

RETHINKING, RENEWING AND REDIGITALISING FOR TRANSFORMATIVE PRIMARY ENGLISH CLASSROOMS

REPENSAR, RENOVAR E REDIGITALIZAR PARA SALAS DE AULA
TRANSFORMATIVAS DE INGLÊS NO 1.º DO ENSINO BÁSICO

REPENSAR, RENOVAR Y REDIGITALIZAR PARA LAS AULAS DE INGLÉS DE
PRIMARIA TRANSFORMADORAS

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Abstract

The study presented in this article stems from teaching practices which are intended to contribute for the rethinking, renewing, and re-digitalising of the Primary English language learning in post-COVID-19 educational contexts.

To promote learning environments that lead to the creation of an interdependent and dynamic relationship between students and teacher, as well as to the development of future skills, one's work methodology was based on gamified and transformative practices.

For this study, two main objectives were aimed at: a) analyse several gamified and transformative didactic paths, in order to find out how these may allow students to develop future skills; b) identify practices and resources that allow teachers to betake digital tools to rethink and renew their "new normal" classroom and, henceforth, prepare students for the glocal challenges of the future.

An ethnographic and qualitative methodology was used, using data collection tools such as: a) field notes; b) content analysis from students' work and, c) audiovisual recordings.

The results seem to show that the above-mentioned practices promote the success and active learning of all students according to their individual profile.

Keywords: transformative teaching and learning, future skills, gamification, digital.

Resumo

Neste artigo evidencia-se um estudo com práticas de ensino que visam constituir possíveis contributos para repensar, renovar e redigitalizar a aprendizagem da língua inglesa, no 1.º Ciclo do Ensino Básico, em contextos educativos pós-COVID-19.

Com o intuito de promover ambientes de aprendizagem que levem à construção de uma relação interdependente e dinâmica entre alunos e professor, bem como ao desenvolvimento de *future skills*, foi desenvolvida uma metodologia de trabalho pautada por práticas gamificadas e transformativas.

Para este estudo foram almejados dois objetivos principais: a) analisar diversos percursos didáticos gamificados e transformativos para, assim, apurar como estes poderão permitir aos alunos desenvolver *future skills*; b) identificar práticas e recursos que permitam ao professor recorrer a ferramentas digitais para

repensar e renovar a sala de aula do “novo normal” e, desta forma, preparar os alunos para os desafios locais do futuro.

Foi utilizada uma metodologia etnográfica e qualitativa, recorrendo-se a instrumentos de recolha de dados, tais como: a) notas de campo; b) análise de conteúdo a partir de trabalhos desenvolvidos pelos alunos e, c) registos audiovisuais.

Os resultados parecem demonstrar que as práticas supramencionadas promovem o sucesso e uma aprendizagem ativa de todos os alunos em função do seu perfil.

Palavras-chave: ensino e aprendizagem transformativos, *future skills*, gamificação, digital

Resumen

El estudio que se presenta en este artículo parte de prácticas docentes que pretenden contribuir a repensar, renovar y redigitalizar el aprendizaje del idioma inglés en colegios y en contextos educativos post-COVID-19.

Para promover ambientes de aprendizaje que conduzcan a la construcción de una relación interdependiente y dinámica entre alumnos y docente, así como al desarrollo de futuras habilidades, la metodología de trabajo se basó en prácticas gamificadas y transformadoras.

Con este estudio tenemos dos objetivos principales: a) analizar varios caminos didácticos gamificados y transformadores, con el fin de averiguar cómo estos pueden permitir a los estudiantes desarrollar habilidades futuras; b) identificar prácticas y recursos que permitan a los docentes tomar herramientas digitales para repensar y renovar su aula de la “nueva normalidad” y, además, preparar a los estudiantes para los desafíos locales del futuro.

Se utilizó una metodología etnográfica y cualitativa, utilizando herramientas de recopilación de datos como: a) notas de campo; b) análisis de contenido del trabajo de los alumnos y, c) grabaciones audiovisuales.

Los resultados parecen mostrar que las prácticas mencionadas promueven el éxito y el aprendizaje activo de todos los estudiantes según su perfil individual.

Palabras-clave: enseñanza y aprendizaje transformador, habilidades futuras, gamificación, digital.

INTRODUCTION

Today's society has become tremendously digitalised to an extent where we can travel the world just by clicking some digital tool's button.

