GAME IT

GameIT: Gamestorming for Innovative Teaching

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GameIT:
Gamestorming
for Innovative Teaching

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PREFACE

Theoretical and practical issues in gamification

The current monographic volume consists of twelve articles that have been prepared in a joint venture with the project *GameIT: Gamestorming for Innovative Teaching* realized by four European higher education institutions from Poland, Romania, Slovenia, and Norway. Introductory positions come from three invited authors and the following nine from participants who have taken part in the realization of the project.

The first position in the volume occupies the article "Play and game in semiotic-communicational studies of culture" written by Elżbieta Magdalena Wąsik, who performed the function of an external-observer and opinion-giver from the Adam Mickiewicz University in Poznań. Her article informs the readers about the inborn aptitudes of human individuals to engage in social communication through play- and game-related activities. The author's article supports the view of psychologists and philosophers of language that playing games is closely connected with the modeling endowments of humans to intentionally create the works of art in culture. Moreover, it highlights also the role of culture as a synthesizer of the experiences of communicating individuals realized through socially-shared games in accordance with the principles of axiology, striving towards the absolute in the betterment of conditionings that govern human existence.

Zdzisław Wąsik, in turn, who conducts seminars as an academic teacher in the Philological School of Higher Education in Wrocław, alludes in his article on "Playing games as a lived experience of epistemological pleasure" to the famous phrase "the play of musement", known among semioticians. His article aims at rethinking the concepts of knowledge and knowing, order, and learning in relation to signs and signification. Therefore, it starts with placing the static epistemology as a theory of socially generalized knowledge about cosmic reality in opposition to the dynamic epistemology of knowledge acquired individually by cognizing organisms in adaptation to their environmental surroundings. These organisms treated in terms of human subjects who create and discern or learn and utilize the meaning of signs are seen not only as acquiring their knowledge about their own world of life which changes and differentiates but also as forming their own worldviews through the se-

miotic categorization of reality understood as a pleasure-oriented ordering of learned worlds beyond the signs.

The next author, invited among contributors to this volume, Joanna Hardukiewicz-Chojnowska, an academic teacher from the Philological School of Higher Education in Wrocław, who acted also as an internal observer and game-playing reviewer has devoted her attention to "The influence of game-based learning on the improvement of communication skills in English language learners". As she notices, how to achieve proficiency in oral communication belongs to the most relevant questions in foreign language teaching. Hence, it is worth investigating, in her view, the influence of game-based activities on the development of speaking abilities in order to show the benefits they offer to both learners and teachers. By providing some characteristics of games, their typology, as well as the methods of introducing them to the classroom, the author brings to light such games that are construed as stories arguing that their application in education largely facilitates the progression of communicative skills of learners.

Mateja Bevčič, Sanja Jedrinović and Jože Rugelj, project participants from the University of Ljubljana, Slovenia, discuss "Learning outcomes, skills, and competences achieved in using games". Departing from the assumption that contemporary education should move" from traditional transmissive didactic model of teaching to active student-centered learning" they have stated that the GameIT project gives the students "an opportunity to practice and develop the 21st-century skills and competences, such as communication, collaboration, logical and creative thinking, etc." Thus, the Slovenian contributors to this project are interested in the prospective employment of games in pedagogical practice, trying to answer the question when to use them in order to achieve desired learning outcomes in association with expected types of communicative skills.

Ane Bergersen and Hege Gjerde Sviggum, project participants from Western Norway University of Applied Sciences in Sogndal, have been interested in "Using games as a method for learning multicultural competence in teacher education". In their article, they deliberate how the students rate the learning of different skills during playing the Planet Hexagon game, developed for the purpose of innovative teaching. As they have stressed the aim of this game is to teach the students such skills, connected with multicultural competence, as, e.g., "intercultural consciousness, cross-cultural understanding, and intercultural communication".

In the same line, the idea of "Role-playing games and the interactive role of the teacher. RPG – entertainment or education?" is pondered by

Eivind Rogne and Christina Løkslett, from Western Norway University of Applied Sciences in Sogndal. Their aim has been to expose "the interactive role of the teacher and educator when using roleplaying games ... as a didactic tool in the classroom". At the same time, they have been interested in how the teacher may facilitate the balance between entertainment and education in the classroom.

Dorota Jużwin, a contributor from the Philological School of Higher Education in Wrocław, has proposed to consider the topic of "'Signing the pact with Devil Boruta' – Teaching Polish culture in the world of role-playing games". In her contribution, she has been interested in achieving such objectives, as follows, namely to "present certain aspects of Polish culture to both Polish nationals and foreign students in an entertaining way, which improve oral communication of all players by increasing fluency in English, and encourage effective cooperation among people representing four countries taking part in the project". As she adds, her model of a cooperative role-playing game, named *Polonia Misteriosa*, has been widely inspired through ideas elaborated earlier by the Slovenian team for the *Intensive Study Programme*, to be used as a didactic tool in a classroom environment at a college level of education.

Małgorzata Bieszczanin, the second contributor to the GameIT program from the teaching staff of the Philological School of Higher Education in Wrocław, has described her own concurrent project "City game as a giant board game created by students for students under a teacher's guidance. A practical guide" Her contribution aimed at presenting "to academic teachers the procedure of creating an educational city game (regarded as a kind of board game) during an academic project carried out by students under a lecturer's supervision". The author proposed a matrix for a city game developed in cooperation with her students' own urban game "From Wratislavia to Wrocław". As she summarizes, her academic project has been tested among pupils of a secondary school in Lower Silesia as well as among international students of the Erasmus+ program, particularly from Austria, France, Greece, Spain, and Turkey.

