IDENTIFICATION OF THE APPROPRIATE METHODOLOGIES |
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PROJECT: "GAME FOR CHANGE"
- SERIOUS GAME - EDUCATIONAL TOOL FOR STRENGTHENING COMMUNITY RESILIENCE

Analysis of the educational methodologies

Assessment regarding the use of gamification as educational tool to prevent radicalization leading to violent extremisam. The Analysis recommends the best approach out of several methodologies that deal both with technical and educational components that are the most appropriate based on the project's vision and expected outcomes.

Project funded by the EUROPEAN UNION

Hedayah
countering violent extremism

BLINK 42-21
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GAME FOR CHANGE

Skopje, November 2019

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Introduction

Educational systems of today are faced with numerous challenges to keep up with the rapid changes taking place in societies. One of those challenges is to innovate educational practice in order to retain the interest of 'new generations' of students who grow up with digital technology and possess different learning styles, a different attitude towards the learning process and high standards of teaching or education.

Teachers, on the other hand, face the challenge how to design the educational process by focusing it primarily on student needs, affinities and demands. Teachers should use different approaches to teaching that will enable students to be active participants in the educational process with a strong motivation and engagement in learning.

Contemporary pedagogical paradigms and trends in education, driven by the development of ICT (information and communication technologies), create certain prerequisites for using pedagogical methods and techniques in order to implement "active learning" with students. One of such trends is the use of digital games in the teaching and educational process.

The purpose of this analysis is to answer the question: Are digital games a justified pedagogical method and technique for active learning of students that would lead to certain changes (cognitive, emotional and social) in the student?

I. European tendencies for the introduction of digital technology in education

Digital technology is an integral part of today's learning and teaching process. European and global international organizations work on several strategic initiatives to modernize education and training, provide research and innovation funding to promote digital technologies and their use for educational purposes, while measuring the presence of digitization in schools.

Namely, in January 2018 the European Commission adopted a *Communication on the Digital Education Action Plan*.[1] This Action Plan emphasizes that EU encourages individuals, educational institutions and educational systems to adapt to the life and work in an age of rapid digital change by setting the following priorities:

- *Making better use of digital technology for teaching and learning;*
- *Developing relevant digital competences and skills for digital transformation;*
- *Improving education through better data analysis and foresight.*

Communication of the European Commission referring to the *Improving and Modernising Education*[2] contains following recommendations:

- *Modernization of education systems and continuous improvement of the quality of the educational process.* Globalization and technological changes open up new opportunities for education and work. Digital transformation changes the labor market and requires setting new skills requirements. To meet these demands, education and training systems need to act quickly and qualitatively in offering competences and skills to students.
- *Developing innovative school education.* Most of Europe's school systems struggle to respond to the profound and complex changes in today's societies and economies. There is a need for schools to adapt to the changing environment in which they operate, including digitization and increased divergence among students. All of these elements require not only the adaptation of the school curriculum, but also a wide range of modern teaching and learning methods and techniques that would meet the needs of all students. European schools should ensure that digital discrepancy in countries is eliminated and that adequate access, digital resources and infrastructure are provided in all societies.

[1] European Commission (2017): Communication on the Digital Education Action Plan.
[2] European Commission (2016): Communication on Improving and Modernising Education.

One of the key messages in the document called *A Memorandum on Lifelong Learning*[3] of the European Community, relates to Innovations in teaching and learning, , in order to develop effective teaching and learning methods. This section emphasizes that as people move into the Knowledge Age, our understandings of *what* learning is, where *and* how *it* takes place and for what kind of purposes, are changing. We increasingly expect teaching and learning methods to adapt to a highly diverse range of interests, needs and demands of students in multicultural European societies. It implies that students should be enabled to become active participants in the education process by using the current successful methods and techniques, but also by exploiting the potential that digital technology possesses in teaching. However, educational experts believe that the proper use of digital technology should comply with certain principles for its delivery in real-time, a specific context, and interconnection between teacher and student. Also, of paramount importance is the competence of educationalists who need to plan and design the educational process with the implementation of digital technology, whether they work in formal or non-formal education. On the other hand, this would mean revising and reforming the initial education of the teaching staff in order to intercept the wide range of learning environments and target groups.

[3] Commission of the European Communities (2000) A Memorandum on lifelong learning.

II. Strategic Educational Documents in the Republic of North Macedonia

In the past twenty years, European tendencies have been followed within the process of development of strategic education documents in our country, and attention has been paid to the quality of the teaching in the educational institutions, increasing the participation of the ICT in the teaching itself.

Namely, within the *National Program for Development of Education*[4] a special program area is dedicated to the Development of ICT in Education. In this area, a particular emphasis is placed on the vision of the development of the information society, as well as on the development of recommendations for new models of teaching and learning by using information and communication technologies.