Contemplating on this idea, we understand that our society is deeply interconnected through prominent digital and multimedia technology (Cruz & Orange, 2016) which, inevitably, crosses over to educational contexts. Hence, we, as teachers, must realise that our pupils are children “who have grown up into a world surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other modern technological toys and tools” (Kivunja, 2014, p. 94).

However, even upon a society filled with these Digital Natives (Kivunja, 2014) the emergence of the COVID-19 pandemic came to show that teachers and pupils still lacked some essential digital and non-digital skills to handle the new challenges within the teaching and learning process.

Therefore, there was, and still is, a need to rethink, renew and re-digitalise our didactic paths and the way they are applied in the classroom, either on-site or online. One way to try and do this comes across the

concept of transformative teaching (Duckworth & Smith, 2018, pp. 4-5), which when implemented within the Gamification Pedagogy (Oliveira & Cruz, 2017) may nurture the necessary key-elements to develop future skills that “strive to raise awareness for local and global challenges” (Ehlers, 2020, p. 3).

Moreover, by promoting future skills into our pupil’s holistic development we are also fostering Key Competences for Lifelong Learning, such as the “digital competence” (Vuorikari et al., 2022, p. 3), leading to practices through which pupils “must be able to understand and respect the ideas, perspectives and values of others, and they must be able to deal with mistakes and regressions, while at the same time progressing with care, even against difficulties” (Ehlers, 2020, pp. 2-3).

Taking this into account, in this article we will explore the aforementioned concepts and intertwine them with our practices in the teaching and learning of Primary English.

1. RETHINKING, RENEWING AND RE-DIGITALISING LANGUAGE LEARNING: A RESPONSE TO THE COVID-19 PANDEMIC

According to Portugal’s National Education Council, the Covid-19 pandemic and consequent isolations due to the disease brought even bigger social inequalities worldwide, being Portugal no exception to this situation (Rodrigues et al., 2021, p. 33), and this had its impacts on Education as well.

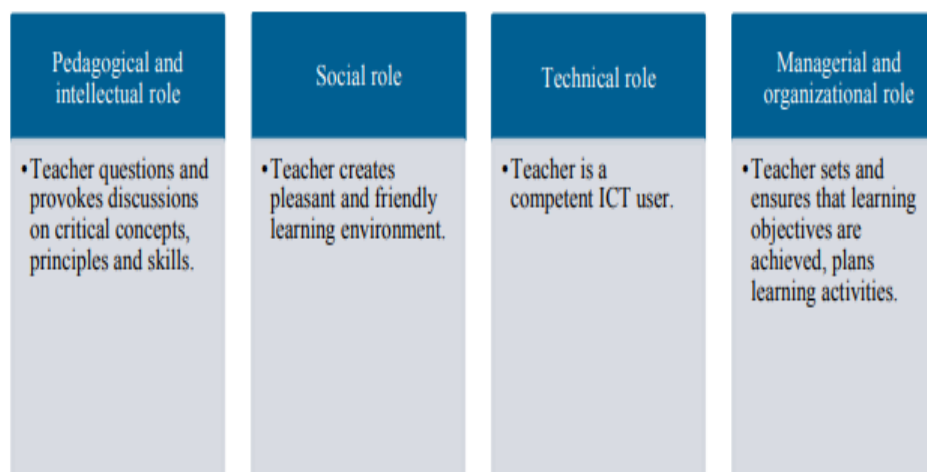
Some international bodies such as UNESCO, OECD and the European Commission have stated in further studies regarding the impacts of Covid-19 that the educational field was, and is, one of the most disturbed due to this global virus (Rodrigues et al., 2021, p. 34). Moreover, these studies acknowledged an increasing risk of school abandonment, deeper disparities pertaining to various educational contexts, negative alterations concerning social emotional development and mental health, as well as lesser financial support towards the area of Education.

Bearing these issues in mind, it seemed vital for a mind-shift regarding the way teaching should occur within the “new normal” paradigm. As 21st century teachers, and specifically as language teachers, we already were encouraged to use a variety of hands-on and experiential approaches to “increase students’ engagement and learning capacity” (Pusca & Northwood, 2016, p. 77). However, during the pandemic some of these more innovative strategies were difficult to maintain and to organise in such a glimpse of an eye. As a result, there appeared to be a certain retreat to more traditional approaches regarding language learning, but this time online (Har, 2022, p. 1; Klimova, 2021, p. 1788). Nonetheless, teachers were able to diversify their teaching methods and assessment practices (Conceição et al., 2021) which led to the rethinking, renewing, and re-digitalising of their on-site or online classroom(s), mainly because an enormous effort was needed to, in a post-Covid-19 scenario, “ensure that students a) return to school, b) catch-up on lost learning, and c) adapt to new circumstances” (Yorke et al., 2020, p. 7).