Liliana Mâță, Venera-Mihaela Cojocariu, and Gabriel Mareș, from Vasile Alecsandri University of Bacău, Romania, have investigated "The application of games as an effective teaching method in the higher education training process". As they point out, according to recent developments in education there is an increasing role of game strategies in the training process, at "all levels of education from kindergarten to higher education and for all the fields of professional training, as, e.g., artistic, military, medical, accounting, tourism, science, geography, education". Hereto, they notice an "unprecedented increase in the types and number

of games, both classic and digital, created, adapted and integrated with the formative process". In their view "the particularities of teacher training are just a few factors that provide specificity to integrating the game into the academic training process". Therefore, the aim of their study has been to highlight the "advantages and disadvantages" of games both for students and teachers at the level.

Sanja Jedrinović, Mateja Bevčič and Jože Rugelj, contributors from the University of Ljubljana, Slovenia have written the chapter on "A methodological guide on designing games and game scenarios". As they claim, the "use of games in the learning process can encourage students to develop higher-order thinking skills, as high-quality games involve activities that require the construction, synthesis, and application of knowledge". Subsequently, they point to the need for developing "a suitable game design methodology". In reviewing varieties of "most commonly used methodologies, the authors of the chapter formulate postulates for considering a methodology, which provides "guidance on how to promote communication, creative thinking, adaptability, and cultural awareness when playing the game". Such methodology, in their view, "can be used to create different types of games, especially cooperative role-playing games" and "can be also applied as a tool for implementing and evaluating a game in education and as a tool for teaching game design"

Ioana Boghian, Carmen Popescu and Cristina Cîrtiţă-Buzoianu, from Vasile Alecsandri University of Bacău, Romania, in their chapter on "Ways of implementing games in humanities", declare that their aim "is to highlight competences built and developed through the use of games in general and, more particularly, in the humanities where the competences built and developed by means of games are approached in terms of knowledge, skills, and attitudes". More specifically, they formulate certain questions "how to incorporate games at the language-specific domains of education and how to use games most efficiently in the classroom". Their intention is to build a methodological framework that would allow "the educators across humanistic disciplines to better understand the advantages and drawbacks of games and simulations specific to their pedagogical goals".

To end with, Anna Zasłona, the coordinator from the Philological School of Higher Education in Wrocław has summarized the project "*GameIT: Gamestorming for Innovative Teaching* – A retro- & prospective outlook on the project", exposing its multidisciplinarity and complexity in "designing and implementing innovative cooperative games". Undoubtedly, as she has emphasized, it may foster the advancement of

the teacher's competences indispensable for their practical adeptness in the methodology of education, information, and communication while supporting their pioneering initiatives in the implementation of modern technologies especially in the fields of gamification and game-based learning.

Zdzisław Wąsik, editor of the project *Wrocław, June 23, 2020*
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Play and game in semiotic-communicational studies of culture[1]

ABSTRACT. The objective of this chapter is to show that play in the world of humans is basically something different than in the world of animals. Thus, it presents selected approaches to human abilities to engage in play- and game-related activities from the viewpoint of cultural studies, psychology, studies on economic organization, philosophy of language, as well as communication studies to find an explanation of the play-related character of communication. Emphasis is put, *inter alia*, on the significance of metacommunicational messages for the understanding of communicating individuals, comparable to competent players, who, receiving and interpreting information conveyed by their communication partners, react to them more or less appropriately. In the next order, the article stresses the role of culture, as a peculiar play of human possibilities that synthesizes the experiences of humans, ordering them according to axiological principles, allowing human beings to strive for a more complete and fuller existence. Moreover, its author supports the claim that human individuals intentionally create the works of art, aiming at a better and better understanding of their world through a play-related modelling activity.

KEYWORDS: game and play, language and art, modelling systems, symbolic forms, theory of culture

1. Play and game as the activities of man

Introducing the concept of play, one has to present Johan Huizinga's (1872–1945) view on human nature, according to which man is not a being reasonable enough to call him *homo sapiens* 'wise man'. Huizinga, an anthropologically-oriented Dutch historian, was inclined to disagree with those thinkers of this time who called the man *homo faber* 'man the

[1] This chapter elaborates some aspects and parts of the author's research conducted for the purpose of her presentation: (Elżbieta Magdalena Wąsik) "The semiotic self as a creator/actor and consumer/participant of "the play of musement" in the ecology of living systems" at the 42nd Annual Meeting of the Semiotic Society of America (SSA): "The Play of Signs/The Signs of Play", held at Universidad Popular Autónoma del Estado de Puebla (UPAEP), in Puebla, Mexico, on October 25–29, 2017. Still, another contribution of the author, more related to the SSA topic, has been made at 36th International Human Science Research Conference: "Between Necessity and Choice: Existential Dilemmas in the Human Life-World", in Jelenia Góra, Poland, on July 11–14, 2017, the result of which constitutes her recent publication (Wąsik 2019. The play as a purpose and an end in itself: On the social becoming of a human individual).

maker', noticing, in the foreword to his book *Homo Ludens* (1949 [1938]: ix), that many animals were makers as well. Man, who deserves to be called the creator, is, according to Huizinga, all the more worthy of being named *homo ludens* because of his tendency to partake in playful activities. So, apart from reasoning and making, playing can be considered the third occupation that features human beings.

According to renown psychologists play is, as has been summarized by Józef Pieter (1972: 310–370), generally associated with activities in which humans engage voluntarily and spontaneously. Requiring from the players both imagination and creativity, it is, in fact, not quite serious but still the result of their intrinsic motivation. As an activity done for recreation and pleasure, play cannot be a means to an end. Even though play usually brings to mind pastimes of the children and juveniles, it is also, in fact, the adults who play in their leisure time. For humans, play is an activity through which they create the meaning of their world. If one remembers Huizinga's argument that not only humans but also animals possess playful abilities, one has to state that, in nature and culture, innumerable forms of play serve learning and acquiring knowledge and new skills.

