The Rights Hero - Serious Games for Human Rights Education and Integration of Migrant and Refugee Children in Europe

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Abstract

Following the rise of migrant inflows in Europe since 2015, more than 210,000 unaccompanied children have arrived in Europe. This article argues that serious games can in principle fill the gap of human rights education that these children face and ultimately help them develop, but important issues and challenges need to be considered. The article follows the design and development of "The Rights Hero", a prototype serious game for migrant children to help them learn and practice their rights, encouraging them to take transformative action that will lead them to integration. The game focuses on the 'Rights Hero' whose gender and race are unidentifiable and who is trying to build up two superpowers, "Resilience" and "Empowerment", through responding appropriately to various challenges. These challenges are all too familiar to migrant children. Designed an interdisciplinary team of human rights and game design experts, and in collaboration with the NGO Network for Children's Rights, work on the prototype raised important discussions regarding the use of games for human rights education, the need for children to know their rights, and their understanding of integration. The article reflects on the extent to which serious games can be developed as a useful informal educational tool for the human rights education of displaced children.

1 Introduction

This article discusses a serious game that depicts a "Rights Hero" who is gender and race-agnostic and who is building up the superpowers of "Resilience" and "Empowerment" along the gameplay, through responding appropriately to various game scenarios that reflect the everyday challenges of migrant and refugee children. Scenarios vary from the superhero's friend not being allowed to attend school because she is a girl; or a case of the playground being locked, and our superhero cannot play with their friends; to a case of facing aggression at home. Actions suggested include dealing with the issue aggressively, doing nothing, discussing the issue with adults etc. Appropriate answers that follow the Convention of the Rights of the Child (CRC) (United Nations, 1989) are rewarded by higher levels of the super-powers.

The lack of solidarity among European states in managing raised inflows of migrants to Europe since the start of the so-called crisis in 2015 and the flagrant disrespect of European states for migration law continues to be one of the most pressing issues facing the continent. According to the UN High Commissioner for Refugees, nearly 2 million refugees have arrived in Europe in the past five years, whereas in 2015 alone, 1.3 million people sought asylum in Europe (UNHCR Operations Portal, 2021). While the arrival of migrants has decreased in recent periods, there is still a troubling trend of disregard of these individuals' future by EU countries. The effect is staggering, first for the survival and development of the migrants themselves; and second for the social cohesion of European societies. Migrants, voluntary and not,[1] are often dehumanised, left without any information and knowledge of their rights, and their presence as the new 'Others' in

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[1] There is a lot of discussion in the literature regarding terminology. This piece adopts the term migrants to describe people who leave involuntarily from their home states. This includes involuntary migrants, asylum seekers and refugees.

Europe is used to raise fears, stroke populist sentiments and promote ethnocentric attitudes towards migrant communities.

In this context, migrant children are especially vulnerable. 'Save the Children' estimates that more than 210,000 unaccompanied children have arrived in Europe in the last 5 years (Save the Children, 2020). Migrant children living in the hotspots are in conditions that have been characterised by the European Court of Human Rights as degrading (J.R and others v. Greece, 2018). Their development is seriously affected by the lack of any routine and very limited educational incentives. They have no schedule or regimen to allow them to develop. Beyond the hotspots, unaccompanied migrant children face a high risk of violence and especially sexual exploitation or abuse (European Union Agency for Fundamental Rights, 2019). Without the protection of their families or guardians, they face all these difficult situations with limited understanding of the various elements of migration attitudes and knowledge of their rights. But even more generally, all children experiencing unvoluntary migration remain subject to rampant levels of discrimination and social marginalisation and at huge risk of violations of their various human rights (Save the Children, 2020), as laid down in the UN CRC.

This article is ultimately about migrant children and their learning of their human rights via the use of serious video games. In the digital age, video games are becoming a dominant pedagogical method for teaching, learning and training (Shaffer, Squire et al, 2005). Serious games specifically, can be described as purpose-driven playful environments designed to impact players beyond the self-contained aim of the game (Mitgutsch and Alvarado, 2012). It is argued that notwithstanding important challenges, serious games could fill a gap in human rights education and help children develop.

In order to prove the argument, the article first discusses the importance of human rights education and then explains the transformative pedagogy that human rights education can have especially for migrant children, as well as the importance of informal education for these children. In addition, the article discusses the dilemma we had on adding the teaching of elements of integration as the second aim of the game. The discussion turns to some examples of serious games as tools for human rights education, before focusing on the development of "The Rights Hero" as a means of empowering migrant children. We touch on the specific choices we had to make in order to serve our purpose, including choices on the language, the content and information, the mechanics of the game, fiction and narrative and finally the aesthetics and graphics chosen. The discussion highlights how the principles of human rights and gaming were infused in the game. The discussion turns to the evaluation of the game that was done with migrant and refugee children and an in-depth reflection of the challenges and shortcomings of the project. The outcomes offer insights in the design of serious games for human rights education and are discussed within the broader area of human rights education and integration.

2 Human Rights Education

2.1 Foundations

"The Rights Hero" is a digital game prototype, for children aged 12 to 18 years old, which can be played on a computer. It was designed by a team of researchers and experts from the Network for Children's Rights in Athens, Greece and developed by a team of game design students. Article 26 of the Universal Declaration of Human Rights states that 'education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms'. Both the UN Covenant on Economic, Social and

Cultural Rights and the UN CRC also recognise that education should develop respect for human rights and fundamental freedoms. In 2005, the UN World Programme for Human Rights Education was created to build 'a universal culture of human rights'. Currently, the programme is undergoing its fourth phase (2020-2024) which is focused on expanding Human Rights education for young children in formal and informal settings prioritizing the most marginalised.

We created "The Rights Hero" in order to contribute to the realisation of the right to education of these children, which includes the right to human rights education. Our work with NGOs working with migrant children and in particular the Network for Children's Rights convinced us of the importance of realising Human Rights Education (HRE) for these children, as a way to make them aware of their rights and to teach them and with their participation key values, such as respect, empathy and dignity of oneself (Reimers and Chung, 2010; Starkey, 2012). The effective development and integration of migrants though formal and informal learning environments remains a growing field of research, involving reflection on their universality within national legal and cultural forms some of which appear to be in conflict with the established human rights framework (Tibbitts and Fernekes, 2010). Teaching children of their rights encourages and empowers them to demand they be upheld by authorities in their host communities. Not only does this help prevent human rights abuses, but it contributes to creating an environment where social inclusion is possible.

There is in general a gap in the knowledge and the use of the CRC by children as (Watkins, Law, *et al.*, 2008) have discussed. Similarly, there is certainly a gap in migrant children's human rights education. The Council of Europe has explicitly stressed that when it comes to migrant and refugee children, 'access to information has repeatedly been found to be inadequate, with the

consequence that children and teenagers cannot access their rights or understand the procedures affecting them' (Council of Europe, 2018).