Furthermore, as Covid-19 came to stay, so did technology, which became of bigger importance since 2020 (Klimova, 2021, p. 1788). Hence, by reimagining the way we use technology in our teaching practices also became a high priority even in primary language teaching and learning contexts. According to Klimova (2021, p. 1788), “all these changes impose new challenging tasks on teachers who acquire four different roles in this process of online teaching”, as shown in the following figure:

Figure 1

Teacher's online teaching process



Note: Retrieved from Klimova (2021, p.1788) - <https://www.sciencedirect.com/science/article/pii/S1877050921016793>.

Therefore, being “digital skills for work and for life at the top of the European Policy Agenda” (Vuorikari et al., 2022, p. 2), it comes as essential to explore, in the next subchapter, DigComp 2.2 and its role within the Key Competences for Lifelong Learning.

2. DIGCOMP 2.2: THE DIGITAL IN LIFELONG LEARNING

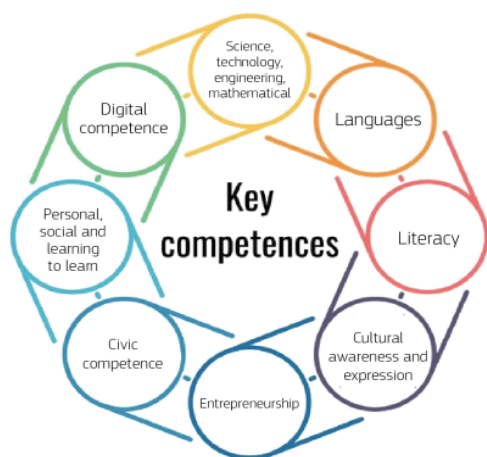
DigComp 2.2 refers to digital competence as being one of the Key Competences for Lifelong Learning (Vuorikari et al., 2022, p. 2). The concept was first coined in 2006 and later updated in 2018 by the Council Recommendation, being defined as a skill which “involves the confident, critical and responsible use of, and engagement with, digital technologies for learning, at work, and for participation in society” (Vuorikari et al., 2022, p. 2). This definition seems to be deeply intertwined with the notion of Lifelong Learning since this term reads as

a process of becoming aware of the frame of reference within which we think, feel, and act, becoming critical of its adequacy with conscious of where it comes, developing newer more adequate frames of reference which are more inclusive, and discriminating of experience [...] and finally acting out of this frame of reference (Laal, 2011, p. 471).

Consequently, the Key Competence Framework for Lifelong Learning (Figure 2) includes the digital competence as part of it and, at the same time, as interlinked with other skills.

Figure 2

Key Competences Framework for Lifelong Learning



Note: Retrieved from Vuorikari et al. (2022, p. 5) – DigComp 2.2: The Digital Competence Framework for Citizens.

Analysing DigComp 2.2. and the aforementioned Framework, there appears to be an unquestionable relation between these two and language learning. For example, on the one hand, the online teaching and learning of a foreign language “seems to be effective especially in developing reading, listening skills and vocabulary” (Klimova, 2021, 1788) as on the other hand, it is also possible “for pupils to develop and work their “handwriting freely on their mobile phones, tablets, or laptops” (Har, 2022, p. 2). For these reasons, we started using digital devices in our English classes (Figure 3), resorting to the ClassDojo online platform for creating a bigger connection between teacher, pupils, and parents, as well as providing a great way to control behavior within the classroom and building motivation.

