perfect Formula*. [Link](#)
- With 1st year secondary school students, Sílvia works on the classification of microorganisms with *Micro-Combat*. [Link](#)

Social sphere

- Víctor uses *Timeline* to work on contemporary history with 6th year primary school students. [Link](#)
- Meri uses *Battle Line* to explain the Greco-Persian Wars to 3rd year secondary



school students studying classical culture. [Link](#)

Art

- Based on *Monster Kit*, Laura works on visual arts and literacy with 4th year primary school students in her monster-creation workshop. [Link](#)
- Marta composes music with her 2nd year secondary school students, by adapting the dice game *Rory's Story Cube.s* [Link](#)

Physical Education

- On rainy days, when they can't go out to the playground, Òscar uses his own adaptation of *Happy Salmon* to work with primary school students on basic motor skills and emotions. [Link](#)
- For primary and secondary education, Miguel Ángel has created his own *Virus!* to work on healthy eating habits. [Link](#)

Extra game!

- Some experiences work for more than one subject area. One good example is *Horror on the Orient Express*, where Òscar adapts a legendary campaign from the role-playing game *Call of Cthulhu*, to work on English and social studies with 5th and 6th year primary school students. [Link](#)

ÀLEX CARAMÉ AND DAVID SASTRE