With play, researchers usually associate the concept of the game that refers to strategic interactions between two or more participants whose rational, goal-oriented behavior, resulting from the knowledge of rules, aims at maximizing profits. Dealing with the specifics of games of strategy, John von Neumann, a mathematician, together with Oskar Morgenstern, an economist, formulated a mathematical theory of economic and social organization in their book *Theory of Games and Economic Behavior* in 1944. One has to admit, in keeping with von Neumann and Morgenstern, that, in a game of two or more persons, the win does not depend so much on fate but rather on strategy, knowledge, and, above all, on planning skills. In line with van Neumann and Morgenstern's (1953 /1944/: 32) claim, the everyday concept of games is surprisingly adequate for economic and social problems. Therefore, the concept in question should fulfill, in their opinion, the same function, which many geometric-mathematical models have performed in hard sciences, especially as it is sufficiently precise and exhaustive to facilitate a statistical treatment of the investigated events and processes. Furthermore, their mathematical game theory appeared to be useful in situations of conflict and cooperation in many other domains of social life, in which the result obtained by one person depends on the decisions taken by others. One has to add, that von Neumann and Morgenstern (1953 /1944/: 46) were particularly interested in games, in which the sum of all payments received

by all players after its completion, was zero, being aware that all games played for entertainment were, in fact, of this type.

Von Neumann and Morgenstern departed from the statement that, in order to analyze and predict the actions of game participants, one has to assume that they make rational decisions. To give a combinatorial definition of the game, von Neumann and Morgenstern have introduced important terms that explain its relation to play. For von Neumann and Morgenstern (1953 /1944/: 48–49), the game is the set of the rules which describe it, while any case when "the game is played in a particular way from beginning to end, is a play". The components of the game are the moves, that is, abstract occasions. But, in a play, in concrete instances, the players make choices, that is, they chose between the specific alternatives. In other words, as "[t]he game consists of a sequence of moves, and the play of a sequence of choices", so "the moves are related to the choices in the same way as the game is to the play" (cf. von Neumann, Morgenstern 1953 /1944/: 49). Therefore, one should not confuse the rules of the game with the strategies of the players. According to von Neumann and Morgenstern, the players are free to select the general principles governing their choices, viz., their strategies. Though any strategy can be good or bad, it is left to the player's discretion whether to use it or not. As to the rules of the game, however, they must be strictly observed, especially as it is no longer the same game when (a) player(s) break(s) its rules.

2. On metaphorical applications of the concepts of play and game in the study of language and communication

At this point, a few examples of the application of the concepts of play and game with respect to human communicative behavior in their daily life are worth mentioning. Hereto belong, the theories of language-in-use, especially of speech acts, and the social theory of communicative transactions, known as transactional analysis.

In the mid-20th century, philosophers of language, particularly interested in questions of nature, origin, and understanding of language, came to believe that the meaning of words is the result of their application by speakers in different situations. Ludwig Wittgenstein (1889–1951), the originator of ordinary language philosophy, introduced the concept of the language game, arguing that the meaning of a word (or a sentence) is its use by language speakers. Explicitly, he held that the meaning of language is not contained in its words and grammar but depends on its actual usage in a context, equating, this way, the use of lan-

guage to a game, the rules of which help to accomplish goals. In his *Philosophical Investigations*, Wittgenstein (1957 [1953]: 11) contended that, according to his assumption, "the term '*language-game*' is meant to bring into prominence the fact that the speaking of language is part of an activity, or of a form of life". Among the multiplicity of language-games, he listed: giving orders, and obeying them, describing the appearance of an object, or giving its measurements, constructing an object from a description (a drawing), reporting an event, speculating about an event, forming and testing a hypothesis, presenting the results of an experiment in tables and diagrams, making up a story; and reading it, playacting, singing catches, guessing riddles, making a joke, telling it, solving a problem in practical arithmetic, translating from one language into another (cf. Wittgenstein 1957 [1953]: 11–12). In the practice of the use of language, speakers have to know the rules, in Wittgenstein's opinion, not only to perform actions through the use of the words but also to understand the words of others appropriately.

Comparing language-games with chess, Wittgenstein believed that one usually shows the pieces (for example, the chess king, the chessmen) to somebody who learns how to play chess and explains the rules of the game to his or her. Even though it is a necessary learning stage, it seems to be a not sufficient one because, in Wittgenstein's belief, to know the true value of the pieces, for example, of the chess king, one needs to really play chess (cf. Wittgenstein 1957 [1953]: 17). Cf. the following quotation:

> When one shows someone the king in chess and says: "This is the king", this does not tell him the use of this piece – unless he already knows the rules of the game up to this last point: the shape of the king. You could imagine his having learnt the rules of the game without ever having been shewn an actual piece. The shape of the chessman corresponds here to the sound or shape of a word. (Wittgenstein 1957 [1953]: 17)

For Wittgenstein, speaking a language is both a game and a form of life. At the same time, a language game is an action into which the individual is interweaved through speaking/using a language. And what follows is thus that the meaning of a word or sentence is a consequence of the rule(s) of the game he is playing in a particular context.

Also, for John Langshaw Austin (1911–1960) and John Rogers Searle (born 1932), the rules governing the use of language in performing speech acts constituted the focus of attention. According to Austin (cf., *How to Do Things with Words*, 1962: 26), doing something by saying something, as in the case of the performative utterances, requires that certain persons follow, in certain circumstances, an accepted conven-

tional procedure, having a certain conventional effect, including the uttering of certain words. To do so, however, the speakers should be able to distinguish types of speech acts on the basis of their structural rules, which determine their meanings, knowing, at the same time, how to structure them. Similarly, Searle (cf. *Speech Acts*, 1969: 64–70, especially 63), who dealt with verbal expressions in terms of illocutionary acts, such as requesting, asserting, affirming, questioning, thanking, advising, warning, greeting, and congratulating, defined the rules that underlie them. He holds that there is a big analogy between games and speech acts. In the case of a game, there are conditions of three kinds which determine, for example, when to move a knight correctly. To be exact, firstly, it must be the player's turn to move (preparatory conditions), secondly, there are the actual positions to which the knight can move (essential conditions), and thirdly, the player(s) cannot cheat, or attempt to withdraw from the game (sincerity conditions). Searle argued that, in general, the same conditions apply to both competitive games and illocutionary acts. One exception is that verbal expressions of illocutionary intentions, representing states of affairs as well, have additionally to follow propositional content rules.