Figure 3

Classdojo



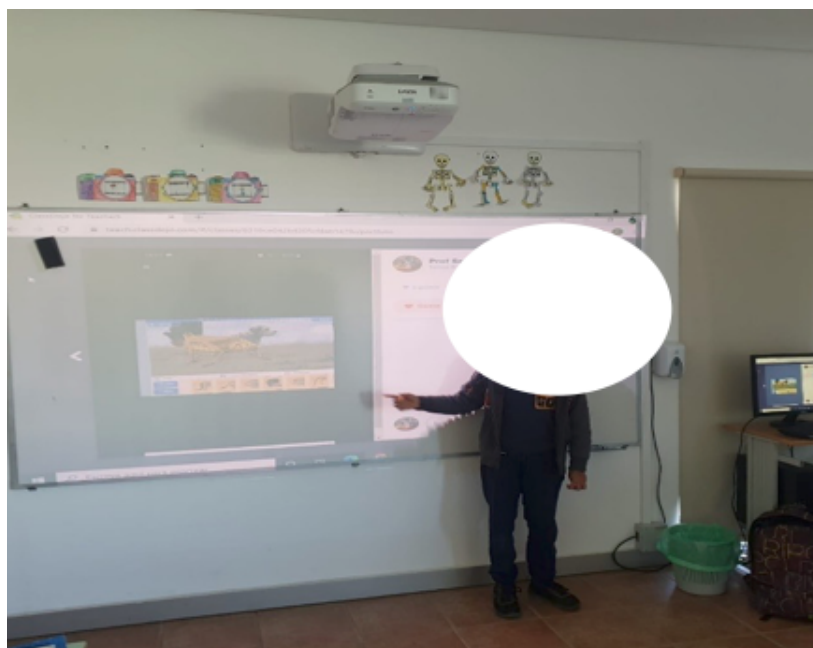
Note: Example of a pupil using the Classdojo platform to complete a task.

Therefore, we are able to foster the development of the main learning areas for the Primary English language according to *Aprendizagens Essenciais* (Direção-Geral da Educação, 2018), namely Listening Comprehension, Oral Interaction/Production (check Figure 4 for an example), Writing Interaction/Production and Intercultural and Strategic Competencies. However, in the same way, it comes as essential to promote the development of other skills that help pupils to interact, communicate and

collaborate using technological tools while conscious of their global context and diversity (Vuorikari et al., 2022, p. 6).

Figure 4

Pupil giving an oral presentation he prepared with a technological device using the ClassDojo digital platform



Note: Example of a practice carried out for this article's study.

Nevertheless, to try and apply this idea, we also strive for a gamified and transformative approach, within the Primary English Classroom, where “teaching and learning are not two distinct activities, but intertwined elements of a single, reciprocal process [...] perhaps they could be described as a double-sided, interactive process which transforms both tutor and learner” (Coffield, 2008, p. 8 as cited in Duckworth & Smith, 2018, p. 5).

In the next chapter we will focus on the future skills concept and why we should tackle it in our practices at school.

3. FUTURE SKILLS FOR AN HOLISTIC DEVELOPMENT

The concept of future skills is relatively new, and it appeared with the *NextSkills Project* in 2019 (Ehlers, 2020). Although most of the studies conducted are related to Higher Education, we feel that the core of this concept and the ideas presented, as well as the skills depicted in it, can start being developed in early ages, since primary level pupils are at the key moment of their socioemotional development (Carvalho, 2015). Moreover, as shown henceforth, our practices tend to give probable proof that these skills can indeed be fostered in young language learners.

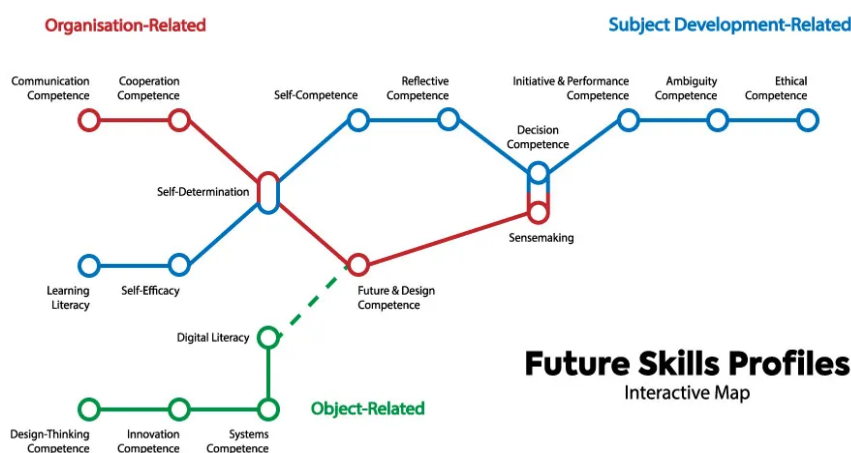
Ehlers (2020, p. 53) defines Future Skills as “competences that allow individuals to solve complex problems in highly emergent contexts of action in a self-organised way and enable them to act (successfully)”, as

“they are based on cognitive, motivational, volitional and social resources, are value-based and can be acquired in a learning process” (Ehlers, 2020, p. 53)

Following this conceptualization, Ehlers refers to three main dimensions (Figure 5) within *the future skills* development, where each dimension has further subskills, hence creating a *future skills profile*, which goes hand-to-hand with the idea that “the learning experience is central, feeding on one’s own interests and self-developed issues” (Ehlers, 2020, p. 53).