According to the National Program for the Development of Education 2005-2015, education should support the development of the information society. Knowledge and effective use of ICT by young people and adults is an indispensable skill for their effective integration into social, political and economic life[5]. In addition to introducing new information and communication technologies (ICT) in all segments of action, the 21st century education presupposes intensifying ICT education and training, computer literacy of both young and adults, compulsory and post-compulsory IT education and continuous advancement of educational system. This national program envisages the improvement of the education system and accordingly the democratic potential of the citizens in the role and responsibility of the Ministry of Education and Science, which would enable a more comprehensive introduction of ICT in education and their effective use. Apart from the equipping of educational institutions, i.e. schools with the appropriate IT equipment, this program also envisages linking these technologies into a functional information system, establishing a comprehensive and transparent database of education in the Republic of Macedonia, developing educational services and transferring cultural heritage through new technology[6]. The program locates the development of educational staff as one of the basic prerequisites for the development of the information society and thus it offers a great deal of support for the development of appropriate programs aimed at strengthening and continuous professional development of the education staff.

The National Program for the Development of Education emphasizes that developing an information society and developing the digital competences of its citizens is one of the priorities of governments

[4] Ministry of Education and Science (2005) *National Program for the Development of Education in the Republic of Macedonia 2005-2015 with supporting program documents.*

[5] Ibid, p.12

[6] Ibid. Page 53

in all countries. It is beyond any doubt that education is one of the key segments in encouraging and supporting this development from two aspects. Firstly, this segment should be a leader in the promotion of the information society and the creation of professional and competent staff capable of responding to the challenges of such a society and the needs of the knowledge-based economy. Secondly, the quality of the teaching process depends directly on the application of ICT in it.

"The initiative to apply ICT in education also aims at accelerating the pace of training at all levels, in particular by promoting universal digital eloquence and the general availability of appropriate training for teachers and trainers, including training in the educational use of technology", as emphasized in the National Programme, recommending that all teachers be provided with appropriate training and appropriate measures be taken so that teachers can exploit the potential of digital technology in their classes.

Although the adoption of the current *Education Strategy and Action Plan*[7] barely mentions the implementation and delivery of ICT in school education, there are still some project activities that contribute to the development of students' digital competences, as follows: introduction of new subjects in primary education in view of developing digital literacy, innovation and entrepreneurship; providing a "computer for every child" that emphasizes access to digital devices for all categories of students, including socially disadvantaged categories of students.

The Law on Primary Education of the Republic of North Macedonia[8] (indent 3), among the objectives relevant to the realization of primary education, 3 emphasizes the "achievement of national standards for primary education in the areas of: linguistic literacy, learning other languages, mathematics, natural sciences and technology, *digital literacy*, personal and social development, democratic culture and citizenship, entrepreneurship and artistic expression, culture and multiculturalism. It implies that primary education priorities are based on key lifelong learning competences, including the digital literacy of young generations able to use it for personal, public, social and professional terms.

i. Pedagogical and methodological implications of the game

Educational experts in the new millennium are still debating the role and value of play and its impact on effective teaching and learning despite its recognition as an activity that has developmental potential and educational function. The debates pro and against the play in the educational context produce arguments that place it among the priorities in educational policies, research and practice. Scientists and practitioners are interested into the issue of the play, especially because of its ideal blend of theory and practice, as well as ensuring quality in the process of learning and teaching.

[7] Ministry of Education and Science (2018), *Education Strategy for 2018-2025 and Action Plan.*
[8] Ministry of Education and Science of the Republic of North Macedonia (2019), Law on Primary Education, Article 6.

Research conducted by UNICEF with the support of the Lego Foundation[9] found that a game placed in an educational context provided a more successful and easier foundation for the development of critical, social and emotional knowledge and skills. Throughout the game, students learn how to connect with others, share, negotiate, and resolve conflict situations, as well as acquire skills for self-development in the context of lifelong learning. The game also teaches children leadership, as well as inter-social skills. It is also a natural tool in the educational process by which students learn how to acquire resistance skills and learn how to get along with others, as well as to navigate social connections and tackle challenges in society. Through play, students satisfy the basic human right to express their imagination, curiosity, and creativity - which are key drivers in a knowledge-based society and form some of the complex "21st Century skills".

