

ONE SIZE FITS NONE: EMPOWERING PUPILS' UNIQUENESS WITH GAMIFICATION IN PRIMARY ENGLISH

UM TAMANHO ÚNICO NÃO SERVE A NINGUÉM: VALORIZAR A SINGULARIDADE DOS ALUNOS ATRAVÉS DA GAMIFICAÇÃO NO ENSINO DE INGLÊS NO 1.º CICLO

UNA TALLA NO SIRVE PARA TODOS: POTENCIAR LA SINGULARIDAD DE LOS ALUMNOS CON LA GAMIFICACIÓN EN LA ENSEÑANZA DEL INGLÉS EN PRIMARIA

Cláudio Santos¹ [0009-0006-5755-1569]

Mário Cruz² [0000-0001-8894-8821]

Fátima Faya Cerqueiro³ [0000-0001-5823-1934]

¹Universidade de Santiago de Compostela, Espanha, claudio.filipe@rai.usc.es

²inED, Escola Superior de Educação, Instituto Politécnico do Porto, Portugal, mariocruz@ese.ipp.pt

³Universidade de Santiago de Compostela, Espanha, fatima.faya@usc.es

Abstract

The current Portuguese education background reveals concerning issues which revolve around disengagement, disruptive socioemotional behaviours and insufficient classroom support for inclusion. Adopting innovative and inclusive pedagogical approaches to address these challenges is, therefore, crucial. Transform classrooms into inclusive and engaging environments, in order to unlock each pupil's potential and address their uniqueness across all lines of difference ensures essential fairness and equity in young pupils' English learning processes. Particularly, through the implementation of the Universal Design for Learning (UDL) principles, Primary English learning goes beyond a purely language structure approach, serving instead as a comprehensive tool to empower children as socially engaged citizens. Moreover, a Gamification Design Framework for Everyone provides multiple means of engagement, representation and action and expression which foster stimulating classrooms that reflect and respect learners' interests, backgrounds, and individual needs. This pilot study employs a predominantly qualitative and ethnographic methodology involving approximately 40 pupils attending curricular English in the 1st Cycle of Basic Education in a Portuguese public school. Data collection tools include field notes, critical reflections on lesson plans, pupils' work analysis, focus group and audiovisual recordings. Results suggest an increased student productivity, engagement and interest towards foreign language learning across various settings.

Keywords: Gamification, UDL, Transformative approaches, Primary English.

Resumo

O panorama atual da educação em Portugal revela preocupações relacionadas com o desinteresse dos alunos, comportamentos socio emocionais disruptivos e apoio insuficiente à inclusão. A adoção de abordagens pedagógicas inovadoras e inclusivas é, por isso, crucial. Transformar as salas de aula em ambientes inclusivos e motivadores, que valorizem a singularidade dos alunos em todas as linhas de diferença, assegura equidade e justiça nos processos de aprendizagem da língua inglesa. A implementação do Desenho Universal para a Aprendizagem (DUA), permite ultrapassar uma abordagem meramente estrutural da língua, capacitando as crianças como cidadãos socialmente

ativos. Ademais, o Modelo de Gamificação para Todos oferece múltiplos meios de envolvimento, representação e ação e expressão, promovendo salas de aula estimulantes que refletem e respeitam as necessidades dos alunos. Este estudo piloto adota uma metodologia predominantemente qualitativa e etnográfica e envolve aproximadamente 40 alunos a frequentar inglês no 1.º Ciclo do Ensino Básico, numa escola pública portuguesa. Os instrumentos de recolha de dados incluem notas de campo, reflexões críticas sobre os planos de aula, análise dos trabalhos dos alunos, grupo focal e gravações audiovisuais. Os resultados indicam um aumento da produtividade e do envolvimento dos alunos face à aprendizagem da língua estrangeira.

Palavras-chave: Gamificação, DUA, Abordagens transformadoras, inglês no 1.º Ciclo.

Resumen

El panorama actual de la educación en Portugal revela preocupaciones relacionadas con la falta de interés del alumnado, comportamientos socioemocionales disruptivos y un apoyo insuficiente a la inclusión. Por lo tanto, es fundamental adoptar enfoques pedagógicos innovadores e inclusivos. Transformar las aulas en entornos inclusivos y motivadores, que potencien la singularidad de los alumnos en todas sus diferencias, garantiza la equidad y justicia en los procesos de aprendizaje en inglés. La implementación del Diseño Universal para el Aprendizaje (DUA), permite superar un enfoque meramente estructural del idioma, capacitando el alumnado como ciudadanos socialmente activos. Además, un Marco de Diseño de Gamificación para Todos ofrece múltiples formas de implicación, representación, acción y expresión, promoviendo aulas estimulantes que reflejan y respetan las necesidades de los alumnos. Este estudio piloto adopta una metodología predominantemente cualitativa y etnográfica e involucra a aproximadamente 40 alumnos que cursan inglés en primaria, en una escuela pública portuguesa. Los instrumentos de recogida de datos incluyen notas de campo, reflexiones críticas sobre las programaciones didácticas, análisis de los trabajos del alumnado, grupo focal y grabaciones audiovisuales. Los resultados apuntan a un aumento de la productividad, la implicación y el interés hacia el aprendizaje de lenguas extranjeras en diversos contextos.

Palabras-clave: Gamificación, DUA, Enfoques transformadores, inglés en primaria.

INTRODUCTION

The utopian bridge between the Portuguese educational system and student success is becoming increasingly hollow within schools, particularly as these institutions continue to act as places of structural disadvantages for a considerable portion of their student population (Pereira et al., 2018). Lack of motivation, behavioural challenges, and socio-economic hardship are some of the main factors that significantly contribute towards the persistent issue of early school leaving – one of the most pressing concerns faced by public education in Portugal (Fialho, 2017).

Considering these complex educational realities of the current century, it is fundamental for both schools and educators to adopt pedagogical approaches which recognise and cultivate their learner's authentic skills, while fostering independent and critical thinking (Fernandes, 2019). Persisting in a superficial form of educational modernisation – one that continues to impose dominant school cultures and practices without truly bearing in mind pupils' cultural backgrounds, beliefs, learning profiles, and core motivations – only reinforces existing inequalities (Tomazetti & Schlickmann, 2016). Hence, to press forward, schools and teachers must challenge and overcome this entrenched logic of mass education and standardisation and cultural assimilation. Embracing more creative, inclusive and transformative methodologies will, thus, foster meaningful and quality learning for all, grounded in the uniqueness of each pupil (Fialho, 2017; Hersh, 2020).

Primary English is no exception to the aforementioned notions, especially considering the increasing cultural heterogeneity of today's classrooms. Teaching this foreign language at a primary level must, therefore, live up to the expectations of Portuguese public education as "a privileged place for the interaction of policies, cultures and practices so that the success of, for and with all students, respecting their diversity, can be a reality" (Alves et al., 2013, p. 123). Moreover, by bringing into the classroom "their own cultural and linguistic identities, young Primary English learners become active agents within their school setting, rather than passive content receivers" (Tomazetti & Schlickmann, 2016, p. 334).