Figure 5

Future Skills Profiles map with the three main dimensions and corresponding subskills

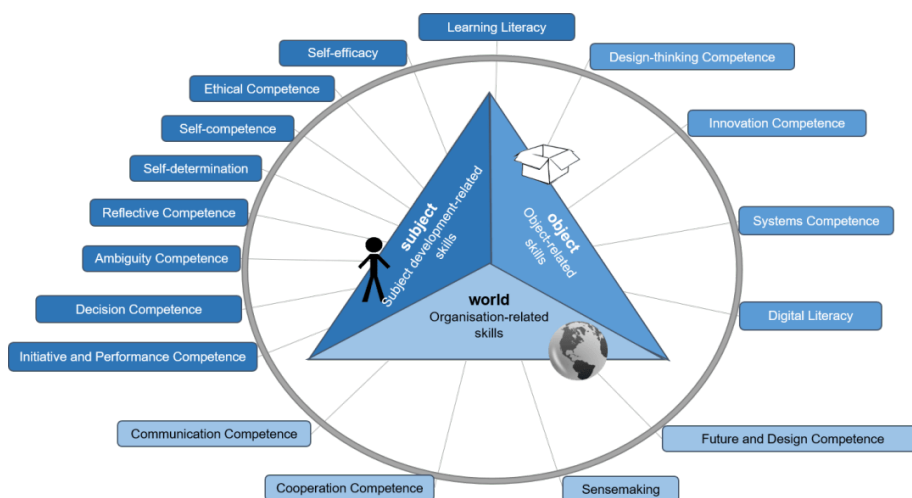


Note: Retrieved from the NextSkills website- <https://nextskills.org/future-skills-finder/>

To better comprehend each dimension and its relation to Education, Ehlers (2020) also provides the following framework:

Figure 6

Future Skills Profiles Framework



Note: Retrieved from the NextSkills website- <https://nextskills.org/future-skills-finder/>

Therefore, the first dimension relates to the pupil's subjective and own abilities to learn, adapt and develop in order to cope with future challenges (Ehlers, 2020). Furthermore, the second dimension concerns to the pupil's ability to act in a self-organized way in relation to a task or an issue he/she has to solve. As to the third dimension, this one emphasizes the pupil's ability to act self-organized in relation to its context (Ehlers, 2020).

Taking this into account, if teachers are able to link this Future Skills Framework to the *Perfil dos Alunos à Saída da Escolaridade Obrigatória* conceptual framework (Martins et al., 2017) and *Aprendizagens Essenciais* (Direção-Geral da Educação, 2018) while resorting to gamified (Chou, 2016) and transformative approaches (Duckworth & Smith, 2018), pupils will not only develop language skills, but also “knowledge and critical understanding of the world (including politics, law, human rights, culture, cultures, religions, history, media, economies, the environment and sustainability)” (Council of Europe, 2016, p. 52). Consequently, pupils can develop themselves in a holistic way through which they will be capable of shaping “a shared future built on the well-being of individuals, communities and the planet” (OECD, 2018, p. 3). The concepts of Gamification and Transformative Teaching and Learning will, therefore, be explored in the next chapter, in which we will also focus on our practical study.

4. GAMIFYING THE PRIMARY ENGLISH CLASSROOM TOWARDS A TRANSFORMATIVE APPROACH

The development of this study and the practices depicted in it occurred in a school of the Alentejo region, Portugal, with pupils from 3rd and 4th grades, learning the English language.

The study followed an ethnographic and qualitative methodology allowing “grounded understandings of phenomena constructed in and through the everyday actions and activity of people within particular settings” (Putney et al., 1999, p. 374). With this, we were able to study individuals and groups in their natural environments to create sensitive insights (Frey, 1994, p. 556).