Studying the game in the context of human development has been done from different aspects. "Pedagogical and psychological literature offers a great pool of well-established scientific theories that explain the origin, essence and meaning of game and play activities. Each of the theories reveals a new dimension and elaborates on its specificity. There is no theory that studies the game and the play in their entirety and complementarity. This confirms the complex structure of the play activity which always retains its developmental characteristic. "[10]

Some of the **theories examining the meaning and role of play in human development** are:

1. *Psychoanalytic theory.* The comprehension of the game in the psychoanalytic theory is based on feelings. Since humans are emotional beings, they often find themselves in a situation where they are unable to cope with their feelings, especially children and teens who are in a period of intense and tumultuous emotional development. This theory provides explanations of the impact of feelings on the creation of intrapsychic conflicts in humans, a problem that is complex and complicated for any age period. A game and play, according to the supporters of this theory, are an excellent mechanism that will enable individuals to learn to manage emotions during intrapsychic conflict. Psychoanalytic theory provides important data on the impact of play on the emotional aspect of personality development. In teaching, unfortunately, very little attention is paid to this aspect of student development. If the game is thoughtfully and systematically implemented in the educational process, it will contribute to the emotional stability and development of the students, coping and control of feelings, resolution of intrapsychic conflicts, etc.
2. *Cognitive development theory*. Supporters of this theory maintain the view on the meaning and role of play in the development of personality, taking cognition as a starting point, thus emphasizing the process of cognition. They try to prove the role of the game in the development of consciousness, thought and thinking, but also its symbolic and cognitive function.

[9] The Lego foundation, UNICEF (2018), *Learning trough play*, New York: UNICEF.

[10] Тасевска, А. (2015), *Методска концептуализација на игровната активност*, Скопје: Филозофски факултет -Скопје.

3. *Cultural and environmental theory*. This theory deals with the study of the cultural context of the game. Home, neighborhood, school, immediate surroundings are important cultural and social contexts that largely determine the game in all its aspects (type, form, interaction, status, etc.). Supporters of this theory believe that in every social environment there are specific cultural aspects of the game that fall under the so-called visible and measurable specific features of the game. However, there are so-called 'hidden values' contained in games that represent views, approaches, and relationships that depend on different social and cultural relations. This theory studies the issue, which gains more attention in in the modern educational context, since the social background of students' everyday life reflects the social relations among them.
4. *Evolutionary and comparative theories*. This set of theories is based on numerous studies that attempt to provide their own interpretations of the impact between game and animal species evolution. They tend to prove that the game is ubiquitous and connects different groups both within the human species and between the different animal species. Evolutionary and comparative theorists believe that the game is the moment in which the common issues come together and a sense of unity among all animal species is fostered. The theory of its power to attract different groups fits in well with teaching environments where the intersection of generational, gender, and social and cultural differences between students and teachers is necessary.

In modern theory and practice, education is placed in the context of the relation between play, learning and teaching. In this sense, play activities contain a wide range of behaviors that can be accommodated in different contexts and have different meanings for children and adults. The play activities provide different opportunities for students to approach the learning process in a more powerful and motivated manner. "The tendency is not to prove that children learn solely through play or that game-based curriculum is the best or the only approach that supports learning. On the contrary, the goal is to make the game an opportunity to develop different activities with different models of action, interaction and communication between the subjects. "[11]

Every attempt to define or categorize the game encounters certain difficulties, mainly due to the context in which it is realized, and it is usually different. It makes the basis for the occurrence of the paradoxical nature of the game, as children play to distance themselves from the reality, but at the same time to get closer to the reality. "Play represents cognitive, cultural, historical, social, physical interconnections, including the relations between real and not real; between past, present and future; between logical and absurd; between known and unknown; between the actual and the possible; between the safe and risky; between the chaos and order"[12].

Starting from the fact that **play and learning** are complementary processes, where on one hand, learning contributes to changing behavior and enriching the experience, and on the other hand,

[11] Ibid., p. 71

[12] Wood, E., Attfield, J. (2005), *Play, learning and the early childhood curriculum*, London: Paul Chapman Publishing, p.7

play enriches the child with new experiences which they later apply them by perfecting their actions, there is no doubt about the significance of the game and play activity in the learning process.

When talking about **game and play activity**, a distinction should be made between these two terms. "A play activity as a type and form originates and evolves from the game. It is based on the spontaneous and free activity of students in meeting their interests, needs and opportunities. According to the students' developmental characteristics, there is an inclusion of didactic and methodical segments in the play that appropriately channel it towards the achievement of an educational goal. The main role in this process is played by the teacher or educator who, based on the interests, capabilities and needs of the students on the one hand and the curriculum on the other, stimulates, initiates or directs the play activity. In the play activity there is a didactic and methodical setting and structure that provides appropriate applicability, practicality and activity in the development of different aspects of the student's personality. The play activity is also characterized by a developmental line that is consistent with the developmental characteristics of the students. It should be tailored to the students' abilities and should be in accordance with the individual characteristics of the students, but at the same time, it should be implemented at the highest developmental level for each student"[13].