Taking these notions into consideration, it is undeniable that Primary English teachers are called to respond to a democratic assignment: implement an inclusive educational design capable of broadening all learners' paths to

success instead of merely a few (Pereira et al., 2018). To achieve this goal, Primary English learning should not be limited to attaining flawless skills related to the foreign language domains of listening, reading, writing and speaking. Rather, it should support the development of wider skills that reflect the broader purposes of education (Cruz, 2019), such as cognitive, motivational and social competencies. Nevertheless, to accomplish these objectives, it is required the creation of equitable and inclusive classroom environments aligned with the principles of the Universal Design for Learning (UDL).

Indeed, the call for greater curricular flexibility becomes ever more urgent. Education must evolve to provide inclusive, adaptive and engaging learning experiences that are in tune with the rapidly shifting demands of the 21st century (Silva et al., 2022). Each learner follows a unique learning path and personal motivational core-drives which ultimately determine their success, so only by accepting that one size fits none and that uniform methods no longer serve pupil's real needs (Santos et al., 2024; Fernandes, 2019), can we begin to meet the complex aspiration and developmental desires of today's children (Chou, 2016).

This brings to light the vital need to redesign classrooms as transformative spaces which enable deep and purposeful learning (Cruz, 2019), guided by pedagogical approaches that respect the individuality of each pupil and nurture their capacity for autonomous thought (Fernandes, 2019), as we will further discuss.

1 LEARNING THAT FITS: THE UDL IN THE PRIMARY ENGLISH CLASSROOM

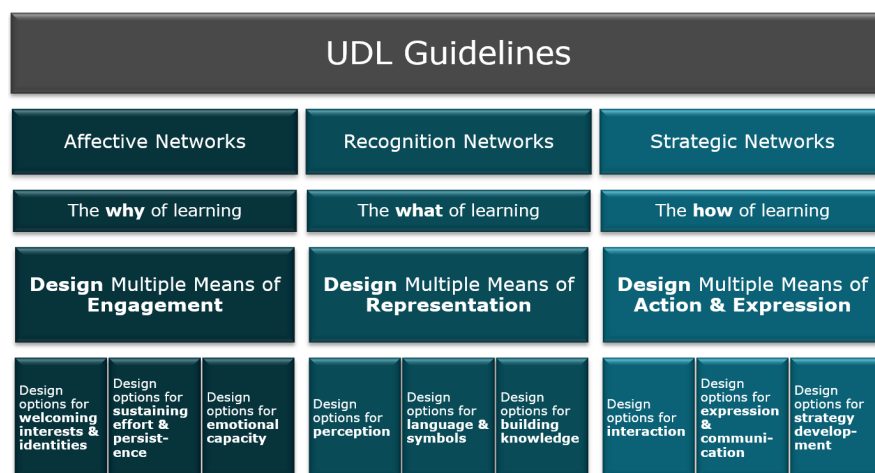
The Universal Design for Learning (UDL) is an approach based in a scientific framework which entails the twelve principles of brain-based learning in children, thus enabling the creation of engaging, tangible, stimulating and responsive learning environments (Alves et al., 2013; Machado & Alves, 2017).

The UDL addresses, therefore, the learner's cognitive potential by leveraging their brain's capacity to acquire knowledge (Alves et al., 2013; Machado & Alves, 2017). As such, designing and delivering lessons conforming to the UDL, will foster different paths towards success by enabling various forms of engagement, representation, and action and expression (CAST, 2024). For instance, role-play activities within English lessons offer Less outspoken pupils the opportunity to demonstrate their understanding through movement and performance (action and expression), while the use of visual resources (i.e. flashcards) caters to different learning profiles (representation) and simultaneously strengthen motivation and interest (engagement).

Indeed, the aforementioned ideas are strongly aligned to the core principles and guidelines (CAST, 2024) of the UDL (figure 1). It is, moreover, emphasized the importance of recognizing the "why", "what", and "how" of learning through a structured and research-based model for inclusive teaching rooted in neuroscience (Alves et al., 2013).

Figure 1

The UDL guidelines



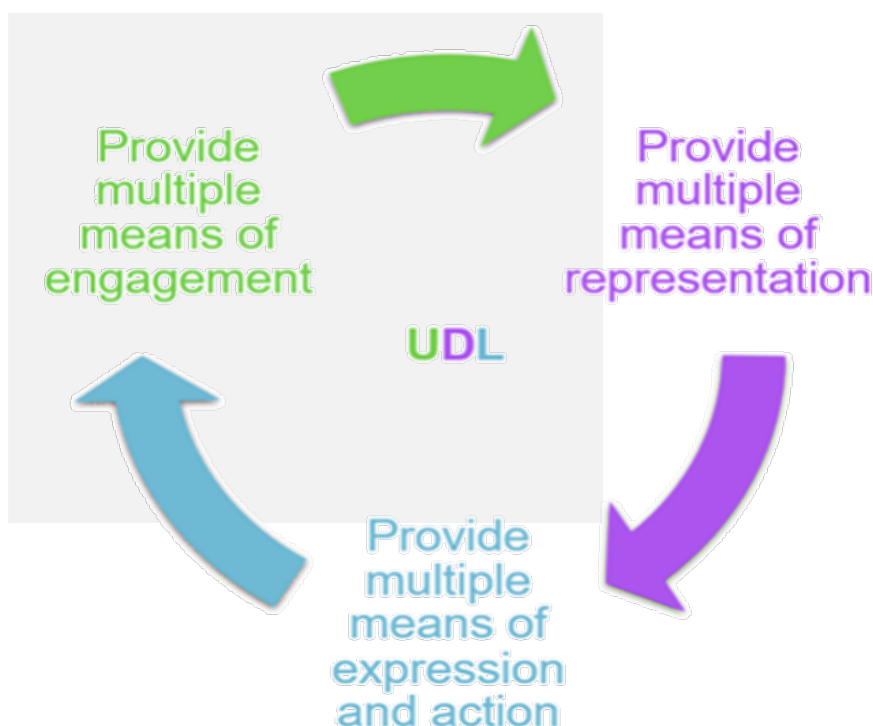
Note: Retrieved from Mohawk College (2019)

Through a closer analysis to figure 1, it is possible to understand that the “why” pertains to the affective neuronal network which is responsible for curiosity and motivation for learning. This neuronal network, therefore, aligns with the UDL principle of offering multiple ways to engage learners (Alves, 2018; Bonança et al., 2023). The “what” relates to the recognition neuronal network which highlights the importance of delivering information via diverse formats. This network is directly connected to the principle of providing multiple means of representation (Alves, 2018; Bonança et al., 2023). Meanwhile, the “how” refers to the various methods learners can use to demonstrate their knowledge and skills, thus reflecting the principle of allowing multiple means of actions and expression (Alves, 2018; Bonança et al., 2013).

In fact, “creating learning experiences that activate these three broad learning networks is a useful pursuit for educators as it works towards the goal of expert learning” (Mohawk College, 2019). So, the three UDL principles must not operate in isolation, but rather function together in a dynamic perspective (figure 2) towards a flexible and fundamental framework for teaching and learning within Primary English classrooms. Hence, it is our belief that by following these principles, teachers can better focus on “removing barriers to address individual needs and improve each student’s quality of life” (Bonança et al., 2023, p. 295).

Figure 2

The dynamic interaction between the UDL principles



Note: Adapted from Bonança et al. (2023).