The transformative element we found in the literature of human rights education and its limited use so far (Struthers, 2016) was what drove us to create "The Rights Hero". The UN Declaration on Human Rights Education and Training (2011) highlights three key dimensions of HRE: education about human rights (providing an understanding of human rights principles and values as well as their specific scope); education through human rights (ensuring the way HRE is taught aligns with the principles of human rights); and education for human rights (empowering participants so that they can exercise their own human rights and promote the rights of others). The last category is especially important for migrant children. One powerful delivery method is open discussions whereby learners have the opportunity to discuss their rights, and any violations thereof reflecting on personal experience. These are then linked with the wider societal challenges. Tibbitts (2018) emphasizes the importance of the narrative that begins with the personal, stating that the internationally agreed principles ultimately need to resonate with personal struggle so that it enhances the understanding and embodiment of the concept of human rights, and the ability to recognise when these are violated. Understanding of violations motivates those affected to act against them, in what can be seen as a small-scale social change. There is a strong transformative element in this process that is essential for the learners and particularly for those who belong to vulnerable groups, such as migrant and refugee children. Tibbets writes that:

> The transformative approach recognises that the process of human rights education is intended to be one that provides skills, knowledge, and motivation for individuals to

transform their own lives and realities. This kind of pedagogy is experiential, problem-posing, participative, analytical, healing and strategic. (Tibbits, 2010, p.69)

Tibbitts transformational model is aimed at empowering individuals, promoting social change, and is often used for participants who have personal experience on human rights abuses such as refugees (Devonald, Jones et al, 2021). It is this transformative methodology that "The Rights Hero" was developed around. In essence, transformative pedagogy is a critical pedagogical approach that includes but is not limited to empowerment approaches. It motivates learners to reflect on their situation and understand the inequalities and the challenges these impose to their daily life. It instils a sense of action, thus linking the learning process with social change and human rights activism. In transformative pedagogy therefore, learning goes beyond the mind and connects with heart and action, to transform the learner's attitudes (UNESCO, 2017).

Although transformative pedagogy can be delivered in all educational settings, For this project, we felt it was really important to go beyond formal education. Statistics show that many migrant children of school age do not attend school. For example, only 42% of the migrant children in school age (13,000 from 31,000) actually attend school in Greece (UNICEF, 2020a). In several European states, various bottlenecks in formal education 'undermine the likelihood [of these children] to build successful paths of autonomy in their transition to adulthood' (UNICEF, 2020b). Also, formal education settings, where they exist, have been proven to provide limited teaching of human rights.

Migrant and refugee children often face significant barriers with respect to their formal education, including pervasive discrimination and other bureaucratic and administrative problems. Therefore, informal means of learning could become a more successful approach that we sought

to further explore within this context. Informal education can be seen as education outside the formal settings and without any planned stages of learning, in other words, learning that happens in daily life through activities and interactions within the surrounding social environments. Informal education of migrants is mainly promoted in Europe at the moment through the work of non-governmental organisations (NGOs) and community groups, and training of professionals such as teachers, social workers, and psychologists.

Specifically on games and informal learning research, the distinction between formal and informal usually relates to the context in which learning takes place (Iacovides, McAndrew et al, 2014). In "The Rights Hero", learning is considered informal as it occurs autonomously and casually and is not tied to a highly directive curriculum or instruction (Vavoula, 2004). Having decided to adopt such an approach, we found in the NGO 'Network for Children's Rights', our ideal partner: their work is very much based on such informal education and information approaches; and our research team witnessed repeatedly the positive impact that such education is having on migrant children (Council of Europe, 2018). As part of our sister programme, the Brunel Athens Refugee Project, where Brunel Law students work with refugee organisations in Athens, we have experienced how the Network uses various elements of informal education successfully to create strong links and ultimately educate migrant and refugee children. One of the challenges we thought we would face was gathering children that would test the game, as the participation of children in informal settings is rather hit and miss. Especially migrant and refugee children have sometimes irregular schedules -even their presence in the country can change suddenly- so we could not be sure about the continuous interaction with the same children, especially since participation was informal and we did not want to emphasise the pedagogical element of the project too much, as it was important to maintain the fun element, as discussed later. Integration

In addition to human rights education, our serious game also focused on elements of integration for migrant children. We were originally rather reluctant to add this element to the game. There is no universally accepted definition of integration in the context of migrants and refugees; the concept is 'individualized, contested and contextual' (Robinson, 1998). Hence, although it has become a major policy objective and a matter of significant importance in the political landscape in Europe, the concept is used in a varied -and not always constructive- way. The European Commission created an 'Action Plan on the Integration of Third Country Nationals' shortly after the beginning of the migration crisis (European Commision, 2020) where it emphasised the special attention that should be paid to the situation of children, the discrimination against them and the disproportionate impediments to their integration. The Council of Europe has also developed its own action plan focused explicitly on furthering the integration of migrant children into their host societies (Council of Europe, 2017). The successful integration of migrant children has been described as 'a precondition for democratic stability and for social cohesion' (Fokaidou and Hadjitheodoulou-Loizidou, 2014). As the integration of the migrant and refugee children is likely to remain a key feature of European policymaking, we felt that introducing migrant and refugee children to the concept and its main principles was important.

We acknowledged that the varied understanding of the concept of integration has meant that emphasis is often given to the responsibilities of migrants, rather than on the mutual steps that have to be taken both by the states and by the newcomers (Xanthaki, 2016). Migrants must try to be part of the society in which they are found, must respect the norms and values of the host society, but host governments must also ensure the human rights and full participation of migrants in society, without expecting them having to relinquish their identities. Thus, 'integration entails a multi-dimensional and multi-actor process of participation, interaction and understanding'

(Stephens, 1993). The idea is that both sides must make some concessions in order to adapt to and accommodate a new diverse society and this was the understanding of integration that we wanted to promote through "The Rights Hero". Certainly, we were very aware of the potential blurring of integration to assimilation. The European Framework Convention on National Minorities explicitly prohibits states from assimilation:

> Parties shall refrain from policies or practices aimed at assimilation of persons belonging to national minorities against their will and shall protect these persons from any action aimed at such assimilation. (Council of Europe, 1995, p.3)

In designing the integration elements, we took into account the growing body of research showing that SGs can facilitate integration into society by promoting social inclusion, tolerance and transcultural understanding (Chin and Golding, 2016) and also empowering those excluded to make their voice heard (European Commission, 2012); hence applying the concept of integration in its real multilevel essence. Indeed, there are games designed to reduce personal biases (Gonzales, Saner and Eisenberg, 2013), to develop global empathy (Bachen, Hernández-Ramos *et al.*, 2012), and to foster cultural citizenship and social inclusion (Chen, 2014). SGs for learning are developed to create environments in which discourse on a specific topic happens through embodied experiences creating situated learning (Gee, 2003), where players can have a deep, embodied understanding about socio-political challenges. SGs exist along a continuum from games for purpose on one end, through to experiential environments with minimal or no gaming characteristics for experience at the other end (Marsh, 2011). Applying a human rights approach

to integration (Xanthaki, 2016), we followed the Ljubljana Guidelines on Integration of Diverse Societies which encourage States:

> To promote the integration of society, (...) to acknowledge the diversity in their societies and abstain from any attempts to assimilate minorities against their will. In addition, they are obliged to promote the rights of persons belonging to minorities to effectively participate in public affairs and to maintain their identities by providing adequate opportunities to develop their culture, to use their language and to practise their religion. (Organisation for Cooperation and Security in Europe, 2012, p.12)

Also, the CRC contains multiple state obligations ensuring, through articles 29, 30 and 31, the right for children to participate and enjoy their own culture, use their own language, and receive an education aimed at development of their own cultures, languages and values (United Nations, 1989).

The human rights approach to integration meant for us that any elements of the game regarding integration had to be managed carefully. First, integration elements should not end up pushing children towards adopting fully and uncritically the host state's elements and disregard their cultural characteristics; that approach would err towards assimilation. Second, the project should drive towards positioning children as rights holders, empowering them to demand that the State respects, protects and fulfils their fundamental human rights. Our efforts were to make the children themselves aware of their rights to demand that they be realised in their host societies. Accordingly, we view the right to human rights education as a critical aspect to successful integration.