The implementation of various games and play activities in the educational process sets forth a number of scientific requirements for its methodical setting, development and creation. To this end, one should consider the whole arsenal of scientific achievements in didactics, methodology, developmental psychology, school pedagogy and andragogy, and then add the nature and needs of students, as well as the curriculum setting of teaching to that basis.

The relation between the theoretical concept and the practical implementation of the game is achieved through the following parameters: goal *and the tasks, content, operations and rules, the activities of the subjects, as well as the expected results.* The value of **methodical placement of play activity** may be perceived because, on one hand, it serves as a means of achieving certain educational outcomes and outputs, and on the other hand, it serves as a form through which students develop their knowledge, skills, abilities and attitudes. Methodically conceived play activities consist the core of the teaching process as important drivers of the student's active position.

Unfortunately, traditional teaching in its overall structure almost does not trust the game and the play activity. Its intellectualistic tendency puts the game in the focus of causing certain intellectual changes in the students, most often equalizing it with didactic activity. Emphasizing the strict discipline in traditional teaching does not provide students with opportunity to initiate, activate, create, and satisfy their interests, needs and opportunities who are under the umbrella of modern active teaching.

[13] Тасевска, А. (2015), *Методска концептуализација на игровната активност*, Скопје: Филозофски факултет -Скопје.

Bloom's Taxonomy of Educational Objectives created upon Guilford's structure of intellect contributes greatly to the scientific basis of the game in *cognitive, affective, and psychomotor domain*, clearly distinguishing it from didactic activity. The taxonomy of objectives within the affective domain is crucial to the present Analysis. This taxonomy includes categories that have an emotional basis, such as attitudes, interests and values. It is divided into five categories:

- Perception (student's readiness and ability to perceive various environmental phenomena)
- Responding (the student not only perceives but also responds to different phenomena)
- Valuing (adopting, prioritizing and giving loyalty to value orientation)
- Organizing value orientations (devising and unifying different value orientations)
- Practical application of value attitudes (values are fully adopted and firmly determine the behavior of the individual)

The content of the objectives in this domain is hardly measurable and visible. Nevertheless, the main goal is internalization or more precisely, full adoption of value orientations to the extent that they become an integral part of the student's personality. This taxonomy contributes greatly to the actualization of the issue of affective nature in a teaching process.

As regards **the implementation of play activities within the teaching curricula,** the specific pedagogical terminology needs to be clarified first. Namely, curricula and syllabuses are national education documents that reflect the social directions of the education system. As a basic school document, the syllabus aims to specify the content and period for the realization of the educational process. The curriculum, on the other hand, contains a systematization of the content per subject in accordance with the syllabus intended for training and education in the appropriate type of school. In general, syllabuses contain certain common elements such as objectives, tasks, program areas, content, activities, outputs, or learning outcomes.

In the teaching planning process, the teacher or educator starts from the syllabus itself, but the way in which the teaching will be delivered depends on several factors in practice. Respect of the students' developmental characteristics, their interests, needs, previous knowledge, working conditions and creative didactic and methodical operationalization should be complementary to the theoretical setting of teaching process within the curricula. Hence, the need for the play activity to be based on the curriculum, so that the play activity can provide outputs (learning outcomes) for each student.

In order to successfully attain the educational objective of the play activity, its precise **methodical articulation** is required. Methodical articulation refers to the good planning of the play activity, as well as the creation of an appropriate *structure* that would identify the elements in its realization.

It is necessary to make a differentiation of the micro and macro components whose aim is to define the structure of the method concept in its entirety within the concept of creation of the play activity.

In that sense, micro-*methodical components of the play activity* have the following meaning:

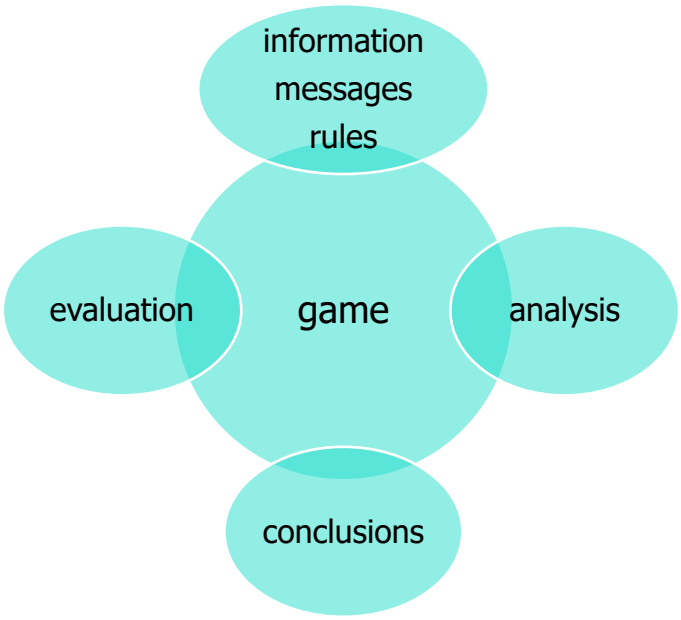
1. Teaching methods in play activity (method of oral presentation, method of conversation, method of illustration, method of simulation, method of demonstration, method of practical work, etc.)
2. Forms of teaching during play (frontal / joint form, group, tandem, individual form, etc.)
3. Orientation of the play (research procedure, facto-graphic knowledge, critical thinking, formation of attitudes and values, development of competences and abilities, development of habits and skills, etc.)
4. Type of play activity (didactic, functional, constructive, symbolic, creative, sensory and motor, physical, constructive, etc.)
5. Place of realization (classroom, cabinet, laboratory, in a specific room, VR, etc.)
6. Duration (part of class, whole class, several classes, one unit, etc.)
7. Integration (contents from the same subject, contents from other subjects, cross-curricular connections, etc.)

On the other hand*, macro-methodic components* of the game and play refer to:

1. Initiation of the play (initiated by the teacher, initiated by the student, initiated by external entities: parents, specialized support staff, etc.)
2. Flow and realization (forecasting all possible situations and scenarios in the game, as well as predicting several possible ways of realizing the game)
3. Educational effects (direct and indirect)
4. Compatibility of the play activity (with students' knowledge, abilities, needs, interests, age and social context)
5. Role and status of the student (active and passive role of the student)
6. The language and discourse used during the play (appropriate to the age of the student, clear, understandable, concise and literary)
7. Verbal communication among subjects
8. Non-verbal communication
9. The climate and atmosphere during the play activity (building a positive and stimulating atmosphere, cooperative spirit and intense interaction)
10. Technological support during the realization of the game (internet, computers, software programs, smart phones and other smart devices, etc.)

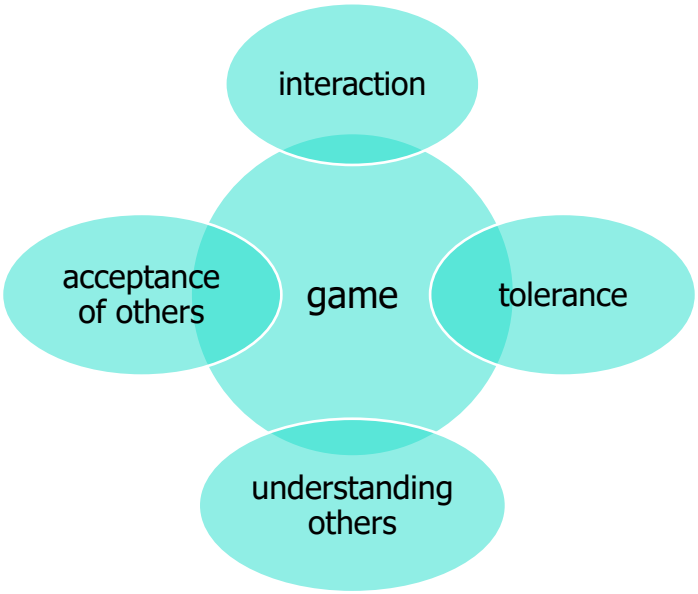
ii. **The effects of the play** relate to benefits in three domains of student development: cognitive, emotional and social development.

Effects on cognitive development



Effects on emotional development

Effects on social development



III. Socio-Emotional and cognitive impact of digital games in educational process

Today, digital games present themselves as one of the most common forms of entertainment, especially for children and teenagers, combining the playful factor with pedagogical advantages, promoting changes in terms of cognitive, behavioral and psychomotor skills in its users.

The use of digital games in educational contexts encourages active, critical, autonomous and participated learning processes, overcoming some of the limitations presented in more 'conventional' methods, engaging players in non-passive forms of acquiring knowledge and skills.

Several authors advocate the use of digital games in learning processes, arguing that it's use improves the learning outcomes of students, due to the intrinsic motivation involved in the act of play: the way the player progresses in the exploration of the game and assimilates knowledge in a context of a continuous narrative line, embeded in a parasocial universe of characters, therefore contributing to the acquisition of meaningful learning and a deeper knowledge.

Gros (2003) enhances that for digital games to be used for educational purposes they must be endowed with well defined learning goals, teaching contents to the users or promoting the development of important strategies and skills to increase their intellectual and cognitive abilities.