Nevertheless, acquiring a second language often comes with a range of challenges, mainly concerning the four key language skills, such as listening, reading, writing and speaking (Ferreira, 2022). In order to manage these challenges, Primary English teachers should, then, resort to the flexible and inclusive nature of the UDL which will ultimately provide them with tools to (re)structure meaningful learning experiences for all (Bonança et al., 2023). By accomplishing this, it is expected that learners become able to apply their understanding and abilities in context by engaging in what Perrenoud describes as “knowledge in action” (2003 as cited in Pereira, 2010, p. 41). Taking this into account, we understand that Primary English classrooms must progress towards inclusive, adaptive, and pupil-centred environments where learners can “follow individual and diverse learning paths through varied means of engagement, representation, and expression” (Bonança et al., 2023, p. 297). Moreover, by respecting pupils’ individual

learning characteristics, teachers are also following the principles behind both the UDL and modern foreign language education (CAST, 2024; Ferreira, 2022).

It seems indeed to be unquestionable the growing necessity to adopt a liberating pedagogy in current Portuguese education (Freire & Shor, 2003). A pedagogy which supports the development of transversal skills, grounded in the learners' experiences, their intrinsic and extrinsic motivations, and aligned with their learning objectives. This approach to 21st century educational backgrounds should, in fact, foster curiosity and exploration across physical, digital and even imaginative settings, making use of a wide range of resources, didactics and methodologies (Pereira, 2010). It should as well recognise learners' uniqueness, fostering independent thinking, and addressing present-day learning demands (Fernandes, 2019). As Chou provocatively suggests, "imagine if there were a game so engaging that the more you played, the more productive you became" (2016, p. 10).

In light of this, the gamification pedagogy embraces the notions surrounding the abovementioned liberating and engaging pedagogy, since it not only introduces "game-based dynamics, aesthetics, and thought processes" (Nóbriga et al., 2015, p. 38) into our 21st century classrooms, but it also places the learner – hence, player – at the centre, respecting their learning outlines (Santos et al., 2024).

2 FROM ENGAGEMENT TO TRANSFORMATION: THE PEDAGOGICAL POWER OF GAMIFICATION IN PRIMARY ENGLISH TEACHING

Despite the gamification pedagogy (Chou, 2016) being recognised for its transformative potential in promoting immersive and intuitive learning experiences (Wulantari et al., 2023), it is also true that applying gamification in Primary English is far from straightforward.

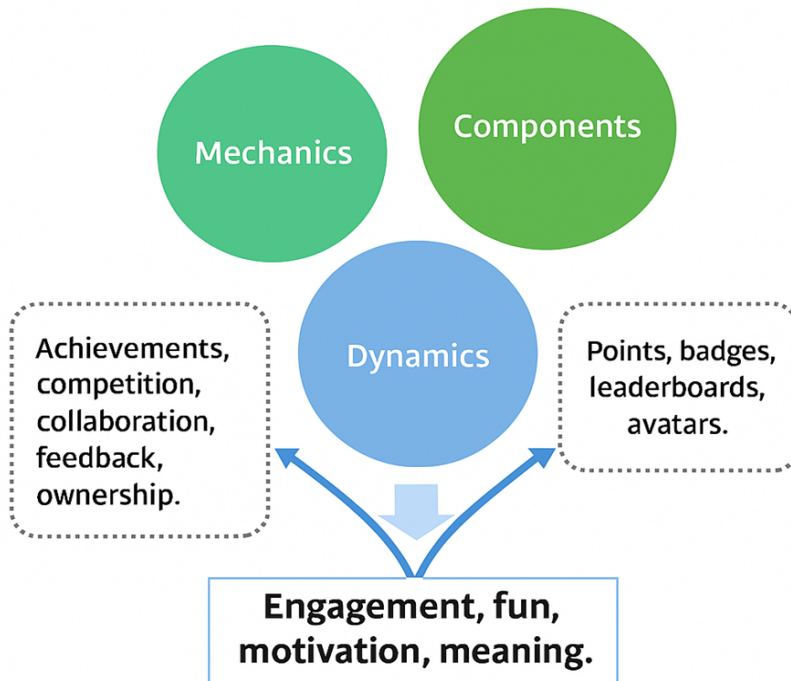
As Baptista (2005) states, it is imperative to invest in the conditions "that enable meaningful human encounters and the cultivation of high-quality interpersonal relationships" (p. 4). Hence, gamification should not be restricted to the mere application of game elements or the facilitation of playful moments, as preparing learners in linguistic competences requires meaningful and engaging pedagogical considerations. In other words, gamification within Primary English teaching environments should be oriented towards nurturing "emotional connections, directly linked to satisfaction and pleasure, which allow students to immerse themselves in a state capable of developing motivation and engagement through a relationship of belonging" (Fraga et al., 2022, p. 4).

In fact, when poorly conceptualised or executed, gamification may yield counterproductive outcomes throughout the teaching and learning process. In particular, if "encapsulates the concepts of game mechanisms and game rules, it requires clear and precise definition during design phase of implementation to specify the desired outcomes of the complete package" (Wood & Reiners (2015, p. 3044). Therefore, it is crucial to acknowledge its limitations, including the potential overreliance on extrinsic motivational strategies (i.e. Points, Badges and Leaderboards – PBL) and the risk of short-term engagement among young learners who may be less responsive to gamified or competitive dynamics (Santaella et al., 2018).

For these reasons, developing gamified learning environments in Primary English requires a pedagogical framework that purposefully integrates game elements (Fraga et al., 2022) with the intention to design cognitively and affectively engaging learning experiences. These experiences ought to "motivate pupils to answer to emerging challenges" (Cruz, 2019, p. 149) whilst supporting sustained involvement. Moreover, the main dimensions of the gamification pedagogy (figure 3) further empower teachers to foster pupils' motivation, engagement and commitment towards their own learning process, since the thoughtful deployment of game dynamics, mechanics and components, plays a fundamental role in actively stimulating both extrinsic and intrinsic motivations (Santos et al., 2024; Cruz, 2019).

Figure 3

Interplay of the main dimensions of gamification



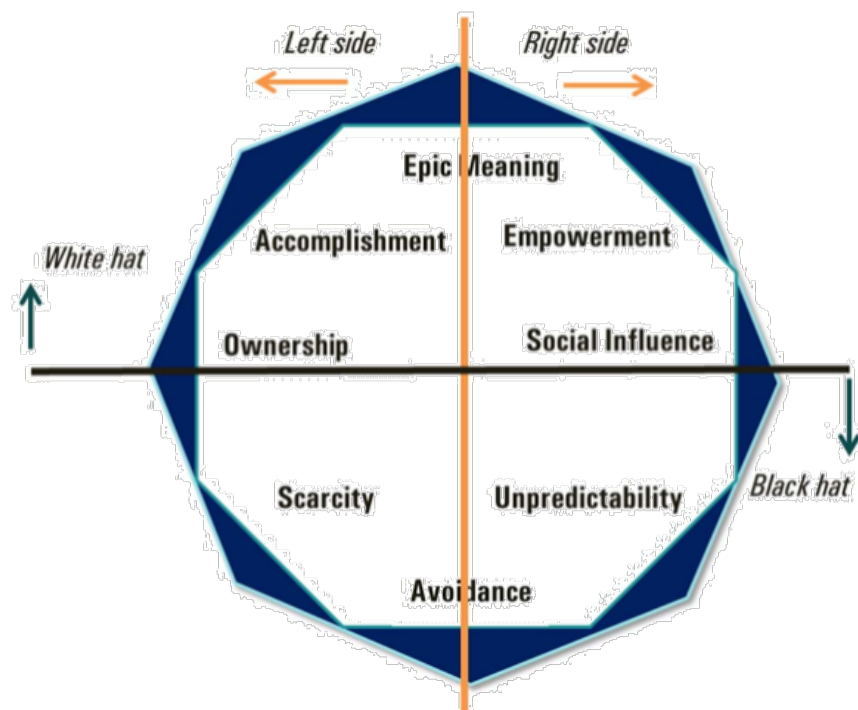
Note: Adapted from Wood & Reiners (2015); Cruz (2019).