2.2 Serious Games and Human Rights

In this quest for human rights education, serious games (SG), which as described in the introduction, are purpose-driven playful environments designed to impact players beyond the self-contained aim of the game (Mitgutsch and Alvarado, 2012), can be helpful allies. As video games become a dominant pedagogical method for teaching, learning and training (Shaffer, Squire, Halverson et al, 2005), game-based learning (GBL), the academic field that researches and develops games for learning, is rapidly growing. GBL provides a growing body of empirical studies and methodologies (Boyle, Hainey *et al.,* 2016), with various areas of application for educational games.designed primarily with a goal other than pure entertainment (Lameras, Arnab *et al*. 2017; Kafai and Burke, 2015). Such games aim to educate players on a specific topic and often to eventually change their behaviour and attitude towards it. Although learning is the goal, SGs employ entertainment and fun as the means through which the message is delivered. Fun is a core element of games, which is integrated into their design. Games therefore become a structured way to harness the power of fun in the learning process (Prensky, 2001). Although fun should be regarded as a key element of SGs, it can be seen in different ways (Lazzaro, 2015). Serious fun could for example refer to purposeful play (Gabriel, 2018), while increasing realism in a game's design in this context, could facilitate the communication of deeper messages but also create a less accessible and fun play experience (Swain, 2007).

SGs go well with the aims of human rights education and there are numerous games published in the field, which aim to make the public aware of cases where human rights are violated, opening a space for critical thinking (Gabriel, 2018). SGs for HRE can differ from one another in their game design approaches and the ways in which topics and content are realised (Gabriel, 2018), however all approaches can support the transformative purposes of teaching by

tapping into one important goal of the design, the emotional involvement of the player. This emotional involvement can be facilitated via role-playing, or via dramatic agency players are granted when playing a game (Barab, Gresalfi *et al.*, 2010), through making decisions which affect the direction of a story line that is central to the fictional context of the game (Murray, 1997).

Two main design approaches are discussed here, the metaphorical and the literal. The goal of both is to create reflective emotional responses. The literal approach is more concrete and usually easier for players to understand and relate to, but narrows interpretation and might require pre-existing interest in the game's theme, while the metaphorical approach is more open to interpretation and facilitates curiosity, but it can create higher barriers to game comprehension (Rusch, 2017). Which approach is adopted depends on the game's purpose and target audience as well as the aims and the aesthetic decisions of the design team. Both approaches have been used in "The Rights Hero".

An example of a SG for human rights education, which embeds metaphors and concepts of humour into the game design, is *Darshan Diversion* (Murray, 2016)*. The game creates a speed based, humorous play experience aimed at creating awareness for incidents of priests in Hindu temples banning women from entering, especially when menstruating. In the game, the player helps women climb up floors in an attempt to reach the temple entrance while avoiding priests who thwart them if a red blinking light is on, indicating that the women are menstruating. The red light becomes a metaphor for menstruation and the gameplay focuses on how quickly the player can help the women reach the top without being noticed. *Snuggle Truck* (OwlchemyLabs, 2011), a physics-based driving game where the player must save passengers by smuggling them across the border as quickly as possible, follows the same humorous aesthetic, and mechanics-as-metaphor design approach. An example of a literal approach is *Liyla and the Shadows of War*

(Abueideh, 2017), which is based on a true story. In this game the player guides the main character, a Syrian refugee, through war zones in an attempt to reach safety for them and the family who follow once the character passes from a zone without dying. The gameplay is short, only about 20min, but full of surprising events to which the player is called to be quick to respond to. There are many obstacles along the way, such as sudden bombings, shooting, patrols that need to be avoided and danger awaits in every corner.

Regardless of the approach used, many SGs aim to create empathy between the player and the situation through a simulation that puts the player in the shoes of the game's main character. Empathy is 'emphasized as the most critical element by many scholars in the conflict resolution literature' (Kampf and Cuhadar, 2015, p.542). *Liyla and the Shadows of War is an* example of such a game with the visuals and sound design further adding to a captivating, empathetic experience. Other games creating empathy via their gameplay, are *Against All Odds* (UN High Commission of Refugees, 2005), where players live through everyday hardships which refugees are facing, *21 Days* (HardTalk Studio, 2017), and *Syrian Journey* (BBC, 2015) where players adopt the role of refugees trying to escape war, facing tough decisions on their journey, and *Papers, Please* (Pope, 2013), where the player assumes the role of an immigration officer responsible to decide whether an immigrant will be granted access to an imaginary country or not. Similarly designed games are *Bury me, My Love* (Plug In Digital, 2016) and *Darfur is Dying* (Interfuel, 2006). The interesting aspect here is that if the players, to whom the empathetic experience is targeted at, are the people portrayed through the game's characters, then the game becomes a tool that invites reflection and critical thinking of the players' situation not only in the game but also in real life, encouraging them to take action.

This is the approach that we adopted in "The Rights Hero". In contrast to the majority of SGs designed to empathise publics outside the context the game wishes to highlight, it is addressed to players who are in the context. The 'Hero' here is metaphorically the migrant child who is trying to adapt to the new life in the receiving state. The game also uses the literal approach by taking the players through all too familiar scenarios, in order to revisit them from a human rights perspective, and induce reflection. The game also includes a mini game to help them get rewards that is based in the mechanics as metaphor approach. Through the gameplay the intention was to emancipate and empower children to question what they know about their rights, change their behaviour, and consequently foster the change in their surrounding community.

3 Developing "The Rights Hero"

"The Rights Hero" is about a superhero from another world who has landed in an anonymous community. The hero, who is gender and race-agnostic, faces different everyday life situations in the form of game scenarios related to human rights of children, which require response. The superhero has two superpowers, "Resilience" and "Empowerment", and they are built up along the gameplay. They were introduced after discussions with the NGO social workers as the main qualities that migrant children need to have and further develop, and are thus cultivated via the gameplay. In order to accommodate children as much as possible but also to give them the sense of focusing on their identity, "The Rights Hero" can be played in three languages: English, Greek and Farsi. English was chosen as an internationally spoken language and Greek is the language of the host country of the children who would playtest the game, refugee and migrant children with whom NCR worked with. By choosing English, we also wanted to educate children in an international language, while the strengthening of their knowledge in Greek was aimed at improving their integration to the host society. Finally, Farsi was chosen as it was the most

commonly spoken language among those children and also as a reflection of acknowledging and celebrating their own cultures alongside the host cultures.

In consequalising and developing the design of the game, we took into account the Serious Game Design Assessment Framework (SGDA) (Mitgutsch and Alvarado, 2012). The SGDA Framework consists of six components; purpose at the centre, followed by content and information, mechanics, fiction and narrative, aesthetics and graphics and finally framing (Mitgutsch and Alvarado, 2012). Let us analyse them:

3.1 Purpose

The SGDA Framework begins with the investigation of a game's purpose to impact the players via its goals, accepting that the designers follow their explicit or implicit intentions when designing it (Mitgutsch and Alvarado, 2012). SGs and educational games are designed to reach a specific purpose beyond the game itself (Mitgutsch and Alvarado, 2012). In the context of HRE, putting the purpose at the centre of the game's design is particularly suitable, since impacting the childrens' daily life beyond gameplay was a key objective of the research team. The primary objective of the game is to help migrant and refugee children learn their rights and feel empowered to use them to respond to everyday life situations. It is therefore directly informed by transformative pedagogy, with an aim to inform and equip the children with the capacity to make change via becoming aware of personal barriers (Reid and Ewing, 2017), which could come from limited understanding of their human rights. The game also aims to assist the children's integration to the communities they live in. This aim is therefore reflected in the design of the game, aiming at impacting children in specific ways which will help them in their everyday lives, outside the goals of the game.