According to Malone (1981) and Garris et al (2002), the factors that contribute to the strength and consistence of digital games as educational tools are the challenge, the fantasy (imaginary contexts, themes and fantasy characters), the sensorial stimuli (visual and hearing, dramatic and new), the curiosity and the involved learning. Garris et al (2002) point out that games should include characteristics which enable quality learning. These elements must be incorporated on an integrated platform, to structure objectives and rules, a context of meaningful learning, an appealing story, immediate feedback, a high level of interactivity, challenge and competition, random elements of surprise and rich environments for learning (Garris et al, 2002; Malone, 1981).

These factors determine the motivation to play and learn at the same time (Malone, 1981; Ruben, 1999; Prensky, 2000; Garris et al, 2002), being also important for an effective and successful learning, through the offer of contents like interactivity, feedback, solving problems and the effects of context, which promote reflective behaviors' among the players (Pivec and Kearney, 2007). Games make the learning process possible by allowing the development of critical thinking that will be outlined during the act of playing.

Garris et al (2002) consider that an important part of learning through the usage of games is made outside the game cycle, through a reflection about the experience.

Digital games provide amusing alternatives, more active and autonomous, opposing to the traditional methods used in the process of teaching and learning, making possible the materialization of a Prensky (2001b) statement, which predicts that today's students, the digital natives, will teach themselves.

Digital games are a new challenge to the teaching community, providing the development of cognitive skills and making possible the socio cultural interactions stated by Greenfield (1996), to whom videogames (or digital games) play an important social and cultural role and at the same time favor the cognitive regulation.

Some types of games and technologies associated to digital games are already being used as supporting tools to achieve learning goals in formal education environments, either directly or as an attractive tool for unmotivated students (BECTA, 2003).

According to Prensky (2000) and Gee (2003) games allow the development of new learning strategies, based on new interactivity patterns, like feedback, reflective and critical learning, target levels of understanding semiotics, learning through discovery and exploration, situated learning, role-playing and constructivist learning. Regarding this problem, Grealls (2000) refers that digital games enable the assimilation and the appropriation of information, the construction and the application of cognitive strategies, developing various skills such as psychomotor ability, decisions making and perseverance.

To Prensky (2000), the main benefits of gaming are the users' capability of processing simultaneous information, leading to the development of awareness of non linear information, which is typical from digital natives (Prensky, 2001a, 2001b), as well as enabling the sense of belonging to a non geographical community, which should broaden the players' horizons.

Gee (2003) suggests that the didactic principles involved in game based learning can change the learning processes in educational institutions, either in the relation between teachers and students or in the institution itself, by turning the learning process into something critical and active. To Gee (Ibid.), games are structured in a way that encourages this kind of reflexive, non passive learning, through its design and the areas of semiotics involved, which promotes the player's understanding and establishment of interrelations between semiotic areas. This allows the development of a meta level of comprehension on these areas, enabling autonomy, reflection, appropriation of meanings, self learning and the improvement of skills. This process is characterized for its cooperative environment and for the establishment of relationships between affiliated communities, which share one or more common interests.

Malone (1981), Ruben (1999), Garris et al (2002) and Pivec e Kearney (2007) point out the development of cognitive, visual, space and memory skills that is provided by the usage of digital games.

IV. Implementation of simulation game for prevention of violent extremism and radicalism as an educational tool in the educational process

The role of education in preventing violent extremism and deradicalization of young people has become globally important in recent years. A major step in recognizing this phenomenon is the launch of the UN [14]Plan of Action to Prevent Violent Extremism, which emphasizes the importance of quality education in preventing this phenomenon.

Also, the UNESCO's Executive Board in 2015 adopted the Resolution No. 46[15] which unambiguously affirms education as a tool to prevent terrorism and violent extremism, as well as racial and religious intolerance, genocide, war crimes and and crimes against humanity globally. No matter where education and learning take place: in schools, clubs, training centers, the community or at home, they are a significant component of the social commitment to prevent violent extremism and radicalism.

The aforementioned points to the advantages of education in preventing violent extremism and radicalism:

- It helps young people develop the communication and interpersonal skills necessary to conduct a dialogue, express personal disagreement, and learn about peace approaches for changes.
- It helps students develop critical thinking to investigate assertions, confirm rumors and questions about legitimacy, and complain against extremist beliefs.
- It helps students develop resilience to extremist narratives and acquire the social and emotional skills they need to overcome their doubts and engage constructively in society without resorting to violence.
- According to UNESCO, it is achievable by building Global Citizenship Education (GCED), aimed at fostering a sense of belonging to a broader community and common humanity and building a sense of respect for all people.