It becomes increasingly clear that gamified pedagogical approaches use game-thinking and dynamics (figure 3) to enhance the learning experience through pupil engagement, enjoyment, intrinsic motivation, and active participation (Herrero et al., 2020). Moreover, these approaches depend on a careful and intentional alignment with the learner's profile (Wood & Reiners, 2015), which means that effective gamification in educational contexts requires teachers to understand and answer to the diverse motivational orientations and behavioral tendencies of their pupils. By putting these notions into practice, gamification can be transforming teaching and learning environments into active, engaging, competitive, challenging and rewarding places where pupil's individuality and the group's profile are taken into account, considering that each one will respond differently to diverse types of stimulation (Santos et al., 2024; Chou, 2016).

In light of this, it is also quite important to pay close attention to the types of actions pupils are intrinsically motivated to undertake (Chou, 2016). That is, if their desired actions are not adequately attended, pupils may fail to connect with the learning process, since their core motivational drives remain unaddressed. As highlighted by Chou, if they don't feel interested and their core-drives are not managed, then no substantive learning will occur (Chou, 2016). Therefore, in order to regulate these concerns, the Octalysis Framework (figure 4) offers a structured and comprehensive model through which teachers are capable of understanding and implementing its eight core motivational drives for more engaging and interesting lessons.

Figure 4

The Octalysis Framework and its core-drives



Note: Retrieved from Freitas et al. (2017).

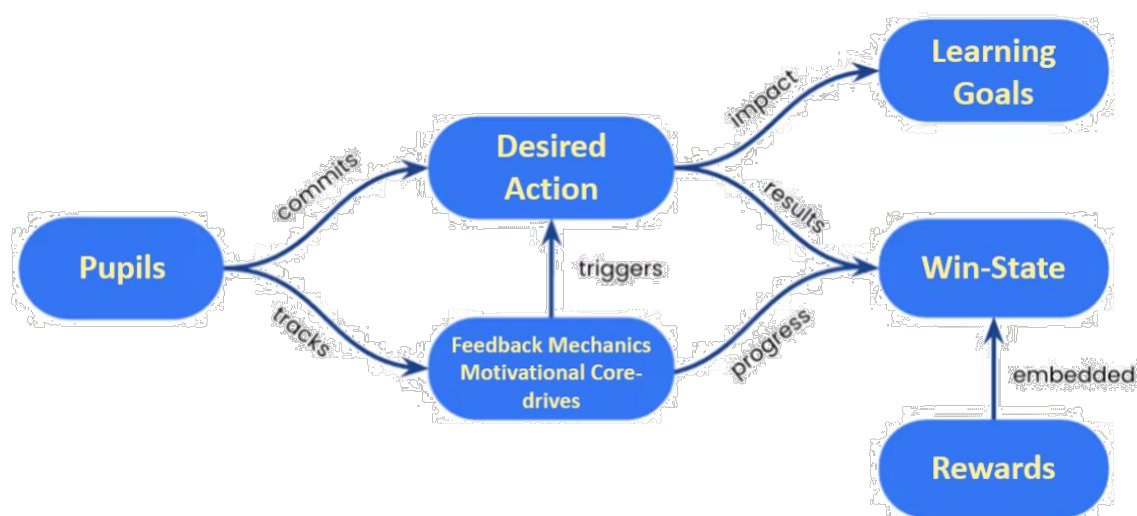
Within the Octalysis Framework there are eight core units of motivational impulses (core drives): i) Epic Meaning – the student feels part of something greater, with a special mission, and acts with an extrinsic sense of purpose; ii) Accomplishment – related to progress, achievements, and overcoming challenges, often signaled through points, badges and leaderboards; iii) Empowerment – the pupil is encouraged to experiment, create and solve problems, feeling like they are the author of their own success; iv) Ownership – pupils feel they possess something (statistics, reputation, a project, etc.), which motivates them to remain engaged in order to protect that which is already theirs whilst trying to acquire more possessions; v) Social Influence – students are motivated by social interaction and seek interpersonal relationships; vi) Scarcity – the urgency of obtaining something seemingly unattainable or accessing limited opportunities/rewards prompts the student to act so as not to miss out on what is rare; vii) Unpredictability – the uncertainty concerning what will happen next, generates a desire to continue working in order to discover the possible outcome; viii) Avoidance – the fear of losing something already gained or achieved or facing negative consequences, motivates pupils to maintain behavior appropriate to the setting (Santos et al., 2024).

Indeed, by aligning the Octalysis' core-drives with the main dimensions of gamification (figure 3), teachers can deliver more significant lessons, effectively capture pupil's interest, support long-term motivation and enhance learning outcomes. In other words, everything pupils do throughout their learning process and everything teachers plan and accomplish during the teaching course will and should be based on the Octalysis framework's core drives, since "when there are none of these 8 Core Drives behind a Desired Action, there is zero motivation and no action takes place" (Chou, 2016, p. 28). Additionally, by undertaking these pedagogical conceptions into practice, it will become possible to achieve learning goals through the fundamental aspects of our gamification campaign "by focusing attention on the critical elements that will ultimately direct efforts for maximum impact" (Chou, n.d.).

The Octalysis strategy dashboard (figure 5), for example, further displays the abovementioned notions as it shows how pupils commit to a desired-action and how they can trace their learning progress through feedback mechanics and their motivational core drives which, in turn, trigger said desired-actions (Chou, 2016).

Figure 5

The Octalysis strategy dashboard



Note: Adapted from Regalado et al. (2021).