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3.2 Game Mechanics

Game mechanics refer to the methods invoked by agents to interact with the world of the game (Sicart, 2008). The main goal in "The Rights Hero" is for the superhero protagonist to make decisions that empower them in different everyday scenarios, which take place in a city environment. The player is faced with different situations that threaten to infringe on the superhero's human rights and their ability to participate in the host community. When faced with these situations, the player must choose an action between available options. The narrative unfolds based on the options selected in order to respond to the situations in each scenario, such as a scenario where a child is not accepted in school. Every time the superhero does not take an appropriate action, thus not exercising their respective human right, their Resilience depletes, the scenario is not resolved, and in some cases the game communicates the consequences of the wrong choice to the player. The scenario is replayed later in the game giving the player another chance to select the appropriate course of action. In this way, the game allows children to make the right choice the second time, so that they feel empowered when deciding on these scenarios and learn via repetition. The replayability mechanic is important in the context of serious games and based on the idea that learning of new skills occurs via practice (Wendel *et al*., 2010). It stems from a behaviourist learning approach, where the game offers a place for practice via repetition, while providing rewards for proper responses (Zaibon and Shiratuddin, 2010).

If the right action is taken, Empowerment increases, the scenario is resolved and a reward is given in the form of an item to take back to the Community Centre, which is their starting point and base (Fig. 1). In this case, the player is also congratulated and the correct option is displayed along with a short summary of the applicable provision of the CRC (United Nations, 1989). Rewards are there to motivate since, along with rare game items, they are among the most

enjoyable aspects of gameplay (King, Delfabbro, *et al.*, 2010). For example, in the scenario where the superhero's friend is not allowed to attend school because she is a girl, the player receives the following feedback after selecting the appropriate answer:

> Well done! This is the right thing to do. Your friend now can attend school. According to Points 2 and 25 in the Children's Rights book she has the right to not be discriminated against and the right to education. The situation has been resolved and your friend is going to school. Here are a few books for you. You can take them back to the Community Centre and start your own little library.
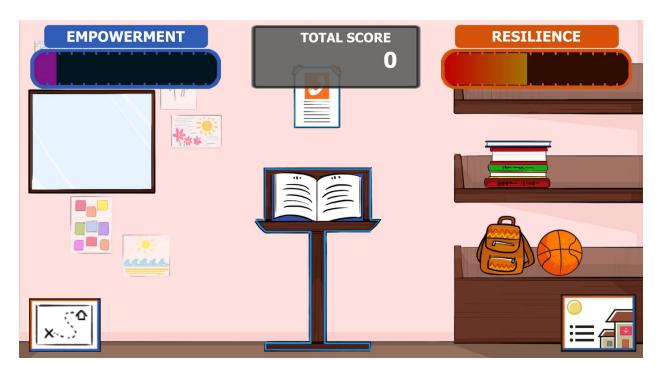
Figure 1: The Community Centre. Rewards appear on the shelves.

In addition to receiving a reward, the player can move to the next stage having improved their Empowerment score. It is important that the players never find themselves without empowerment and resilience; the game starts with enough resilience for it to never be negative. As this was a prototype, which included a limited number of scenarios, clear win and lose states were not defined and the game ended when all of the scenarios were successfully completed. The scenarios use simple language which, in addition to its learning and engaging potential, was considered appropriate to help children understand their human rights. In addition to its learning and engaging potential, the game was chosen as the medium to help children understand their human rights because of the simple language that it uses. Grace (2019) explains: 'Play requires a kind of ludo-literacy or understanding of how to play. The benefit of ludo-literacy is that it can

require very little instruction. It can serve as a more universal language than the most well-spoken languages in the world' (Grace, 2019, p.4).

The gameplay includes a mini-game via which players can get the reward after successfully completing one scenario. In the mini-game, players engage in gameplay in a home setting requiring them to move, in a timed environment, members of a family from household chores to play activities in a way that achieves a 'work-play balance' (Fig. 2). The mini-game is not necessarily meant to increase learning of human rights but rather it is used to engage the player in a solely playful and entertaining way. It also offers another type of gameplay which helps variation. However, another purpose behind the mini-game was to reinforce that children should be able to have ample time to play although they can also help with housework, something that was identified during the tests by at least one participant. This is consistent with Article 31 of the CRC, which provides for the right of children 'to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts.' (United Nations, 1989: article 31). For many migrant and refugee children, this is not, unfortunately, a reality.

Figure 2: The mini-game interface.

3.3 Content and Information

The information that is presented in the game is realistic and accurate and the scenarios are integrated in the narrative and are based on text. The main instrument used as the guide for human rights education has been the CRC (United Nations, 1989). Introducing the player to abbreviated versions of the provisions contained in the Convention has been used to help players understand the basic human rights that must be guaranteed in their new communities. The scenarios used in the game, represent situations where migrant and refugee children are forced to make decisions regarding their safety and rights. This design decision aligns with transformative pedagogy which requires the incorporation and understanding of the learner's particular context and social reality (UNESCO, 2017). All of the scenarios were derived from common, lived experiences of migrant and refugee children, and developed in consultation with NCR social workers working with these

communities. Specifically, the scenarios were constructed via consultation with the director of NCR in Athens and a human rights and international law expert, who was a member of the research team. The below scenarios are illustrative of the situations the players are asked to navigate in the game:

- You go to school, but are not accepted. What do you do?: (a) report it to the Ombudsman; (b) skip school; (c) start shouting and cause a scene.

- You go to play at the playground in the square but it is locked. What do you do?: (a) break the lock; (b) ask the warden to open the gate; or (c) do nothing;

- You face aggression at home. What do you do?: (a) do nothing; (b) run away; or (c) seek help from local community centre;

- While you have a great time playing you suddenly notice a few children trying to start a fight with a child on crutches who wants to join them. What do you do?: (a) intervene to stop the fight; (b) join the fight; (c) do nothing;

- Your friend's carer doesn't allow them to come to school and sends them to work instead. What do you do?: (a) contact the local community centre; (b) the carers are right, it is good that they work; (c) argue with her parents;

- Your friend's carers don't allow her to come to school because she is a girl. What do you do?: (a) contact the community centre; (b) argue with her parents; (c) they are right, she should stay at home.

The scenarios touched upon important rights for these children (Fig. 3). The right to education, the right to play, the right to be free from domestic violence, inter-sectional discrimination and child

labour were identified as some of the main violations migrant children face. In implementing these scenarios, the team aimed at helping children understand ways they could react as well as learn their rights, and also understand the wrong ways to react to a situation and their implications.
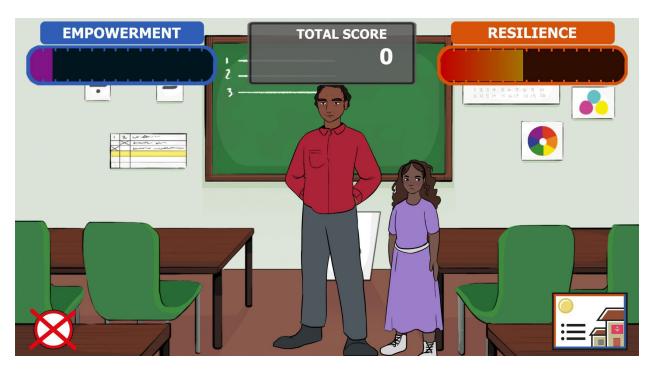

Figure 3: Gameplay scenario about the right to education.

3.4 Fiction and Narrative

The player takes on the role of the game's protagonist, a superhero placed in an anonymous community. The setting of the game is in a neighbourhood of a city (Fig. 4), featuring a number of different buildings, including a shop, a school, a workplace, a park, a community centre, a bakery, a pharmacy, a hospital, a home and the Building of Watchdog for the Rights of the Child (the 'Ombudsman'). This was another way of introducing children to the institutions that work on children's rights and which could help them, namely relevant NGOs and the children's rights Watchdog.

Figure 4: View of the city environment.