The metaphor of play can be useful for the explanation of the complexity of human communication as social action resulting from the hierarchic organization of meanings conveyed by its participants. W. Barnett Pearce and Vernon E. Cronen admit, in *Communication, Action and Meaning* (1980: 127–128) that, in conversation, meanings can be communicated at multiple levels, especially as people, answering to direct questions mostly give indirect responses. For communication frequently includes metacommunicative messages, its participants (and also its external observers) are normally able to understand/interpret them properly. It is clear that the understanding of such indirect responses, when the messages denote something else than it results from the words of which it consists, is possible in a contextualizing frame.

In keeping with Pearce and Cronen (1980: 210–212), one can say that human individuals may show communicative competence at different levels, and, therefore, metaphorically speaking, be better or worse "players". Thus, there are minimally competent communicators, who know and accept the rules allowing a routine behavior but are not able to form new rules. There are also satisfactorily competent communicators, who, accepting/ acknowledging certain rules, internalize them as their own. And, finally, there are optimally competent communicators, who, not only know the rules of communication but also perceive alternatives to them. Such communicators are able to assess the consequences of the

application of these rules. Viewing communicative events from a distance, optimally competent individuals are inventive and creative as they can predict and control the course of events. As players, they can be characterized after Pearce and Cronen in the following way:

> Play reflects the ability to detach oneself sufficiently from one's performance to experiment or to perceive it simultaneously from several perspectives. Minimally competent persons do not know when to play and cannot control it; they play an the result of unpredictable changes in perspective; Satisfactorily competent persons play when it is socially approved, and optimally competent persons play when they choose. (1980: 210)

A communicative performance, as play at its finest, means thus for the individual the ability to have an external view of oneself in a particular situation. Admittedly, an essential aspect of interpersonal communication understood in terms of play is its metacommunicative function, resulting from the fact that the messages sent by its participants contain as such the information how the receivers should interpret them. Ultimately, however, to find an explanation of the play-related character of communication, it seems proper to take into account some abilities to communicate with individuals, such as self-reflexivity, creativity, etc.

One owes to Eric Berne (1910–1970), a Canadian-American psychiatrist, the creator of transactional analysis, the specific meaning of the term game. In Berne's innovative approach to understanding human behavior, games are negative, maladaptive transactional interactions through which people pursue their hidden goals, usually resulting from various low motives. One has to emphasize that, for Berne, games are sequences of predictable, communicative transactions between individuals, taking place according to a rigid pattern. For the observers, they are seemingly reasonable and faultless behaviors, but they express, as a matter of fact, negative attitudes and hostility of the parties involved towards each other. Therefore, games are the so-called ulterior transaction, which, as Berne claimed, always end with a pay-off, a psychological advantage of one of the individuals. To illustrate Berne's line of reasoning, one could quote his definition of communicative games, coming from his book *Games People Play*:

> A game is an ongoing series of complementary ulterior transaction progressing to a well-defined, predictable outcome. Descriptively, it is a recurring set of transactions, often repetitions, superficially plausible, with a concealed motivation; or, more colloquially, a series of moves with a snare, or 'gimmick'. Games are clearly differentiated from procedures, rituals, and pastimes by two chief characteristic: (1) their ulterior quality and (2) the pay-off. Procedures may be successful, rituals effective, and pastimes profitable, but all of them are by definition candid; they may

> involve contest, but not conflict, and the ending may be sensational, but it is not dramatic. Every game, on the other hand, is basically dishonest, and the outcome has a dramatic, as distinct from merely exciting quality. (Berne 1969 /1964/: 44)

What one has to add is that, in transactional analysis, not only the words, individuals speak, are taken into account. The interpretation of true intentions of communicating individuals entails also considering the nonverbal clues, especially the tone of voice of the speakers, their facial expressions, as well as the movements of their body. As a psychiatrist, Berne (1969 /1964 /: 61–147) managed to identify and describe numerous games played by his patients, proving, this way, that there are detectable regularities in human behavior. His merit was thus to present the dynamics of human relations in terms of psychological games.

3. Play and art in symbolic forms of culture

Focusing on man as an acting subject whose existence, combining psychophysical and social dimensions, gives him the power to go beyond himself thanks to his symbolic activity, Ernst Cassirer (1874–1945) created his theory of culture as a system of symbolic forms. His interest in symbols and symbolism found expression first in his three-volume work *Philosophie der symbolischen Formen* (1955 [1923–1929]), the main ideas of which he summarized in his book of 1944 written in English *An Essay on Man*: *An Introduction to a Philosophy of Human Culture* (cf., separately, Cassirer, 1995. *Symbolische Formen*. Zu Band IV (Originalmanuskript 1929).

Cassirer's theory of culture reinforces his view about human cognition, possible only through mental representations. It is an innovative interpretation and extension of Immanuel Kant's (1724–1804) rationalist approach to human knowledge, assuming the existence of universal and objective forms and categories, preceding the acts of cognition, not the individual and subjective ones. As has been argued by Bolesław Andrzejewski (cf. *Animal symbolicum*, 1980: 172–174), one has to acknowledge as Cassirer's merit his awareness of the *a priori* character of the activity of the human subject (or man as a whole and unity) that manifests itself in various forms of human activity.

Cassirer does not make much use of the notions of play and game, even though his way of thinking shows the significance of symbolic communication in the world of humans, as well as the role of culture, as a space of all human experience, in the formation of human personality and self-actualization. Therefore, particularly worth considering is Cassirer's conception of man as a corporeal (bio-psychical) being that shapes

cultural reality, creating cultural values. For Cassirer, living in a world of culture as the world of objectified values, man experiences and internalizes values and norms of which this reality consists, sustaining it in this way. Believing that the subjectivity of man manifests itself in the products of his activity, one has to emphasize, in keeping with Cassirer's reasoning, that, thanks to culture, not only human experiences are based on values, determining the quality of human life. Culture, for Cassirer, not only forms the environment in which man lives but allowing him to shape life attitudes, by enriching his existence through giving value to his life, it also facilitates man an insight into himself.