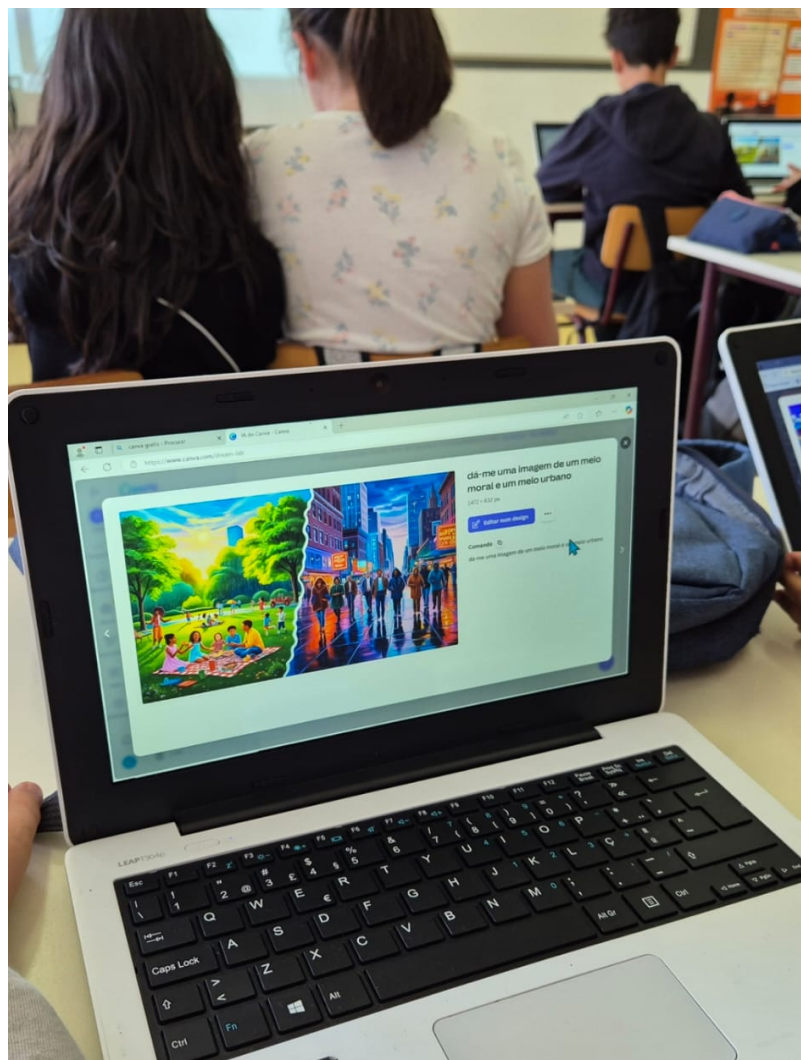
Subsequently, those feedback mechanics and core drives will foster progress towards a win state which, in basic terms, is when pupils feel hyped with their learning experience (Regalado et al., 2021; Chou, n.d.).

For instance, in one of our lesson plans related to the unit “City stopping & House popping!”, we developed an activity concerning urban and rural places. Within this activity we are able to identify some of the Octalysis’ core-drives (figure 4) and better understand the path drawn on the strategy dashboard (figure 5).

The activity entailed an initial group discussion where the teacher questions the students if they know what “urban” and “rural” means and if they know in which they currently live in. Then, pupils were asked to use Canva’s Artificial Intelligence (AI) tools to think about the similarities between and differences between urban and rural environments (figure 6), bearing in mind the answers they already gave during the class discussion.

Figure 6

Pupils using Canva AI

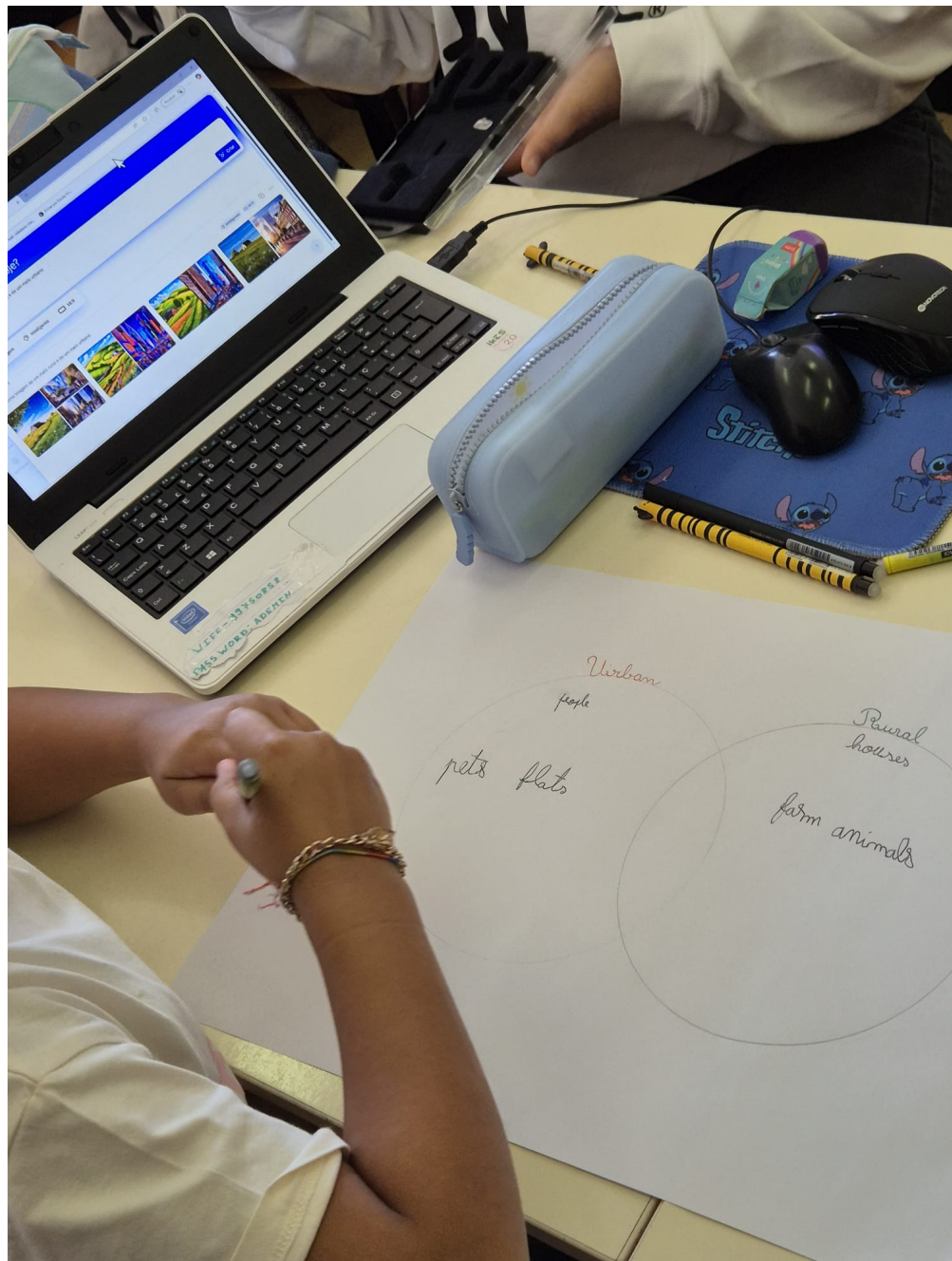


Afterwards, the teacher guides the research in order to spark another discussion to develop some vocabulary from Portuguese to English that might emerge from the pupils' answers (writing some on the board if necessary). During this time, the teacher receives a letter from one of the education assistants in order to spark curiosity among the pupils. The letter contains a message from a friend describing the city where he has now been living since moving abroad. Henceforth, the teacher builds up curiosity among the class.

Moreover, based on the previous conversation, pupils are challenged to work in groups to create a Venn Diagram (figure 7) which indicates the differences and similarities between urban and rural locations. The final work is shown to the entire class and displayed on the classroom walls, where pupils are invited to check when they feel the need.