One of the main design considerations was the identity of the protagonist, whether they should be a migrant, as children could identify with them and the developing empathy would be created organically, or not. Cases against the choice were concerns that children would not comfortably relate to such a protagonist, as they would only remind them of their own experiences without any extra layers of imagination or interest. Using this approach as our starting point, we decided that the game will feature a hero with superpowers. The team felt that this would make the game more interesting but much more importantly, it would allow migrant children to see themselves as a superhero. Through the game, they would not be marginalized as the vulnerable members of the society, but would be special, and extra-ordinary. In this way, we wanted to empower the children and motivate them to recognise the skills they have developed such as command of an additional language, resilience and ability to deal well with hardship.

The team also discussed at length whether our hero would be an identifiable person or not and whether it would be male or female. We decided that the superhero avatar would be designed as gender-neutral and free from cultural or religious characteristics. The final visual asset for the hero is therefore a black silhouette without identifiable features, wearing a red cape. This ambiguity in design allows easier projection of self onto the character, making it more likely that different children will identify with it. There has been some discussion about the impact of using third person rather than first person perspectives. Buglass, Binder, Betts & Underwood (2020) have argued that individuals are more likely to identify more negative risks in the first person than to themselves. However, this was discussed within the context of social media and focused on user perceptions of risks. Certainly, the ability of a player to project themselves onto the game avatar is key for engagement since according to Schell (2008), the avatar should bring the player's identity out as much as possible as it is their gateway into the gameworld.

3.5 Aesthetics and Graphics

The aesthetics and graphics element of the framework refers to the audiovisual language of the game (Mitgutsch and Alvarado, 2012). The visual assets (characters and environments) are of a stylised, cartoonish style with vibrant colours, limited shading and simplified forms. The game graphics are two-dimensional, and the aim was to create a stylistically consistent visual environment that would be quirky and vibrant, and so widely appealing to the children. User interface elements are consistent with the visual style and icons are used to indicate functional elements of the game effectively (e.g. score and superpower bars). A variety of characters and backgrounds were created to demonstrate the situations making up each scenario. The main game screen shows the city map, representing the community that the superhero is in, with various buildings. The player can navigate in the city map and access buildings where scenarios are

available to play, while other buildings are decorative and thus not accessible. In the Community Center building, there is a book stand via which the player can access the CRC, and a phone poster which provides the contact information for the Ombudsman and the Network for Children's Rights. Overall, aesthetics and graphics match the theme of the game and complement the objective.

3.6 Framing

Looking at the game's framing, in relation to the target group and play literacy, the game was created for migrant and refugee children themselves. However, it could also be used by experts who work with the children as an educational support tool. We reflected a lot on whether we should develop a serious game for mobile phones, especially since migrant and refugee children usually have quite technologically advanced phones in order to keep in touch with family and networks. However, the creation of a mobile game would involve being deployed formally by an app store and this would need more commercial and entrepreneurial skills. We were adamant that our efforts should go on working with civil society and stay away from entrepreneurial aspects, as they take time, effort and resources away from the actual focus we had. After talking to the Network's team, we were convinced that a serious game would work very well and would be really accessible to migrant and refugee children who anyway have continuous access to computers through the NGOs and experts with which they work. We would like to think that this game may become accessible to mobile phones in the future.

The play literacy required to play the game is very basic, making it accessible to those without any experience playing games, as no particular skill is needed. Since the game can be played on a PC, the navigation and controls are very simple and the user interface is easy to understand. Failing to choose the correct option in a scenario does not prevent playing the scenario again, thus fostering

replayability. The mini-game is faster paced, but again basic controls are used. The game does not include an assessment tool or formal education materials, and so it was not meant to be used for formal education (e.g. in a classroom). Following Mezirow's (2000) view on transformative learning, "The Rights Hero" is meant to be an intervention which acts as a movement towards empowerment, without a predetermined learning outcome. The aim is therefore not to assess the children but to facilitate transformation via reflection as a key element of transformative pedagogy (Arigatou Foundation, 2008), leading to connections with own contexts and moving from the learning experience towards action in the community.

Based on the SGDA Framework the purpose of a game should be reflected in its individual elements and the game system presented should be coherent, which is the case for "The Rights Hero". Looking at the game's content, functional context, aesthetics and mechanics, as discussed above, relations can be demonstrated and the game design presents potential to achieve its purpose in helping migrant and refugee children learn their rights. The effectiveness of the game design was demonstrated during the evaluation with refugee and migrant children.

4 Evaluating the Rights Hero

4.1 Method

There is no one single methodology for the evaluation of serious games, while it also appears that no one universal evaluation method for game-based learning exists (Conolly, Stansfield *et al.*, 2009). Methodological approaches employed are often informed by context and the game objectives. In the case of the "The Rights Hero", we felt that collecting data on the children's experiences, perceptions and attitudes, were not suited to quantitative measures. A qualitative approach to data collection was considered important in a context where the children's

experiences and views should be discussed and evaluated. Furthermore, qualitative approaches are often used in under-researched or immature areas where a phenomenon should be explored (Creswell, 2003), and a serious game aimed at helping migrant and refugee children learn their basic human rights from the perspective of the child, could be considered as such.

A playtesting session was organised to test the final version of the game with children at the NCR's Youth centre in Athens, Greece in July 2019. Approximately 30 children, ranging in ages from 11 to 18, participated in the playtest. The participants were primarily migrants and/or refugee children living in Athens and originating from Pakistan, Afghanistan, Iraq, Syria or Nigeria. They arrived at the center in groups of 3-7 who were friends so playing the game was also a group activity. After briefly introducing the game to the participants, the children were given the opportunity to engage with the game over the course of approximately one hour. Since they are underaged, consent to participate was given by the Attorney General. In cases where the children had questions regarding the game, the team provided minimal instruction to them, but otherwise observed the children's interaction with the various game elements. Immediately after the children finished playing the game, they were asked to provide feedback through multiple focus group sessions running simultaneously with different facilitators. Translators were provided where needed. The children were asked questions about (a) their overall experience with the game; (b) what they learned through playing the game; (c) what they did and did not like about the game and (d) whether the game resonated with their experience in their host communities (Appendix A). It was important to us that we made the children involved in evaluating this game. In this way, we were consistent with the two-way route concept of integration. In addition, suggestions made by the children could then be used in any future iterations of the game.

4.2 Group Discussion

In the focus group discussions, we did not keep track of specific numbers of children that responded one way or the other to the game but we noted down recurring feedback which was given by at least 1 or 2 children from each group. The majority of the children indicated in various ways that the game taught them additional information about their rights. For example, one child remarked that the game helped them understand children's rights and it was better than something that is 'more formal'. Another child commented that the game reminded them that children should be able to both work and play. A few children commented that the game helped them to understand their rights better than formal education has, and only one child said that some of the content was taught to them at school, strengthening the power of informal educational settings and play in enabling transformation. For other children, the game reinforced what they already understood, namely the importance of equality in society and the right for all people to be treated the same. This was particularly encouraging, since it is one of the objectives of HRE.

Another recurring theme during the sessions was that the human rights scenarios in "The Rights Hero" were familiar to the children. A large number indicated that the scenarios where the superhero had trouble at school were common in their real life. One youth remarked that the scenario where the child was not allowed to go to school was realistic to them because they knew many kids who could not go to school. Another youth commented that 'of course' they had been subjected to similar situations as contained in the game, as another, who had experienced the event described in one of the scenarios, said that playing the scenario was 'not nice' because it reminded them of how traumatic it was in real life. This validated our design decision to use realistic scenarios that helped with connecting with the children through their personal stories and

experiences even if these evoke bad memories. Arguably, the strongest response to all too familiar stories is to choose the correct line of action and see positive consequences.