From the position of natural sciences, especially biology, Cassirer (1962 /1944/: 24) notices that human life and the human world are characterized by the fact that man exceeds, through his thinking activities, the boundaries of the organic life. Cassirer describes the human world as a symbolic world, consisting of symbolic forms, such as myth, language, art, religion, history, and science, in terms of their function of an intermediary between man and the reality, maintaining that:

> No longer in a merely physical universe, man lives in a symbolic universe. Language, myth, art, and religion are parts of this universe. They are the varied threads which weave the symbolic net, the tangled web of human experience. All human progress in thought and experience refines upon and strengthens this net. No longer can man confront reality immediately; he cannot see it, as it were, face to face. Physical reality seems to recede in proportion as man's symbolic activity advances. Instead of dealing with the things themselves man is in a sense constantly conversing with himself. He has so enveloped himself in linguistic forms, in artistic images, in mythical symbols or religious rites that he cannot see or know anything except by the interposition of this artificial medium. His situation is the same in the theoretical as in the practical sphere. Even here man does not live in a world of hard facts, or according to his immediate needs and desires. He lives rather in the midst of imaginary emotions, in hopes and fears, in illusions and disillusions, in his fantasies and dreams. (1962/1944/: 25)

As follows from Cassirer's argument what bothers man are not the things themselves but his opinions and beliefs about these things. To more accurately explain this point, one has to trace some ideas presented by him in his works devoted to human nature.

Thus, in his essay on the philosophy of symbolic forms, Cassirer (1962 /1944/: 67–68) has attempted to prove that a distinguishing characteristic of man is his work, that is, the system of human activities definable in terms of the circle of humanity the constituents of which are just language, religion, art, science, and history. According to Cassirer, only an analysis of particular stages of this circle, forming, in fact, an integrated whole, can give an insight into the structure of any human

activities as determined culturally, especially if such an examination takes into account their functions in relation to the individual and society. In other words, Cassirer proposes to search for the basic function of speech, myth, art, of religion "behind their innumerable shapes and utterances", to ultimately deduce about their common origin in relation to man.

Among the symbolic forms, through which man, crossing the boundaries of organic life, builds his own world, defined by Cassirer, it is proper to focus here on language and art. For Cassirer (1962 /1944/: 109), language is a semantic and symbolic representation of reality. Moreover, Cassirer (1962 /1944/: 129) is inclined to acknowledge all forms of human speech to be perfect means of expression of feelings and thoughts of man and, as such, of human communication. One has thus to agree with the view of the originator of the concept of symbolic forms, namely, that any interests of scholars in the nature of human speech significantly contributed to a better and better understanding of the nature and development of the human mind. According to Cassirer (1962 /1944/: 131–132), an exceptional ability of man is that he understands the symbolism of speech. Importantly, this ability develops already in childhood when the individual learns to form concepts of objects in the extralinguistic reality, to cope with the objective world. To characterize the social role of language/speech in the initial phase of the child's development, he present his conviction about it as follows:

> Henceforth the child stands on firmer ground. His vague, uncertain, fluctuating perceptions and his dim feelings begin to assume a new shape. They may be said to crystalize around the names as a fixed center, a focus of thought. Without the help of the name every new advance made in the process of objectification would always run the risk of being lost in the next moment. The first names of which a child makes conscious use may be compared to a stick by the aid of which a blind man gropes his way. And language, taken as a whole, becomes the gateway to a new world. All progress here opens a new perspective and widens and enriches our concrete experience. Eagerness and enthusiasm to talk do not originate in a mere desire for hearing or using names; they mark the desire for the detection and conquest of an objective world. (Cassirer 1962 /1944/: 132)

Thus, Cassirer shows the importance of speech for the mental growh of the child. He claims that, in the beginning, it is the arbitrary sounds, viz., the words of the language that have an overwhelming influence upon its mental constitution (its psyche). Therefore, each normal child at the age about the twenty-third month is featured by the "hunger of names', which it learns with passion. Acquiring them, the child gradually becomes disconnected from actual biological conditions. Needless to say that, according to Cassirer, the development of other symbolic forms

would be impossible without language as a system of vocabulary and abstract grammatical rules.

As to art, in turn, Cassirer claims that its practices slip out of linguistic conceptualization. Hence, the forms presented by artists do not correspond to linguistic concepts. In Cassirer's (1962 /1944/: 137) conviction, art is created by those individuals who are capable of going beyond the realm of sensual experience through intuition and reverie, or contemplation.

Art as a symbolic form is, according to Cassirer, a sphere of pure forms, and, in this sense, a language of a peculiar kind. The works of art can be understood merely by individuals who are sensitive to aesthetic values, especially beauty. Thanks to the contact with the pieces of art, the individual gains not only the opportunity of aesthetic experiences but also of reaching aspects of reality not available otherwise. Though not every man is able to interact with art in the same way, artistic creativity lies in his nature, which, as Cassirer put it, "displays itself in activity as soon as his existence is secure" (1962 /1944/: 140).

Regarding the play itself, Cassirer (1962 /1944/: 165–167) admits that the theory which derives art from it (from play) has developed in two extremely different directions between which there are no points of contact. Exactly, on one side, there are the views of Friedrich von Schiller (1759–1805), a German poet and philosopher, an advocate of a transcendental-idealistic theory of play and, on the other, the views of Charles R. Darwin (1809–1882), an English biologist, and Herbert Spencer (1820–1903), an English philosopher, supporters of naturalist and biological theories of play. In truth, accepting Schiller's understanding of play as a specifically human activity, not a general feature of the living world, Cassirer himself defines it as a unique ability of the man immersed in his culture. Being convinced that the human faculty for play is essential to cognition that takes place through all the symbolic forms, Cassirer claims that, in fact, each human being is fitted to/can feel the pleasure of playful activities. This applies also to the scientist who, "[i]n face of the immensity of nature", probably often may have the feelings of amusement and delight, and think of himself he "were like a child who walks along the shore of an immense ocean and amuses himself occasionally picking up a pebble whose shape or color attracts his eyes" (Cassirer 1962 /1944/: 220).