In doing so, it should be noted that *global citizenship* refers to a sense of belonging to the global community and humanity in general, with its presumed members experiencing solidarity and collective identity among themselves and collective responsibility at the global level.

Global citizenship education is on the rise, and it focuses on developing students' competences for their active engagement in a peaceful and sustainable development of their societies. Global citizen

[14] Plan of Action to Prevent Violent Extremism. Report of the Secretary-General (A/70/674) http://www.un.org/en/sc/ctc/docs/2015/SCR%202178_2014_EN.pdf

[15] Decision 46 adopted at the 197th session of UNESCO's Executive Board (197 EX/Decision 46) http://unesdoc.unesco.org/images/0023/002351/235180e.pdf

education seeks to create respect for human rights, social justice, gender equality and environmental sustainability, which are fundamental values that help raise defenses against violent extremism and radicalism.

The use of simulation games as an educational tool in the prevention of violent extremism and radicalism is conducive to active student engagement, high motivation to participate in such educational activity, and access and elaboration on sensitive topics that traditional teaching cannot process in a classical manner.

Some of the competences that students would gain through the simulation game for detecting and preventing violent extremism and radicalism are presented in the table below:

	knowledge	skills	attitudes
Cognitive dimension	• Learners acquire knowledge and understanding of local, national and global issues and the interconnectedness and interdependency of different countries and populations; • Learners are informed on different aspects of violent extremism and radicalism and other global issues;	• Learners develop skills for critical thinking and analysis; • Learners recognize forms of manipulation; • Learners are able to distinguish between fact and opinion and to check the accuracy of information.	• Learners are aware of prejudices, stereotypes and their impact.
Socio-emotional dimension	• Learners are aware of responsibilities and based on human rights; • Learners develop intercultural competencies.	• Learners develop attitudes of empathy, solidarity and respect for differences and diversity; • Learners develop ability to recognize other people's emotions; • Learners develop ability for effective and appropriate interaction with others who are linguistically and culturally diverse.	• Learners develop a sense of belonging to broader humanity; • Learners possess a set of values based on human rights; • Learners respect differences of other people; • Learners show interest in understanding diverse people, cultures and lifestyles.
Psychomotor dimension	• Learners know how to act effectively and responsibly during conversation.	• Learners respectfully listen to different opinions and views and express their own.	• Learners develop self-confidence and positive approach to conflict situations; • Learners develop motivation and will to undertake certain activities.

As regards the implementation of the simulation game for prevention of violent radicalism and extremism, there are many possible solutions and ways of realizing it due to the type and nature of the competences that would be acquired in processing such issues. Namely, the curricula for several subjects in primary and secondary education cover topics that touch on and / or fully elaborate topics that directly or indirectly relate to violent extremism and radicalism, such as: sociology, philosophy, psychology, etc. In addition, the possibility to deal with the issue of violent extremism and radicalism at homeroom should not be excluded, where the class teacher would discuss with students topics from everyday life while subtly touching upon specific areas related to the aforementioned issues.

When designing the game, following **contents and/or subjects** need to be taken into consideration which provide an opportunity for pedagogical early detection and prevention of violent extremism and radicalism may be tackled:

▶ Civic Education - allows students to reflect on the topics and concepts of rights and obligations in different social settings, justice, identity, and a sense of belonging. The said subject provides a solid basis to debate on fundamental human rights and principles, including the freedom of expression and to identify and combat hate speech.

▶ History – topics that cover genocide and mass atrocity crimes, such as the Holocaust would activate students to reflect upon the propaganda of hate, roots of racism, antisemitism and political violence. Such topics also allow students to discover how historical narratives are construed and how they can cause conflicts and prejudices in a society.

▶ Ethics and religion - through content offered by these courses, students can gain an awareness of, as well as respect for, differences and diversities in the narrower and wider social environment as well as an opportunity to explore different values and beliefs while taking into account prejudice and racism. Discussion topics could include secularism and humanism, atheism, religion, and so on.

▶ Languages - provide a good basis for acquainting with the wide range of cultures, values and views of world history and human thought. In addition to building key writing skills and oral arguments, languages contribute to the development of media literacy.

▶ Media Culture - through this cross-curricular topic, students can become acquainted with the way, structure and placement of information; how they can be manipulated for violent purposes and how new sources of information compete with professional media. An overview of online media literacy can help students learn how to use the internet and social media in a safe and effective manner. This issue can also be linked to civic education on human rights and the difference between free speech and hate speech.

▶ Gender equality and gender-based violence - for a better understanding of the roots of gender-based problems: to understand certain attitudes regarding the status and role of women in society; to empower young girls and boys to take constructive, non-violent action against extreme arguments that promote violence especially against girls and women.