Nonetheless, our methodological path aimed at two main objectives: a) analyse several gamified and transformative didactic paths, in order to find out how these may allow students to develop *future skills*; and b) identify practices and resources that allow teachers to betake digital tools to rethink and renew their “new normal” classroom and, henceforth, prepare students for the *glocal* challenges of the future.

To achieve this, we used data collection tools such as: a) field notes; b) content analysis from students' work and, c) audiovisual recordings interconnecting them with theory and practice to attain more feasible understandings (Erickson, 1986, p. 149).

Nowadays, more than ever, we live in a world with educational contexts of paradigmatic evolution (Lima & Cosme, 2018) where a need to implement gamified and transformative practices (Oliveira, 2017) in the classroom should be a must. Essentially, this may lead to the construction of an interdependent and dynamic relationship between students and teachers (Duckworth & Smith, 2018, p. 5), aiming at a didactic pathway through which our professional practices as teachers are enhanced and, in this way, give pupils the opportunity to develop themselves holistically within (trans)formative (Oliveira, 2017, p. 74) and experiential (Fernández-Corbacho, 2014, p. 1) environments, as the one we can observe in Figure 7.

Figure 7

Class dancing to a music about intercultural language differences



Note: The video of this practice was then published in the ClassDojo platform for parents to view in real-time

In line with the various concepts and frameworks related to the Gamification Pedagogy, the one followed throughout our practices was that of Yu-Kai Chou (2016) who revolutionised the understanding of gamification. The author defined the Octalysis Framework (Chou, 2016, p. 23) calling it “a Gamification Design Framework for Everyone”. Within this framework there are Eight Core-Drives that differ from each other regarding motivational aspects which may help us optimize our practices towards a Human-Focused Design, focusing on feelings, motivations, and engagement (Oliveira & Cruz, 2018, p. 68).

Moreover, considering that “in education, focus cannot lie solely on developing a superficial level of a game” (Oliveira & Cruz, 2018, p. 68), an approach to Gamification should not solely lie upon Points, Badges, and Leaderboards, as mentioned by Chou. These elements do have their place in gamifying the classroom, but the key is to engage pupils in a way that they view their participation as active, fun, competitive, challenging and rewarding (Chou, 2016, pp. 17-18). Hence, the idea is to make them feel a sense of empowerment throughout the learning process, appealing to the Core-Drives which tackle intrinsic and extrinsic motivations. For example, while learning the Unit related to “Animals” the pupils were challenged to create their own animal (Figure 8) using an online tool and then to participate in a volunteering activity to help animals from a local Animal Shelter (Figure 9).

Figure 8

Animal created by a pupil in the SwitchZoo online tool



Note: The work was then uploaded by the pupil to the ClassDojo platform.

Figure 9

Volunteering and Animal Shelter



Note: Pupils running with a dog from the animal shelter.

Furthermore, “as mobile technology has become more widely used in today’s classroom” (Har, 2022, p. 2), especially in a post-Covid-19 era, gamification tends to carry a more technological aspect to it, where one can create multi-device interactions in the classroom, seeing that “digital games are learning devices, and they can be an attractive addition to many classroom environments, allowing students to become even more motivated, engaged, and motivated to learn” (Har, 2022, p. 2). Following this concept, our pupils were often challenged to play games on various digital platforms to reinforce the skills and knowledge aimed for each class, as shown below:

Figure 10

Two pupils playing games on the WordWall digital platform



Note: <https://wordwall.net/pt>

By doing this we are supporting a 21st century transformative classroom (Oliveira, 2017, p. 82) through intertwining this understanding of the Gamification Pedagogy with the concept of Transformative Teaching and Learning. Following this notion, teachers may vacate a content-focused teaching by bearing in mind that their purpose goes beyond the simplistic delivery of information (Duckworth & Smith, 2018, p. 5). According to Duckworth and Smith (2018), through Transformative Teaching and Learning it is produced an interaction between teachers and pupils which leads to the idea of “dialogic care”, where the “care” embodied by the teacher gives way to a perception of mutual respect. Consequently, pupils feel oriented towards a sense of engagement and autonomy (Duckworth & Smith, 2018, p. 5). Thus, this tends to help in managing and motivating different classes either on-site or online, since both teachers and pupils participate, interact, and create bonds in active (digital or non-digital) learning activities (Figure 11).

Figure 11

Teacher and his pupils, from different classes, together in a Bilingual Storytelling activity



Note: Activity intended on building bonds and confidence to renew learning identities (Duckworth & Smith, 2018, pp. 5-6).