Figure 7

Pupils creating a Venn Diagram



By the end of the lesson, the teacher tells the pupils that he is most curious about what the letter contains and opens the letter, sharing it with the pupils. He then explains that his friend is a former student of his that moved abroad with his parents and that he knows that the teacher enjoys a well written and heartfelt letter. The teacher tells his pupils that he would really like to also hear about them in the future, so he challenges them to learn how to write a letter. He hands the pupils a paper example of a letter and its structure and invites them to write their own letter talking about the place (e.g. city) where they live. They use their notebooks for the task. For pupils with specific learning needs

(mainly concerning writing and reading skills), the teacher hands them a letter already partially written where they can fill in the blanks with given words. These words were carefully written using a specific font and size on Word.

Taking this activity into account, it is possible to understand that the Octalysis' core-drives 1, 2, 3, 4, 5 and 7 were tackled. As to core-drive 1, Meaning & Calling, the lesson includes reflection about different types of living environments which relate to topics with intrinsic meaning for children, such as identity. Furthermore, by using the letter from a real person, the lesson gives a storytelling element which sets the context, thus adding a narrative purpose. In relation to core-drive 2, Development & Accomplishment, by completing the letter task and the AI-generated images on Canva, pupils feel a sense of achievement and keeps them immersed in their learning. Additionally, pupils' sense of accomplishment is also triggered through the display of their work on the classroom walls. In terms of core-drive 3, Empowerment & Feedback, the use of Canva's AI allows pupils to generate visual content which will allow them to engage in the Venn Diagram creation task, thus encouraging divergent thinking and problem solving. Concerning core-drive 4, Ownership & Possession, pupils build a sense of ownership by creating their own AI-generated images and personalized letters. Moreover, since the teacher uses ClassDojo, their digital or analog creations are shared on the platform for them and their parents to see, this reinforcing a feeling of possession over their learning outputs. With respect to core-drive 5, Social Influence & Relatedness, by collaborating on the Venn Diagram, pupils walk around the classroom to observe their peer's work, which ultimately fosters peer-to-peer appreciation and feedback. Last, but not least, core-drive 7, Unpredictability & Curiosity, the introduction of a mystery letter during the lesson creates narrative tension and surprise which engages pupils through novelty, exploration and a sense of interest for what comes next.

In view of this, it our belief that our pedagogical and didactic choices align with the principles of the UDL (CAST, 2024), particularly through the provision of multiple means of engagement (the intrinsic motivation sparked by the AI tools, collaborative work and individual exercise), multiple means of representation (AI-generated images, spotting the differences whilst using the mother-tongue to build understanding and the use of visuals and oral questioning), and multiple means of action and expression (possibility of using digital and analog resources and modelled examples). With regard to gamification, the Octalysis Framework core-drives (Chou, 2016) also contributed to more meaningful, inclusive and active learning.

3 SHAPING FUTURE-READY LEARNERS: CONNECTING THE SUBJECT, THE OBJECT, AND THE WORLD

Contemporary trends imply that digital tools will play an increasingly significant role towards the support of more inclusive learning environments (Alves et al., 2013), particularly within the 1st Cycle of Basic Education (1st CBE). These classrooms are predominantly composed of young learners who have grown up in a fully digital and interconnect world (Cruz & Díaz, 2016) – Generation Alpha.

For these reasons, and in order to meet the characteristics and needs of Generation Alpha, innovative pedagogical and didactic approaches must support the development of future-oriented skills projected for this generation's children. Moreover, these approaches become of greater importance in light of the fact that Generation Alpha is expected to also play a crucial role in guiding and mentoring the future Generation Beta, being the latter expected to inhabit a world where AI is integrated into everyday life (Leitão, 2025). Therefore, fostering an understanding that digital, gamified and inclusive approaches are essential to enhance learners' motivation, attention, self-esteem, and cognitive development (Chacón, 2021) is in order.

Following these notions, the incorporation of ClassDojo's digital platform into our Primary English practices proved to be fundamental towards inclusive and gamified environments which respected pupils' current interests, needs and realities. Furthermore, as ClassDojo allows immediate feedback, the recognition of individual progress and personalized forms of expression, it fosters a setting consistent not only with the UDL principle of providing multiple means of engagement (CAST, 2024), but also with the core-drive Accomplishment and Ownership (Chou, 2016). By this means, it contributes to a more engaging and responsive learning environment. In fact, the use of ClassDojo in our teaching space facilitated effective classroom management and enabled prompt responses to both immediate and post-lessons needs. It also allowed the design of tasks and challenges suitable for individual learning rhythms of each pupil (Chiarelli et al., 2015), whilst enabling the creation of personalized learning paths through which pupils could engage confidently. Consequently, pupils felt comfortable in their learning space, allowing them to develop skills in a differentiated manner (figure 8).

Figure 8

Giving an interview online



A closer analysis to figure 8, fosters our belief and understanding that the implementation of hypermedia resources (Cruz, 2019) promotes inclusive learning environments. For instance, pupils who normally feel insecure about speaking in public in a foreign language can do so online, thus making the learning process more comfortable, relatable and motivating. Moreover, it allows parents to take part in their children's learning and participate in their holistic development.

This hyperpedagogical feature of gamification thus seemed effective in "improving vocational, independence, and social skills" (Hersh, 2020, p. 11) and in allowing the (re)design of environments where pupils develop a future skills profile in accordance with the subject, the object and the world (Ehlers, 2020). In other words, the subject (self) dimension pertains to individual skills which sustain pupils' personal development, encompassing competencies such as self-reflection, self-awareness, self-organization, time management, motivation, metacognition, resilience and adaptability (Ehlers, 2020). As for the object dimension, it relates to skills related to problem-solving and critical thinking, innovation and creativity, subject-specific knowledge in a foreign language, among others (Ehlers, 2020). In contrast, the world dimension concerns individual skills within social and organizational settings, including leadership, responsibility, collaboration, networking and intercultural and diversity competencies (Ehlers, 2020). All these future skills interact mutually towards building a profile inherent to citizens who are capable of thinking and acting in complex *global* backgrounds (Santos et al., 2025).

It becomes, therefore, clear that teaching Primary English must go beyond language use in specific learning contexts. Although mastering specific language skills related to listening, reading, writing and speaking are important, teachers should also focus on actively preparing children for diverse and uncertain futures by providing them with the opportunity to develop ways of living, working and learning (UNESCO, 2022).

4 METHODOLOGY, RESULTS AND DISCUSSION

The main objective of our pilot study is to identify and assess how the gamification pedagogy may be implemented as an inclusive and transformative approach to Primary English teaching and learning environments, as well as its effect on student learning and development as active and socially aware individuals in 21st century society. A predominantly qualitative and ethnographic methodology was followed as it allowed us to explore and reflect upon classroom practices and pupils' behaviors in their natural environment. Moreover, this choice granted close observation, description and interpretation of classroom interactions which not only helped to examine the feasibility

of a larger, future study, but also contributed to “the planning and introduction of changes to that same practice” (Coutinho, 2009, p. 360).

Being this a pilot study, we are also in the process of method refinement and further quantitative data collection for clearer conclusions. Nevertheless, the practices described throughout this study took place through a period of one month in a Portuguese public school, comprehending 40 pupils (ages 9–10) learning curricular English in the 1st CBE (4th graders). Furthermore, lessons were held twice a week, with each one lasting sixty minutes. The group included twenty-three boys and seventeen girls, being six of them benefiting from learning support measures under the Portuguese Decree-Law No. 54/2018. The triangulation across the different data sources ensured credibility, interpretation was refined via peer debriefing and ethical procedures included informed consents from parents and pupils, anonymity of data, and compliance with the Portuguese Directorate-General for Education guidelines and school regulations.