An adjacent line of positive consistent feedback was how helpful was the fact that they had to revisit and act on these scenarios when in real life they had not chosen the right course of action. Reliving these scenarios in the safe environment of a digital game, can help the players understand better and build resilience. This correlates with literature, since the act of play in a computer game can facilitate the evolution of human experience in a safe environment, providing the opportunity to explore behaviour which can be transferred into everyday life (Koster, 2004). Games provide safety as they are consequence-free environments that can be experimented in (Whitton, 2010), so players can test conceptual understandings and learn from the impact of unproductive choices which can be reflected upon and ameliorated (Barab, Gresalfi *et al.*, 2010). Some children who hadn't experienced these situations before commented that the game helped them understand how to respond to situations. This shows that many recognised the purpose of the game was to help them understand how to react in difficult circumstances or when someone needs help, and to do so in the 'right way', so by empowering them. As one of the children commented: 'This game is about opening your mind and taking the good way. Better than many other games'. As lack of education is an important obstacle to integration, we felt that by touching on this topic children both learned their rights and were encouraged to fulfil an aspect of integration.

The feedback received from the majority of the children aligned with the body of research demonstrating how migrant and refugee children often suffer from 'injured self-esteem and diminished cultural pride' and that teaching them about their rights will help the process of healing and push them to resume the very important sense of normalcy. The results of the preliminary play test indicates that "The Rights Hero" has the potential to serve as a transformative tool for learning,

embodying, and practising human rights principles to migrant and refugee children who are often deprived of consistent, formal education in their host countries. Through informal interactive game play, the children can be incentivized to learn about their rights and values, which in turn builds their confidence, and may help them advocate for them and demand they be realised in disparate contexts. To the extent that the game makes children more aware of their rights and the values of their host countries, they will be empowered to demand that they be treated as equals. This is a key step in facilitating their integration.

Finally, looking at the prototype itself, children noted that interactive instructions would be useful, and perhaps some voice explanations rather than, or as well as, text. Many children commented positively on the mini-game, which they found engaging, while they liked the faster pace as opposed to the slower paced scenarios. One of the children liked that it was not possible to lose in the game, and another that options were provided in terms of actions to choose from. The use of more animations was suggested by some of the children, which aligns with literature since game features such as animations and graphics are key in engaging players and supporting learning (Huang *et al.,* 2013). This is recognised and the reason for having limited animations in the prototype was purely pragmatic, and had to do with limited development time. It is, however, something that would be addressed in any potential future iterations of the game.

4.3 Challenges

Notwithstanding the positive effects of "The Rights Hero" , by developing it we became aware of the societal challenges presented in the HRE context which may affect the effectiveness of the game but also its design. The main one involved the continued exposure to human rights abuses in the everyday life of the players which can impact on their human rights education. This is highlighted in Osler and Yahya's (2013) study of HRE in post-conflict Kurdistan, where denial of

rights (particularly girls') in both society and schools can cause a disconnect between the course content and the learner's own experience, due to learners' inability to claim the rights they have been educated about. Similarly, HRE in Palestinian Authority schools in the Occupied West Bank have been criticised for not accurately representing the reality under which Palestinians live, and some teachers and students who have experienced rights denials have disengaged from HRE (Moghli, 2020). "The Rights Hero" is an oversimplification of the everyday life of the migrant children, where they continue to face violations of their human rights. In this respect, we were wary that first, we filled even their free time with the pre-occupation of discrimination and human rights abuses; and second, that we over-simplified answers to difficult questions which amounted to 'how to deal with racism'. For these reasons we became aware that HRE games should be informed and tailored to the specific societal and cultural contexts the children come from, and with a thorough and detailed understanding of their needs. It is for this reason that we have not sought to create game design guidelines for HRE serious games. Nevertheless, "The Rights Hero" did give children some generic directions on how to deal with important challenges in their lives. We hope its design and evaluation can be the first step to researching in depth serious games for HRE.

Another limitation to be noted here is the time and scope of the research project. Due to pragmatic limitations, the game that was developed was a prototype and not a fully developed, highly polished product. This was to an extent reflected in the results of the playtest, where for example suggestions regarding interactive instructions, and other high production value developments like animations were made by the children, as discussed previously.

Regarding the extent of the childrens' involvement in the study, it was limited to play-testing the prototype once it had been developed and offering their insights and views. Ideally, the

team would have liked to involve the children in the design process itself, however this was not feasible due to pragmatic limitations as children were based in Greece and direct participation in design workshops was not possible. Yet, all the scenarios of the game were derived from common, lived experiences of the children as identified by the NCR social workers working with these communities. Scenarios were designed in direct consultation with the director of NCR in Athens who visited the UK to participate in the design workshops, as well as a human rights and international law expert who was a member of the research team. UNESCO has specifically underlined the need for research involving children to involve them in the evaluation and the future development of the project:

> Children's involvement in research is vital in ensuring their right to participate in matters that affect them, as recognised in the UNCRC, is upheld. Recognising the methodological significance of involving children in research, the potential impact that research findings may have on their lives, and the importance of upholding children's rights to both protection and participation, underpins the need to have internationally-agreed ethical guidelines and principles that can be applied across multiple contexts. (Graham, Powell, et al., 2013, p.13)

Hence, the best effort possible was therefore made to ensure that the game content reflected some important challenges that the children face in their lives, as also evidenced during evaluation.

The focus group discussions about the game also presented some challenges such as hierarchical relations with 'the experts', since the children were not co-designers, securing anonymity and consent for participation, and moderation of discussions. The evaluation study was

approved by the University's Research Ethics Committee which scrutinised the kind and method of data collection and ensured there were mechanisms in place to guarantee anonymity, informed consent, given by the Attorney General as the legal guardian of the children, and a smooth conduct of the discussions. Power relations between the researchers and children may have meant that the latter were more prone to offer positive feedback, however, we did notice that there was negative feedback in some aspects of the game too, such as its usability and accessibility. In addition, a few children found the scenarios less engaging than the mini-game, which was also expected since the scenarios were slower in pace. With these responses, the discussed positive recurring feedback about the transformative learning on rights, resilience and integration seemed genuinely given. The research team probed with questions that sought to understand the children's experience in an unbiased way. Therefore, we think that the tendency to give positive instead of negative feedback was considerably minimised.

The reality is that the flexibility we showed in the development of the game allowed us to complete it, but also presented limitations. The game was developed with the active help of volunteer Brunel games design students. This worked well as the students had better understanding of designing games, but it meant that we had limited development time. Also, the evaluation had to fit well with the schedule of the Network of Children's Rights and coincide with times when migrant and refugee children were taken to the various activities (e.g. not in the middle of the summer). In addition, development time limitations did not allow us to push the prototype to its next 'commercial' phase, nor was that the main purpose of the project. In view of the success of the serious game, we are still exploring our options in this respect.

5 Conclusions

This article argued that serious games can be important vehicles to teach migrant children their human rights and integration. The article described and discussed the design, development and use of the digital serious game "The Rights Hero" as an informal method to teach migrant and refugee children their rights and help them navigate situations that jeopardise these rights and hinder their integration into host societies. While still in a prototype phase, the game has shown the potential to increase the human rights knowledge of migrant and refugee children and to reinforce positive decision-making with regards to their rights and the norms of their host societies. It has also proven that serious games as an informal teaching tool can provide significant educational value, often not existent or poorly offered by formal education methods. Rather than seeing digital games as replacements for other interventions, or for use in isolation, this article has argued on their potential for empowering intermediaries and professionals who work in the domain of social inclusion to empower children. However, the article identified important challenges too. Being very careful in choosing the scenarios of the game and being in constant contact with social workers and educationalists is important. The intra-disciplinarity of any such project is absolutely necessary. This means that communication channels have to be open and different understandings and technical 'languages' need to be understood by many. Working with migrant and refugee children is also a delight but a challenge too. These children move often and making them partners in such projects, although a priority, is not always practically possible. Finally, moving from a simple prototype to a fully developed and polished serious game requires a lot of processes and development time. More funds need to be secured in such projects so that education becomes effective and specifically tailored for the needs of migrant children in their new environments.