While putting the abovementioned notions into practice, it is, therefore, ultimately crucial to understand that in the 21st century educational environments, our pupils must be given the opportunity to develop future skills (Ehlers, 2020), which may prepare them not only for future jobs, but also for their active and conscious participation in the global challenges of the present and the future, as “in an era characterised by a new explosion of scientific knowledge and a growing array of complex societal problems, it is appropriate that curricula should continue to evolve, perhaps in radical ways” (OECD, 2018, p. 3).

FINAL CONSIDERATIONS

The core of this study related to the intention of reflecting upon some practices within Primary English teaching and learning contexts with regard to the capability of rethinking, renewing and re-digitalising the post-Covid-19 classroom through transformative approaches.

We consider that teaching in the “new normal” educational environments of the 21st century comes down to the creation of didact paths which may cater for a holistic development of our pupils either online or not. Indeed, throughout our practices we were able to observe that implementing a Gamification Pedagogy (Chou, 2016) and a Transformative Teaching and Learning Approach (Duckworth & Smith, 2018) foster future skills development and gives pupils the necessary empowerment to succeed, since both their extrinsic and intrinsic motivations are tackled (Santaella et al., 2018). Moreover, it was possible to observe that even the pupils with most difficulties in learning were able to develop a profile which was organisation-related, subject development related and object related as intended in the future skills profile map (Ehlers, 2020), giving gamification a multilevel framework seen as vital within a complex, digitalised and diverse society (Cachón, 2021, p. 14).

However, it is also our understanding that this study still needs further field reserach as well as a deeper exploration of its outlines to be able to reach more sustainable conclusions and results. For this reason, it is our intention to continue this research in the near future, confronting it with different practices, ideas and other publications. Moreover, during our practices we had some difficulties concerning technological activities, since great part of the region where the school is located has faulty mobile network and internet connection. In addition to this issue, a considerable amount of our pupils does not have the necessary digital equipment for some of the suggested activities due to financial issues or to their devices being broken. Even with the school providing these materials, we observed that a great number of pupils did not possess the basic digital skills to handle some devices, even them being digital natives (Kivunja, 2014, p. 94). For example, in a total of 74 students, 20 of them did not know to search for the ClassDojo platform in Google and within these 20, half of them did not know how to use their (digital) keyboard, thus intensifying a digital gap between pupils (Cachón, 2021).

Despite this, we also observed that the other pupils already had ease when using more technological tools which according to some of them, they learnt during the pandemic. In the same way, those who struggled initially, were able to quickly catch up, as the transformative and multilevel approaches given to gamification facilitated the growth of students (hence, citizens), who were much more productive and committed to finding creative answers to everyday problems (Esnaola, 2019, p. 22).

Nonetheless, the results seem to show that the above-mentioned practices go hand in hand with the diversity inside our classrooms (Cachón, 2021, p. 14), promoting the success and active learning of all students according to their individual profile. This emphasizes our belief that “education can make the difference as to whether people embrace the challenges they are confronted with or whether they are defeated by them” (OECD, 2018, p. 3). Our role as teachers from all different areas of knowledge will then

be to provide our pupils with the necessary skills to never be defeated by the complex and uncertain world they live in.