Therefore, a thematic analysis of data was used to explore patterns of meaning that emerged in relation to student engagement, inclusion, and gamification (Braun & Clarke, 2012). Data collection tools include field notes, critical reflections of lesson plans, analysis of students’ works, focus group and audiovisual recordings of classroom interactions. The field notes allowed us to log observations during and after lessons, focusing on pupils’ interactions, engagement, language use, creative output and responses to gamified tasks. The lesson plans were crucial to capture our pedagogical intentions for each activity, as well as to critically reflect on needed adaptations and future changes. As for the analysis of students’ works and focus group, these enabled us to document learning outcomes and means of action and expression, as well as to gather pupils’ perceptions of their learning experiences, respectively. Finally, the audiovisual recordings captured group activities, class discussions, pupils’ responses to different exercises and gamified tasks and other classroom interactions, thus allowing for detailed analysis of given lessons and for the triangulation of data in order to “validate data collection instruments and meet the charge of subjective bias from single-methods or single-observer studies” (Griffie, 2012, p. 129).

Both observations and pupil outputs revealed learning outcomes featured by greater productivity, engagement, and enthusiasm towards the usage of the English language. Students were eager to attend English lessons and participate in gamified tasks involving digital tools and teamwork. Moreover, by micro-analyzing the audiovisual recordings, it became clear that pupils communicated more among each other to solve problems, actively collaborated with peers, and confirmed higher cognitive and behavioral autonomy. The analysis done to the pupils’ work also suggested that they were not only getting better at speaking and reading, but also at writing, being more concerned about their spelling and how to correctly write words. Those with learning support measures became more at ease with the use of English, especially in oral interactions with the teacher and their peers. These were particularly visible in small conversations (i.e. looking at a city map and telling where a place is in relation to another, using prepositions of place in context), simple fill-in the blanks exercises about a topic (i.e. writing the names of the different spaces in a house with the help of images) and post-activity assessments (i.e. digital or analogue quizzes), where 5 of 6 pupils with learning support measures (12,5%) were capable of solving exercises correctly.

Hence, their works also demonstrated the development of future skills related to collaboration, creativity and problem-solving. These outcomes were also validated by the focus group (eight children with different learning profiles participated), where pupils confirmed that they felt proud of their works and more empowered while accomplishing tasks. Additionally, the focus group proved that language use became an exercise of less boredom and less anxiety, since pupils described the lessons as a place where they could perceive their progress through the gamification elements, have a voice and feel free to share their ideas and concerns with the teacher and, therefore, experience a more active participation and development throughout their learning process. However, some challenges emerged, mainly due to a lack of adequate technological resources for carrying out certain activities, limited digital proficiency, digital literacy gaps among some families and frequent tendency among students to use their mother tongue whilst communicating on ClassDojo.

Bearing in mind these challenges, we firmly believe that the Portuguese education system, as well as the school practices embedded within it, must adopt more emancipatory pedagogies (Freire, 2004) in accordance with the specificities of each learner (Laal, 2011), thus diminishing the “structural obstacles that have continued to hinder a congruent relationship between school – as a space of cultural socialization – and the principles and values that illustrate life in an [...] inclusive society” (Pereira et al., 2018, p. 11). Hence, within this transformative and critical perspective on the teaching and learning of Primary English, both the gamification pedagogy and the UDL offer valuable free from fear teaching paths (Freire, 2004).

In fact, findings suggest that integrating the gamification pedagogy with the UDL principles into Primary English lessons, can enhance pupils' holistic development, mainly through motivation and engagement. This supports Chou's (2016) understanding that managing pupils' core-drives fosters continuous engagement and interest towards learning, as well as Almeqdad et al.'s (2023) analysis to the UDL effectiveness which emphasizes that providing multiple means of representation, engagement and action and expression improve inclusion and overall learning outcomes. Furthermore, the development of a future skills profile (Ehlers, 2020) in Primary English shows how the gamification pedagogy can go beyond language acquisition by encouraging essential skills which prepare children for uncertain and complex futures (UNESCO, 2022). Nevertheless, some of the challenges faced throughout our practices and during the implementation of our study emphasize some of the limitations and concerns linked to the gamification pedagogy (Santaella et al., 2018), especially when confronted with socio-economic disparities (i.e. digital literacy gaps and difficult access to technology). It is our belief that addressing these issues in the future will be fundamental to break down educational barriers and ensure greater inclusion and equitable learning paths.

Overall, the Primary English classroom must, indeed, be redesigned as a dynamic space for inclusion, creativity, and active citizenship where every child meaningfully and consciously participates in a volatile world (Santos et al., 2025). This pilot study, then, provides more empirical evidence towards inclusive and transformative pedagogies, highlighting the gamification pedagogy and the UDL as a bridge to meaningful learning in Primary English classrooms.

ACKNOWLEDGMENTS

This work is funded by National Funds through the FCT – Fundação para a Ciência e a Tecnologia, I.P., under the scope of the project UIDB/05198/2020 (Centre for Research and Innovation in Education, inED).

REFERENCES

- Almeqdad, Q., Alodat, A., Alquraan, M., Mohaidat, M. & Al-Makhzoomy, A. (2023). The effectiveness of universal design for learning: A systematic review of the literature and meta-analysis. *Cogent Education*, 10, 1-24. <https://doi.org/10.1080/2331186X.2023.2218191>
- Alves, M., Ribeiro, J., & Simões, F. (2013). Universal Design for Learning (UDL): Contributos para uma escola de todos. *Indagatio Didactica*, 5(4), 121-146. <https://www.researchgate.net/publication/276278393>
- Aubrey, K. and Riley, A. (2018). *Understanding and using educational theories*. SAGE Publications Ltd.
- Baptista, I. (2005). *Dar rosto ao futuro: a educação como compromisso ético*. Profedições.
- Bonança, R., Madureira, C. & Lima, L. (2023). O desenho universal para a aprendizagem: planear o ensino aprendizagem-avaliação para uma escola mais inclusiva. *Brazilian Journal of Education, Technology and Society*, 16 (2), 293-306. <http://dx.doi.org/10.14571/brajets.v16.n2.293-306>
- Braun, V. & Clarke, V. (2012). Thematic Analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds), *APA handbook of research methods in psychology, Vol. 2: Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 57-71). American Psychological Association.
- CAST. (2024). *Universal Design for Learning guidelines version 3.0*. <https://udlguidelines.cast.org>
- Chacón, J. (2021). Gamificación, Inclusión Educativa Y Brecha Digital. *Atas do V Congresso Internacional – Fenda Digital: Videojogos, a Ludificação e a Aprendizagem Baseada em Jogos*, 8-16.
- Chiarelli, M., Szabo, S. & Williams, S. (2015). *Using classdojo to help with classroom management during guided reading*. *Texas Journal of Literacy Education*, 3 (2), 81-88.
- Chou, Y.-K. (2016). *Actionable gamification: beyond points, badges and leaderboards*. Leanpub.
- Chou, Y.-K. (n.d.). *Gamification frameworks and models by Yu-kai Chou*. <https://yukaichou.com/frameworks/>
- Coutinho, C., Sousa, A., Dias, A., Bessa, F., Ferreira, M. J. & Viera, S. (2009). Investigação-acção: metodologia preferencial nas práticas educativas. *Psicologia, Educação e Cultura*, XIII (2), 355-379. <https://repositorium.sdum.uminho.pt/handle/1822/10148>