Acknowledgements

References

Abueideh, R., *Liyla and the Shadows of War* (Computer game, 2017), available at: https://play.google.com/store/apps/details?id=org.liyla.war&hl=en_US&gl=US (accessed 18 February 2021).

Arigatou Foundation, "Learning to Live Together: An Intercultural and Interfaith Programme for Ethics Education" (Geneva, ATAR Roto Presse SA, 2008). Available at: https://ethicseducationforchildren.org/images/zdocs/Learning-to-Live-Together-En.pdf (Accessed 24 January 2021).

Bachen, C. M, Hernandez-Ramos, P. F., Raphael, C., "Simulating REAL LIVES: Promoting global empathy and interest in learning through simulation games", *Simulation & Gaming* 2012 (43(4)), 437-460.

Barab, S.A., Gresalfi, M.S., and Ingram-Goble. A., "Transformational play: Using games to position person, content, and context", *Educational Researcher* 2010 (39(7)), 525-536.

BBC, *Syrian Journey* (Computer Game, 2015). Available at: https://www.bbc.co.uk/news/world-middle-east-32057601(accessed 18 February 2021).

Boyle, E.A., Hainey, T., Connolly, T.M., Gray, G., Earp, J., Ott, M., Lim, T., Ninaus, M., Ribeiro, C., and Pereira, J., "An update to the systematic literature review of empirical evidence of the impacts and outcomes of computer games and serious games", *Computers & Education* 2016 ((94)), 178-192.

Buglass, S., Binder, J., Betts, L. & Underwood, J., "Asymmetrical third-person effects on the perceptions of online risk and harm among adolescents and adults", *Behaviour & Information Technology* 2020, https://doi.org/10.1080/0144929X.2020.1742380.

Chen, V., "Facilitating Social Inclusion of Migrant Workers through Digital Game Play", *Glob Dev* 2014 (4).

Chin E., and Golding, D., "Cultivating transcultural understanding through migration-related Videogames", *Asia Pacific Media Educator* 2016 (26(1)), 83–98.

Connolly, T.M., Stansfield, M.H., & Hainey, T., "Towards the development of a games-based learning evaluation framework", in T.M. Connolly, M.H. Stansfield and E. Boyle (eds.), *Games-based learning*

*advancement for multisensory human computer interfaces: Techniques and effective practices (*Hershey: Idea-Group Publishing, 2009).

Council of Europe, "Action Plan on Protecting Refugee and Migrant Children in Europe (2017-2019)". Available at: https://edoc.coe.int/en/children-s-rights/7362-council-of-europe-action-plan-on-protecting-refugee-and-migrant-children-in-europe-2017-2019.html (accessed 2 February 2021).

Council of Europe, *How to convey child-friendly information to children in migration: A handbook for frontline professionals* (Council of Europe, 2018), available at: https://rm.coe.int/how-to-convey-child-friendly-information-to-children-in-migration-a-ha/1680902f91(accessed 2 February 2021).

Council of Europe, *European Framework Convention on National Minorities* (Council of Europe, 1995), available at: https://www.coe.int/en/web/conventions/fulllist/-/conventions/rms/090000168007cdac (accessed 1 February 2021).

Creswell, J.W., *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (2nd Edition ed.)* (CA: Sage Publications, 2003).

Devonald, M., Jones, N., and Guglielmi, S., "Human rights education in humanitarian settings: opportunities and challenges", *Human Rights Education Review 2021* (4(1)), 27-48.

European Commission, *State of play of digital games for Empowerment and Inclusion: A Review of the Literature and Empirical Cases* (EC, 2020), available at: ftp://s-jrcsvqpx101p.jrc.es/pub/EURdoc/JRC77655.pdf (accessed 10th April 2021).

European Commission, *Action plan on Integration and Inclusion 2021-2027* (EC, 2020), available at: https://ec.europa.eu/homeaffairs/sites/default/files/pdf/action_plan_on_integration_and_inclusion_2021-2027.pdf (accessed 2nd February 2021).

European Union Agency for Fundamental Rights, "Children in Migration in 2019: Annual Review" (EUA, 2019), available at: https://fra.europa.eu/sites/default/files/fra_uploads/fra-2020-children-in-migration_en.pdf. (accessed 2 February 2021).

Fokaidou, M., and Hadjitheodoulou-Loizidou, P., "The selfish giant: narration and language instruction in a multicultural pre-primary class as a model for teacher change and development", *Intercultural Education* 2014 (25(1)), 55-67.

Gabriel, S., "The potential of serious digital games for human rights education" in K. Tyner and C. Costa (eds.), *Proceedings of Play2Learn* 2018, 52-66.

Gee, J.P., *What video games have to teach us about learning and literacy (*New York: Palgrave Macmillan, 2003).

Gonzalez, C., Saner, L., and Eisenberg, L., "Learning to stand in the other's shoes: A computer video game experience of the Israeli-Palestinian Conflict", *Social Science Computer Review* 2013 (31(2)): 236-24.

Grace, L.D., *Doing Things with Games: Social Impact Through Play (*Taylor & Francis Group, 2019).

Graham, A., Powell, M., Taylor, N., Anderson, D., and Fitzgerald, R., *Ethical Research Involving Children.* (Florence: UNICEF Office of Research – Innocenti, 2013).

HardTalk Studio, *21 Days,* (Computer Game, 2017), available at:
https://store.steampowered.com/app/607660/21_Days/ (accessed 18th February 2021).

Huang, W.D., Johnson, T.E., and Han, S.H.C., "Impact of online instructional game features on
college students' perceived motivational support and cognitive investment: A structural equation
modeling study, *The Internet and Higher Education* 2013 (17): 58–68.

Iacovides, I., McAndrew, P., Scanlon, E., and Aczel, J., "The gaming involvement and informal
learning framework", *Simulation & Gaming* 2014 (45(4-5)): 611–626.

Interfuel, *Darfur is dying*, (Computer Game, 2006), available at:
http://www.gamesforchange.org/game/darfur-is-dying/ (accessed 21 February 2021).

J.R. and Others v. Greece [2018]. European Court of Human Rights. Application no. 22696/16.

Kafai, Y.B., and Burke, Q., "Constructivist gaming: Understanding the benefits of making games for
learning", *Educational Psychologist* 2015 (50(4)): 313-334.

Kampf, R., and Cuhadar, E., "Do computer games enhance learning about conflicts? A cross-national
inquiry into proximate and distant scenarios in Global Conflicts", *Computers in Human Behavior* 2015
(52): 541-549.

King, D., Delfabbro, P., and Griffiths, M., "The Role of Structural Characteristics in Problematic Video
Game Play: An Empirical Study", *International Journal of Mental Health and Addiction* 2010 (9(3)):
320–333.

Koster, R., *A Theory of Fun for Game Design* (Scottsdale AZ: Paraglyph Press, Inc., 2004).

Lameras, P., Arnab, S., Dunwell, I., Stewart, C., Clarke, S., and Petridis, P., "Essential features of serious
games design in higher education: Linking learning attributes to game mechanics", *British Journal of
Educational Technology* 2016 (48(4)): 972–994.

Lazzaro, N., "The 4 Keys 2 Fun" [Blog post, 2015], available at: http://www.nicolelazzaro.com/the4-
keys-to-fun/ (accessed 20 September 2020).