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REFERENCES

- Cachón, J. P. (2021). Fenda Digital: Videojogos, a Ludificação e a Aprendizagem Baseada em Jogos. *Gamificación, inclusión educativa y brecha digital* (pp. 8 – 14). <https://5e0f0c523e307.site123.me/>
- Carvalho, J. L. (2015). Cultura de colaboração versus cultura de substituição: breve reflexão em torno da integração de saberes no 1º CEB. *Profforma*, (17). http://cefopna.edu.pt/revista/revista_17/es_02_17.htm
- Chou, Y.-K. (2016). *Actionable gamification: beyond points, badges and leaderboards*. London: Leanpub.
- Conceição, D., Freitas, P., Lima, G., Nunes, L. & Reis, A. (2021). *Online teaching and learning in Portugal during the Covid-19 pandemic: Differences between public and private schools*. <https://observatoriosocial.fundacaolacaixa.pt/en/-/online-teaching-and-learning-in-portugal-during-the-covid-19-pandemic-differences-between-public-and-private-schools-1>
- Cruz, M. & Oliveira, S. (2018). The Gamification Octalysis Framework within the Primary English teaching process: the quest for a transformative classroom. *Revista Lusófona de Educação*, 41, 63-82. <https://revistas.ulusofona.pt/index.php/rleducacao/article/view/6490>
- Cruz, M., & Orange, E. (2016). 21st Century Skills in the Teaching of Foreign Languages at Primary and Secondary Schools. *Turkish Online Journal of Educational Technology, Special Issue for IETC, ITEC, IDEC, ITICAM 2016*, 1-12.
- Direção-Geral da Educação (2018). *Aprendizagens Essenciais de Inglês: 4.º ano - 1.º Ciclo do Ensino Básico*. https://www.dge.mec.pt/sites/default/files/Curriculo/Aprendizagens_Essenciais/1_ciclo/ingles_1c_4a_ff.pdf
- Duckworth, V. & Smith, R. (2018). Breaking the triple lock: further education and transformative teaching and learning. *Education & Training*, 60, (6), 529-543. <https://doi.org/10.1108/ET-05-2018-0111>
- 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-and-higher-education.pdf>
- Ehlers, U. (2020). *Future Skills Finder*. <https://nextskills.org/future-skills-finder/>
- Erickson, F. (1986). Qualitative methods in research on teaching. In M. Wittrockk (Ed.), *Handbook of research on teaching*, 119-161.
- Esnaola, G. A. (2019). Hacia el aprendizaje basado en juegos (Game based learning). *Videojuegos en aulas ludificadas* (pp. 19-24). Noveduc.
- Fernández-Corbacho, A. (2014). *Aprender una segunda língua desde un enfoque comunicativo experiencial*. Edinumen. http://www.academia.edu/12076149/Aprender_una_segunda_lengua_desde_un_enfoque_comunicativo_experiencial
- Frey, L. (1994). The naturalistic paradigm: Studying small groups in the postmodern era. *SAGE Social Science Collections*, 25, (4), 551-577.

- Har, F. (2022). English language learning in response to the COVID-19 pandemic: Hong Kong English as a Second Language students' perceptions of Badaboom! *Frontiers*.
<https://www.frontiersin.org/articles/10.3389/feduc.2022.966059/full>
- Kivunja, C. (2014). Theoretical Perspectives of How Digital Natives Learn. *International Journal of Higher Education*, 3 (1), 94-109. <https://files.eric.ed.gov/fulltext/EJ1067467.pdf>
- Klimova, B. (2021). An Insight into Online Foreign Language Learning and Teaching in the Era of COVID-19 Pandemic. *Procedia Computer Science*, 192, 1787–1794.
<file:///C:/Users/Aluno/Desktop/Doutoramento/Bibliografia/language%20learning%20and%20teaching%20covid%2019.pdf>
- 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
- OECD (2018). *The future of education and skills: education 2030*. OECD.
[https://www.oecd.org/education/2030/E2030_Pposition_Paper_\(05.04.2018\).pdf](https://www.oecd.org/education/2030/E2030_Pposition_Paper_(05.04.2018).pdf)
- Oliveira, S. (2017). *The UBUNTUfication of a 21st century transformative Primary English classroom* (Relatório de Mestrado). Escola Superior de Educação, Porto. <http://recipp.ipp.pt/handle/10400.22/10789>
- Pusca, D. & Northwood, D. (2016). Technology-based activities for transformative teaching and learning. *World Transactions on Engineering and Technology Education*, 14, (1), 77-82.
https://www.researchgate.net/publication/299583075_Technology-based_activities_for_transformative_teaching_and_learning
- Putney, L., Green, J., Dixon, C., & Kelly, G. (1999). Evolution of qualitative research methodology: Looking beyond defense to possibilities. *Reading Research Quarterly*, 34, (3), 368-377.
- Rodrigues, A., Canelas, A., Dias, A., Gregório, C., Gonçalves, C., Faria, E., Bertinetti, F., Miguéns, M., Félix, P., Perdigão R. & Lourenço, V. (2021). Efeitos da pandemia COVID-19 na educação: Desigualdades e medidas de equidade, Parte 1. https://www.cnedu.pt/content/noticias/estudos/Estudo_AssembleiaRepublica-Efeitos_da_pandemia_COVID-19.pdf
- Vuorikari, R., Kluzer, S., Punie, Y. (2022). DigComp 2.2 - The Digital Competence Framework for Citizens. <https://observatorio.incode2030.gov.pt/wp-content/uploads/2022/05/The-Digital-Competence-DigCom-2.2.pdf>