All in all, sociability and subordination to culture are, for Cassirer, the most characteristic features of the man, which manifest themselves in the collective consciousness of human societies. Accordingly, summarizing his considerations, he states:

> But in the case of man we find not only, as among animals, a society of action but also a society of thought and feeling. Language, myth, art, religion, science are the elements and the constitutive conditions of this higher form of society. They are means by which the forms of social life that we find in organic nature develop into a new state, that of social consciousness. Man's social consciousness depends upon a double act, of identification and discrimination. Man cannot find himself, he cannot become aware of his individuality, save through the medium of social life. But to him this medium signifies more than an external determining force. Man, like animals, submits to the rules of society but, in addition, he has an active share in bringing about, and an active power to change, the forms of social life. But the farther we proceed the more explicit and significant this feature becomes. This slow development can be traced in almost all forms of human culture. (Cassirer 1962 /1944/: 223)

What is more, Cassirer holds that man, as a creator of culture, has discovered a way of preserving his works and passing them on from generation to generation. So, it seems meaningful to state here, after Cassirer (1962 /1944/: 228) that human culture is the process of man's progressive self-deliberation from the forces of nature. In language, art, religion, science, as the various phases in this process, the man discovers and develops his power to shape his own ideal world.

4. The role of play in art as a modelling system

Both art and play, as well as dependencies between them, were also in the focus of the interests of Yuri Mikhailovich Lotman, the founder of the Tartu–Moscow Semiotic School. For Lotman, however, the overarching concept was that of the modelling system, understood by him, as a system of rules by which a cognitive representation of reality arises. According to Lotman, modelling, being an aspect of semiosis, underlies the functioning of any semiotic system. While using the term fundamental to Lotman's semiotics, the primary modelling system, is, for humans, the natural language (cf. 1977 [1974]).

In fact, Lotman's conception of modelling systems complements, in some sense, Cassirer's theory of symbolic forms as constituents of the symbolic world of man. While Cassirer pondered upon symbolic aspects of human cognition and communication, Lotman considered two levels at which cognition takes place. Respectively, Lotman discussed semiotic modelling systems, the primary and secondary ones, already in his article "The place of art among other modelling systems" (2011 [1967]). For him, art, as a tool of human cognition, has to be acknowledged as the secondary modelling system by which humans re-create reality and life by specific means. In Lotman's view, art is not the same as the play. Ac-

knowledging play an essential element of art, Lotman pays attention to its features and aspects, including its role in artistic modelling. To follow his argumentation concerning art and play, one has to clarify the main terminological distinctions he uses.

In particular, Lotman (2011 [1967]) contrasts art, calling it a play-type model, with real-life situations. Moreover, he shows differences between two semiotic processes, though which real life is modelled in cognition. Just these processes are, to him, language, the primary modelling system, and art, the secondary modelling system. As the products of the semiotic processes, Lotman treats respectively (1) verbal texts and (2) works of art, claiming that there are different rules, which operate in the formation of each of them.

At this point, Lotman's reasoning is worth a detailed recapitulation. To wit, giving examples from literature, especially the literary drama, Lotman (2011 [1967]: 252–258) defines play itself in the following way. Firstly, play is not the opposite of cognition but a prerequisite for it. Secondly, play originates in the natural needs of the human psyche, but its forms have changed with the evolutionary development of humans. Thirdly, play, as such, belongs even to the most important tools for controlling different real-life situations and learning different forms of behavior of humans and higher animals. Fourthly, play facilitates the modelling of situations – in the mind of the players – especially those, which are difficult, formidable, and/or dangerous to life, etc. Fifthly, play imitates some features of reality, applying thereby its own rules. Sixthly, being different from both the practical behavior and the behavior based on models of the cognitive type (viz., the behavior using scientific-cognitive models), play, as "playful" behavior, is rather the simultaneous realization of these two kinds of behavior than their succession in time. (Hence, the player has always to remember that they are participating in an activity, having both a practical and a conventional aspect. Otherwise, that is, in the case that the conventional behavior dominates over the practical one, and, accordingly, the individual(s) take(s) the game for real, their action, losing its connection to reality, becomes pointless.) Seventhly, the social significance of play is that the same stimulus, simultaneously conditioning two reactions, and evoking two different behavior structures, carries different meanings. (To use Lotman's words, play shapes, literally, "models randomness, incomplete determination, the probability of processes and phenomena" (cf. 2011 [1967]: 256). Eighthly, play, as a theatrical performance, combines regular and random processes in this sense that each of its elements, one could say, moves, "has a double meaning, serving as a confirmation of a rule on one level and a

deviation from it on another" (cf. 2011 [1967]: 256). Ninthly, "[i]n relation to a logical model homomorphic to it, a play-type model is not perceived through the antithesis, 'true – false', but as a 'richer – poorer' (both of them true) reflection of life" (cf. 2011 [1967]: 257). And finally, art, viz., a play-type model that mostly emerges intuitively, allows, thanks to play as its constituent, the usage of the multivalent logic to the evaluation of the facts of social life.