► Art - it promotes understanding and values of a particular culture, as well as artistic expressions other than their own. Art can be a universal language for connecting communities and cultures across time and space. It offers an opportunity to debate that denial and destruction of cultural and artistic heritage as a result of violent extremism is a loss for the entire humanity.

Teachers or educators are one of the actors for successful implementation of simulation game. They should possess expert knowledge on the subject, but also pedagogical readiness, as well as sensitivity in order to achieve successful implementation and control of the implementation process.

Teachers should pay attention to the following when implementing a simulation game to recognize and prevent violent extremism and radicalism:

- In what manner the topic of violent extremism can be linked to curriculum content;
- They should try to understand social, cultural, ethnic and religious divergence in the local context in which they teach, before conveying it to students;
- They should Include the minorities' standpoint in the simulation game, or ensure that their views are also represented; thus ensuring a balanced overview of things;
- They should clearly emphasize their role as a moderator (objective voice, independent facilitator, etc.), to avoid misunderstanding that a certain view or standpoint is taken;
- Demonstrate sincerity, sensitivity and openness for discussion on such a subject, thus gaining the confidence of the students;
- They should identify the appropriate time for addressing such sensitive topic;
- In some cases, discussion on local manifestations of extremism and radicalism can be too complex and sensitive for students. In such circumstances, it may be more productive to give examples of characters that are unrelated to the local context.

As regards **the traits and characteristics of the characters** in the simulation game, they should possess some or all of the following traits that would contribute to the development of certain traits and attitudes among students in achieving the educational goal of the game:

- **Social Pessimism** (Inclination to believe in danger and degradation of the world. Vision of the world as unstable, unknown and unpredictable. Eschatology - anticipation of future collapse.)
- **Intolerance** (Rejecting universal values. Refusing to tolerate and respect opinions and beliefs contrary to their own. Aspirations to impose their own opinions and beliefs on others. Refusal to tolerate differences and disrespect of people from different social group, wit a desire to blame the "outsiders".)
- **Cult of Power** (Excessive and unrealistic display of strength and power. Power is the preferred means of conflict resolution and proving something. Thinking and categorizing people into dominant-subordinate, strong weak, leader-follower. Identification of powerful characters.)

- **Mystic** (Paying attention to symbols of a supernatural significance. Superstitious. Believing in mystical determinants of one's destiny and believing in one's own special mission.)
- **Destruction and cynicism** (Generalized hostility to humankind. Typical manifestations of vulgarity and sexism. Lack of compassion and empathy. Lack of value for human life. Lives of others can easily be sacrificed for the "cause". Despising opponents and their lives and values.)
- **Normative Nihilism** (Ignoring social norms and laws. Think that rules and norms can be ignored in order to achieve one's own goal. Distinguishing between the official norms of the majority and norms of one's own social group. Mistrust and misunderstanding of the legislative process. Resentfulness to people who trust and obey the laws.)
- **Anti-introspection** (Dismissal of everything that is subjective or which is based on human inner freedom. Contempt for persons who only observe the mental and emotional processes. Denial of imagination and sensitivity. Focusing only on simple ideas, direct actions, not reflection.)
- **Conformism** (Desire to belong somewhere, group cohesion and orientation to increase self-confidence by self-declaring belonging to a particular high status social group. Desire to be "part of the team" while defending the goals of the group. Susceptible to peer pressure.)
- **Acceptance of Aggression** (Aggression is a way of detecting frustration. Articulated tendencies to target frustration and aggression to certain categories of people such as migrants, homeless people, LGBT community, etc.)

Conclusion

The use of digital game based learning is increasingly becoming a widespread form of teaching and learning in the schools of the new millennium. It implies using digital video games as educational tools. The basic idea behind game-based learning is to oppose outdated teaching methods and techniques that are not suitable to the characteristics of 21st-century learners, while helping them learn new content in an interactive manner.

Simulation games, which are games that represent real-life situations, are part of the overall concept of digital game based learning and hare successfully applied in education systems worldwide, but also in our country.

The use of simulation games as an educational tool in the prevention of violent extremism and radicalism is conducive to active student engagement, high motivation to participate in such educational activity, and access and elaborate on sensitive topics that traditional teaching cannot process in a classical manner.

Successful implementation of the simulation game to prevent violent extremism and radicalism requires certain prerequisites to be met: finding a solution for appropriate program and didactic integration (within multiple subjects, such as cross-curricular activity and / or homeroom instruction), training of teaching staff for the implementation of the simulation game (as well as adequate knowledge of violent extremism and radicalism), adequate digital equipment of schools, and sensitization of students and parents teachers on this issue through the teaching staff and school staff.

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