- Cruz, F. & Díaz, M. (2016). Teachers generation z and their digital skills. *Comunicar*, 46 (xxiv), 97-105. <http://dx.doi.org/10.3916/c46-2016-10>
- Cruz, M. (2019). Escaping from the traditional classroom: the 'escape room methodology' in the foreign languages classroom. *Babylonia*, 3, https://recipp.ipp.pt/bitstream/10400.22/15187/3/ART_M%c3%a1rioCruz_2019.pdf
- Ehlers, U. (2020). Future Skills – Future Learning and Future Higher Education. *Springer*. <https://nextskills.org/wp-content/uploads/2020/03/Future-Skills-The-Future-of-learning-andhighereducation.pdf>
- Fernandes, A. (2019). *Por que razão a escola, tal como a conhecemos, já não serve e é desigual?* https://comunidadeculturaearte.com/por-que-razao-a-escola-tal-como-a-conhecemos-ja-nao-serve-e-e-desigual/#google_vignette
- Ferreira, S. (2022). *As crianças da “Zona Cinzenta” e a aprendizagem de Inglês no 1º Ciclo do Ensino Básico* (Relatório de Mestrado). Escola Superior de Educação, Porto.
- Fialho, I. (2017). A organização da escola e a promoção do sucesso escolar. In J. Machado & J. M. Alves (Eds.), *Equidade e justiça em educação: Desafios da escola bem-sucedida com todos* (pp. 7-23). Universidade Católica Editora.
- Fraga V., Moreira, M. & Pereira, M. (2022). Uma proposta de gamificação do processo avaliativo no ensino de física em um curso de licenciatura. *Caderno Brasileiro de Ensino de Física*, 38 (1), 174-192.
- Freire, P. & Shor, I. (2003). *Medo e Ousadia – o cotidiano do professor* (10ª ed.). Paz e Terra.
- Freire, P. (2004). *Pedagogia do oprimido* (50ª ed.). Paz e Terra.
- Freitas, S. A. A., Lima, T. S., Canedo, E. D., & Costa, R. L. (2017). Gamification in education: A methodology to identify students' profile. *Proceedings of the IEEE Frontiers in Education Conference (FIE 2017)*. IEEE. <https://doi.org/10.1109/FIE.2017.8190499>
- Griffiee, D. (2012). *An introduction to second language research methods: Design and data*. M. Sokolik (Ed.). TESL-EJ Publications
- Herrero, M., Fontana, E., Muñoz, M., Malliora, M., Oneaga, C. & Pintilie, I. (2020). *Gamiright – The right gamification for tackling early school leaving and disadvantage*.
- Hersh, M. (2020). *Technology for inclusion*. UNESCO.
- Laal, M. (2011). Lifelong learning: What does it mean? *Procedia – Social and Behavioral Sciences*, 28, 470-474. https://www.researchgate.net/publication/224767020_Lifelong_Learning_What_does_it_Mean
- Leitão, J. (2025). *2025 é o berço da Geração Beta*. Expresso. <https://expresso.pt/expressinho/2025-01-15-2025-e-o-berco-da-geracao-beta-bf32bac7>
- Machado, J. & Alves, J. M. (2017). *Equidade e justiça em educação: Desafios da escola bem-sucedida com todos* (pp. 7-23). Universidade Católica Editora.
- Mohawk College (2019). *Universal Design for Learning*. <https://www.mohawkcollege.ca/centre-for-teaching-learning-innovation/teaching-effectively/universal-design-for-learning>
- Nóbriga, J., Araújo, L. & Barbosa, R. (2015). A gamificação como estratégia para a formação de professores para o uso do GGBOOK. In G. Santos & M. Létti (Orgs.), *Gamificação como estratégia educativa* (pp. 11-35). Universidade de Brasília.
- OECD (2022), *Education Policy Outlook 2022: Transforming Pathways for Lifelong Learners*, OECD Publishing, Paris, <https://doi.org/10.1787/c77c7a97-en>
- Pereira, F., Crespo, A., Trindade, A., Cosme, A., Croca, F., Breia, G., Azevedo, H., Fonseca, H., Micaelo, M., Reis, M., Saragoça, M., Carvalho, M. & Fernandes, R. (2018). *Para uma Educação Inclusiva: Manual de Apoio à Prática*. Ministério da Educação/Direção-Geral da Educação.
- Pereira, I. (2010). *O Ensino de Inglês no 1º Ciclo do Ensino Básico – Contextos e Processos de Integração Curricular*. Instituto de Educação, Universidade do Minho.

- Regalado, F., Silva, H., Machado, S., Costa, L., Veloso, A., Santos, C., & Mealha, O. (2021). "*Gamification for all*": *Planning and designing a community-oriented gamification strategy*. Game-On. https://www.researchgate.net/publication/355465893_GAMIFICATION_FOR_ALL_PLANNING_AND_DESIGNING_A_COMMUNITY-ORIENTED_GAMIFICATION_STRATEGY
- Santaella, L., Nesteriuk, S., & Fava, F. (2018). *Gamificação em debate*. Edgard Blücher Ltda. https://www.blucher.com.br/gamificacao-emdebate_9788521213154
- Santos, C., Cruz, M. & Cerqueiro, F. (2024). Managing pupil's core drives towards an e-inclusive and transformative primary english classroom. *Prática*, 7, (2), 8–20. <https://parc.ipp.pt/index.php/elearning/article/view/5813/3176>
- Santos, C., Cruz, M. & Cerqueiro, F. (2025). *MISSION: INCLUSION – UNLOCKING THE PRIMARY ENGLISH CLASSROOM THROUGH GAMIFICATION*, *EDULEARN25 Proceedings*, pp. 4086–4095. <https://library.iated.org/view/SANTOS2025MIS>
- Silva, A., Garcia-Docampo, L., Silva, S., & Lorenzo-Moledo, M. a del M. (2022). Retos de los centros educativos transfronterizos de Portugal y España a favor de las <<competencias para el siglo XXI>>. *Teoría de la Educación. Revista Interuniversitaria*, 34 (1), 167–187. <https://doi.org/10.14201/teri.25682>
- Tomazetti, E., & Schlickmann, V. (2016). School, secondary education and youth: The massification of a system and the pursuit of meaning. *Educação e Pesquisa*, 42(2), 331–342. <https://doi.org/10.1590/S1517-9702201606139017>
- UNESCO (2022). *Reimaginar nossos futuros juntos: um novo contrato social para a educação*. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000381115>
- Wood, L., & Reiners, T. (2015). Gamification. In M. Khosrow-Pour (Ed.), *Encyclopedia of Information Science and Technology* (pp. 3039–3047). Information Science Reference.
- Wulantari, N., Rachman, A., Sari, M., Uktolseja, L., & Rofi'i, A. (2023). The role of gamification in English language teaching: A literature review. *Journal on Education*, 6(1), 2847–2856.