Referring to the game theory developed by mathematicians, Lotman (2011 [1967]: 258–260) points out that it is applicable not so much to conflict situations, as their creators believed, but rather to play-type models of conflict situations as equivalent representations of real conflicts. Comparing the real-life situation with a play-type model, corresponding to it, Lotman notices that, in a game (being a play-type model), one can explain a game state (or move), using the rules of the game that have transformed the situation into this particular state, that is, in more deterministic terms. Yet, in real life, so many restrictions are imposed on each existing situation that it (can) transform(s) only into one consequent situation. Hence, he considers real-life processes less deterministic. Moreover, paying attention to the player in a play-type model, Lotman notices that they always have the possibility to choose between alternatives. Players, as Lotman continues, also act in a situation when time, treated conventionally, is characterized by reversibility, especially as there is usually a possibility to 'replay'. Lotman's important observation is that "the same event in a game situation" usually has "a different information value than in a life situation". For example, a playwright can set periods of time between the acts, or segment the scenes in his drama at his own discretion. Then, as Lotman (2011 [1967]: 259) argues, "the choice of a 'move' from among all the possible moves becomes highly informative". The question, "Why did a year go by?" which is meaningless in a real-life situation, acquires, according to Lotman, deep meaning in any play-type model of this situation. This is proof that seemingly the same events may have different meanings/values in a real-life situation and in a play-type model of a situation.

Moving on to characteristics of art in terms of play-type models, Lotman (2011 [1967]: 260–261) remarks that both the creation and perception of a work of art entail behaving in a playful way. Indeed, artistic behavior requires a dual-action, or, in other words, two different actions at the same time. The creator and recipient of art experience the emotions that also analogous real-world situations would arouse, being aware that they do not need to perform actions related to similar situations in real life (for example, to help out the hero). As one could thus

say, after Lotman, their behavior combines the practical with the factitious.

In keeping with Lotman, one must assume that the natural language models reality, but modelling does not stop at the level of the organization of texts according to the rules of grammar. At a higher level, that is, through play-related rules, based on the intentional activity of individuals, some verbal texts become artistic texts. One has to remember that there are, as illustrated by Lotman (2011 [1967]: 261–264), different kinds of texts. For example, scientific treatises, featured by unambiguity, are usually an interpretation of general laws, and, as such, models of abstract ideas. Texts, in turn, called by Lotman ecclesiastical-rituals, are mostly organized on the principle of multi-layered semantics. That is to say, even though they convey different meanings at "different structural-semantic levels", the intended meanings of the ecclesiastical-rituals are accessible only to those readers who are prepared to receive these texts at a certain level of sanctity and devotion, and, accordingly, inaccessible to other readers. Lotman (2011 [1967]: 264) notices that an ecclesiastical-ritual text has only one meaning for the reader because "[w]hen a new semantic level 'opens up' before" him, "the old one is discarded because for him, it no longer contains the truth". And finally, artistic texts, unlike scientific treatises and ecclesiastical-ritual texts, concurrently have multiple different meanings because they as wholes, as well as each of their detail, are/is, in Lotman's words, "a part of different systems of relations" ([1967] 2011: 264).

As clearly results from Lotman's argumentation, play and art have some common traits. In particular, offering the conditional solution of situations, they allow to understand the world "[b]y exchanging the immensely complicated rules of the reality for a simpler system". This way, both play and art are "psychologically present following the rules of the given modelling system as solving a real-life situation". As such, play and art are "not only (gnoseologically) means of perception but also (psychologically) means of recreation". Although they (play and art) "provide solutions, which are psychologically absolutely necessary for a man", in no way, one can say that art is play (quoted and cited after Lotman (2011 [1967]: 264). To summarize Lotman's line of reasoning, one has to state that life consists of activities, one of which is the play performed according to certain rules. Art, however, is an imitation of (modelling) the world life, the aim of which is the understanding of world/life. As Lotman ([2011 [1967]: 265) concludes, "the goal of play is following the rules" while "[t]he goal of art is the truth, expressed in the language of conventional rules". Moreover, the play never becomes a means of stor-

ing information and developing new meanings (it only serves as a way to master skills that have already been acquired), which, nevertheless, is what constitutes the essence of art. According to Lotman, nor one can acknowledge art to be a form of play, though the elements of play exist both in the behavior of the creator and, in a different manner, of the audience. Ultimately, Lotman (2011 [1967]: 268) firmly opposes scientific models as means of perception that, in some way, organize the intellect of the human individual to play-type models that, organizing their behavior, have a schooling function. As Lotman 2011 [1967]: 269) has proved, playful elements, which are always present in art, contradict with "the notion of its social effectiveness", while the play itself "is one of the means of transforming an abstract idea into behaviour, into reality". When compared to art, play is, for Lotman, "without content", whereas "science is without effect." The significance of play-type models in cognition is thus that, from their combination with scientific models, artistic models arise that concurrently organize both the intellect and behavior of human individuals.

5. Conclusions about man's powers to play/game

All these understandings of human play as a specialized form of behavior are actually related to the fact that man is a social being, endowed with self-awareness and language. Play- and game-related rules govern communication at different levels when messages are passed on, being still reinterpreted by its participants with a view of different layers of meanings they potentially bear. Therefore, focusing on human individuals communicating with one another in different domains of social life, one has to be aware that their playfulness facilitates them the development of both their capacity for expressing individual, subjective meanings depending on situational and cultural contexts and their ability of intersubjectivity, or sharing subjective experiences among one another.

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Playing as a lived experience of epistemological pleasure

ABSTRACT. Alluding to "the play of musement", this chapter reviews the concepts of 'knowledge/knowing', mathesis 'ordering' and mathetics 'learning' in relation to semiosis 'sign-meaning-production/signification'. Therefore, it confronts the theory of generalized knowledge about cosmic reality with the individualized knowledge acquired by cognizing organisms in their adaptation to changeable and variable surroundings. Against the distinction between mathesis as the science of order and mathetics as the science of learning, the author puts forward a semio-mathetic view of the humans as meaning-creating and meaning-discerning or meaning-learning and meaning-utilizing subjects who not only acquire their knowledge about the real world but also form their private worldviews via semiotic categorization of cognized objects. Hence, the conviction about the existence of one objective world studied by scientists is counterpoised against the statement about the occurrence of a multiplicity of subjective worlds which are experienced, constructed and imaginatively altered in everyday life. Exposing the semiotic activity of cognizing subjects as pleasure of playing with the images of reality, or as a pleasure-oriented ordering of learned worlds beyond the signs, along with the worlds of functional tools and valuable goods of culture, the author postulates to consider, for the sake of further studies, the conceptions of those philosophers of mind and nature whose thought had been affected by the critics of pure experience in opposition the critics of pure reason.