Pope, L., *Papers, Please* (Computer Game, 2013), available at:
https://store.steampowered.com/app/239030/Papers_Please/) accessed 21 February 2021).

Plug In Digital, *Bury me, my love* (Computer Game, 2016), available at:
https://store.steampowered.com/app/808090/Bury_Me_My_Love/ (Accessed 21 February 2021).

Marsh. T., "Serious games continuum: Between games for purpose and experiential environments for
purpose", *Entertainment Computing* 2011 (2(2)): 61-68.

Mezirow, J., "Learning to think like an adult", in J. Mezirow and Associates (eds.), *Learning as
transformation. Critical perspectives on a theory in progress* (San Francisco, CA: Jossey-Bass Inc
Publishers, 2000).

Mitgutsch, K., and Alvarado, N., (2012) "Purposeful by Design? A Serious Game Design Assessment Model", *Proceedings of the International Conference on the Foundations of Digital Games. Association for Computing Machinery* 2012*,* 121-128.

Moghli, A.M., "Re-conceptualising Human Rights Education: from the Global to the Occupied", *International Journal of Human Rights Education* 2020 (4(1)), article 5.

Murray, J., *Hamlet on the Holodeck: The future of narrative in cyberspace* (New York: Free Press, 1997).

Murray, R.P., *Darshan Diversion* [Computer game, 2016), available at: https://globalgamejam.org/2016/games/darshan-diversion (accessed 18th February 2021).

Organisation for the Cooperation and security in Europe, *Ljubljana Guidelines on Integration of Diverse Societies 2012,* available at: https://www.osce.org/hcnm/ljubljana-guidelines (accessed 2 February 2021)

Osler, A., and Yahya, C., "Challenges and complexity in human rights education", *Education Inquiry* 2013 (4(1)), 189-210.

OwlchemyLabs, *Snuggle Truck* (Computer Game, 2011), available at: https://snuggletruck.com/ (accessed 18th February 2021).

Prensky, M., *Digital Game-Based Learning (*New York: McGraw Hill, 2001).

Reid, D., and Ewing, J., "Placing Technology in Learner-Centered Design through Blended Learning in Post-Secondary Education", In J. Keengwe J and G. Onchwari (eds.) *Handbook of Research on Learner-Centered Pedagogy in Teacher Education and Professional Development* 2017, IGI Global, 69-84.

Reimers, F., and Chung, C., "Education for Human Rights in Times of Peace and Conflict", *Development* 2017 (53(4)), 504-510.

Robinson, V., (1998) "Defining and Measuring Successful Refugee Integration", *Proceedings of ECRE International Conference on Integration and Refugees in Europe* 1998.

Rusch, D.C., *Making deep games: Designing games with meaning and purpose* (BocaRaton, FL: CRC Press, 2017).

Save the Children, *Protection beyond reach, State of play of refugee and migrant children's rights in Europe* (report 2020), available at: https://resourcecentre.savethechildren.net/node/18172/pdf/report_5_years_migration_1.pdf (accessed 12 January 2021).

Shaffer, W.D., Squire, R.K., Halverson, R., and Gee, P.J., "Video Games and the Future of Learning", *Phi Delta Kappan* 2005 (87(2)): 105-111.

Schell, J., *The art of game design: a book of lenses* (Morgan Kaufmann Publishers Inc., 2008).

Sicart, M., *Game Studies - Defining Game Mechanics* (article, 2008)*,* available at: http://gamestudies.org/0802/articles/sicart (accessed 20 January 2021).

Starkey, L., *Teaching and Learning in the Digital Age* (Routledge, Oxford, 2012).

Stephens, M. *Housing Policy Impacts of European Integration: A Preliminary Investigation* (University of Glasgow, Centre for Housing Research report, 1993).

Struthers, A., "The underdeveloped transformative potential of human rights education: English primary education as a case study", *Journal of Human Rights Practice* 2017 (9(1)): 68-84.

Swain, C., "Designing Games to Effect Social Change", *Proceedings of the DiGRA Conference: Situated Play* 2007, 805-809.

Tibbitts, F., "Human rights education: the good surf and reclaiming human rights", *Netherlands Quarterly of Human Rights* 2018 (36(1)), 64-74.

Tibbitts, F., and Fernekes, W., "Human Rights Education", in S. Totten and J.E. Pederson (eds.) *Teaching and Studying Social Issues: Major Programs and Approaches* (Charlotte, NC: Information Age Publishing, 2010, 87-117).

UNESCO, *Transformative Pedagogy for Peace-Building: A guide for Teachers* (UNESCO, 2017), available at:http://www.iicba.unesco.org/sites/default/files/sites/default/files/A%20Guide%20for%20Teachers%20final%20HQ.PDF (accessed 1 February 2021).

UNHCR Operations Portal*, Refugees Situation*, (website, 2021) available at: https://data2.unhcr.org/en/situations/mediterranean (accessed 1 February 2021).

UNICEF, *Refugee and migrant children in Greece as of 31 May 2020* (UNICEF, 2020), available at: https://www.unicef.org/eca/media/12771/file (accessed 1 February 2021).

UNICEF, "Refugee and Migrant Response in Europe", *Humanitarian response* 37, available at: https://www.unicef.org/media/85136/file/Refugee-and-Migrant-Response-in-Europe-SitRep-30-September-2020.pdf (accessed 1 February 2021).

United Nations, *Convention on the Rights of the Child* (UN, 1989), available at: https://www.ohchr.org/en/professionalinterest/pages/crc.aspx (accessed 4 December 2020)

United Nations, *Declaration on Human Rights Education and Training* (UN, 2011)*,* available at: https://www.ohchr.org/EN/Issues/Education/Training/Compilation/Pages/UnitedNationsDeclarationonHumanRightsEducationandTraining(2011).aspx (accessed 4 December 2020).

United Nations High Commission on Refugees, *Against All Odds* (Computer game, 2005), available at: http://legacy.gamesforchange.org/play/against-all-odds/ (accessed 18 February 2021).

Vavoula, G., *KLeOS: A Knowledge and Learning Organisation System in Support of Lifelong Learning* (PhD Thesis, University of Birmingham, UK, 2004).

Watkin, D., Law, E., Barwick, J., and Kirk, E. "Exploring children's understanding of law in their everyday lives", *Legal Studies* 2008 (38(1)): 59-78.

Wendel, V., Hertin, F., Göbel, S., and Steinmetz, R., "Collaborative Learning by Means of Multiplayer Serious Games", in X. Luo, M. Spaniol, L. Wang, Q. Li, W. Nejdl and W. Zhang (eds.) Advances In Web-Based Learning - ICWL 2010, *Lecture Notes in Computer Science* 2010, (6483), https://doi.org/10.1007/978-3-642-17407-0_30.

Whitton, N. *Learning with digital games: A practical guide to engaging students in higher education* (New York: Routledge, 2010).

Xanthaki, A., "Against integration, for human rights", *The International Journal of Human Rights* 2016 (20(6)): 815-838.

Zaibon, S.B., and Shiratuddin, N., "Adapting Learning Theories in Mobile Game-Based Learning Development", *IEEE International Conference on Digital Game and Intelligent Toy Enhanced Learning* 2010, 124-128.

Appendices

Appendix A - Focus Group Questions

- Tell us about your experience playing the game.
- Do you think that using the game for a longer period of time would help you better understand your rights? Why/Why not?
- Was the activity you undertook engaging? Why/Why not?
- Did you feel absorbed in the game, while you played?
- Do you think a game like this would be suitable to help you learn more about your rights?
- Do you think a game like this could help you feel more integrated in the Greek society?
- What was the one thing you most enjoyed in the game?
- What was the one thing you least enjoyed?
- Do you see yourself using a game like this long term? If so, how?
- How would you like to see this game develop? Any suggestions?