KEYWORDS: play and game, mundane phenomenology, knowledge and knowing, pleasure and gratification, reality and world

1. Epistemology – the theory of knowledge or knowing

The subject matter of epistemology, having in its investigative domain *episteme* meaning 'knowledge' (Greek ἐπιστήμη 'knowledge', derived from the verb ἐπίσταμαι, first-person singular indicative 'to understand', 'to know', 'to be aware of', where ἐπί 'fitting on' plus ἵστημι 'stand' signifies *standing upon*, i.e., gaining knowledge by sustained acquaintance (cf. Random House Webster's College Dictionary 1992], constitutes the question whether its theory should focus on static or rather on dynamic consequences of cognizing and learning interests of human subjects, which take place through the mediation of signs, defined henceforth as semio-mathesis.

It is, therefore, relevant to confront the epistemology in a rationalists' sense, which summarizes the systematizing efforts of scientists to

achieve exhaustive, consistent and reliable knowledge about reality through sensorial observations and intellectual apprehension with the epistemology in a empiricists' sense, which pertains to the states and conditions of knowing, as a theory of attainment or acquisition of knowledge realized through exploring and acquiring activities of average cognizing subjects (cf. Wąsik 2017: 155–170).

In the first frame of reference, epistemology is placed on the level of the sciences of science as "an ordered set of investigative perspectives, which the practicing researchers have at their disposal when they are interested to possess a specific state of objective knowledge, or to support their beliefs about the nature of investigative domains with regard to the existence modes and accessibility of investigated objects" (see Wąsik 2016b: 23). Conversely, in the second understanding, the topic of treatment comprises a delusion-oriented understanding of epistemology pertaining to psychophysiological aptitudes of human organisms that aim at achieving a trustworthy non-fallacious portion of information about observable reality through sensorial and mental activities.

Considered on a metascientific level, epistemology constitutes, as defined by the author of this paper (Wąsik 2016a), a theoretical discipline interested in the questions of the cognition itself, what are the contents of a cognizing mind and what are the ways and limitations of cognizing powers of man. It is thus "a branch of philosophy studying the nature and grounds of knowledge with regard to scopes and functional validity of investigative approaches used in particular scientific disciplines for determining their subject matter" (cited and quoted by Wąsik 1916a 56, 2016b: 24, and 2017: 157).

The study of epistemological positions is based on the conviction that the choice of a given investigative approach stipulates the scientists' outlook upon conceptual and operational tools leading to the formulation of investigative postulates. On a metascientific level, the choice of an epistemological orientation means the choice of an appropriate investigative perspective determined by both the accepted tasks of investigation and the nature of the investigated object (Wąsik 2017: 157).

To appreciate the whole system of investigative perspectives characterizing particular branches of science, it would be necessary to elaborate a typological matrix subsuming all actual and potential standpoints, doctrines, beliefs, or directives of study, and the like, which have found their reflections in a given concept or a certain theory of the investigative object (cf. Wąsik 2017: 159). Seen, however, from the viewpoint of psychophysiological aptitudes, the epistemology of human organisms acquiring and communicating information, which exposes the unpredictability of

human brain-and-mind powers and the solipsistic character of learning and knowing processes, will be summarized here on the basis of Gregory Bateson's work (1987 /1972/ [1942], 1951, 1987 /1972/ [1953], 1987 /1972/ [1955], 1987 /1972/, and 1979). Departing from Bateson's view that any epistemology resulting from cognition is a personal thing (1979: 31), one can agree that the knowledge acquired in the personal cognition is always subjective. As a result, this knowledge can have an intersubjective character only through the mediation of interpersonal communication. In the interpersonal communication, there are always discrepancies between epistemologies of its participants who depart from diverse viewpoints, as stated by Bateson: "The same, we believe, is true of epistemologies: that if A wishes to study the epistemology of B, he can do so only if his own epistemology differs from that of B to such an extent that he is driven to some awareness of his own and of B's premises" (1951: 229).

Psychophysiological epistemology pays attention to cognitive faculties of human minds to receive information in the form of perceivable differences and consequently to the systematization of the world through comparisons of new objects following the principle of similarity patterns. According to Bateson "perception operates only upon difference", and consequently "all perception of difference is limited by threshold" (1979: 29). There is a certain interdependence between acquired knowledge and those tools by means of which this knowledge is acquired. According to Bateson (1979: 29): "Knowledge at any given moment will be a function of the thresholds of our available means of perception", which leads to the character of science as a method of gathering data through collective observation. In his assessment "As a method of perception-and that is all science can claim to be – science like all other methods of perception, is limited in its ability to the outward and visible signs of whatever may be truth".

2. The pleasure of playing games in the learning and ordering of the world through signs – towards an idea of semio-mathesis

Introducing the notion of semio-mathesis for methodological purposes, this subchapter will allude firstly to the science of learning known since the Greek Antiquity as mathetics, currently laying in the interest sphere of, *inter alia*, psychologically minded pedagogy, and secondly to the science of ordering or subcategorizing of things in reality. The term *mathetics* had been coined by Joannis Amos Comenius as the counter-

part of *didactics*, the science of teaching. As Comenius (1680: 1) explained it in detail: Mathetica es ars discendi … Discere est rem scire quaerere vel, est rerum scientiam (cognitionem) quaerere 'Mathetics is the science of learning … Learning is searching for knowing the thing or, is searching for the knowledge (cognition) of things'.

A similar term *mathesis* had been used following the tradition of Anglo-Norman philosophy, by Michel Foucault, in his work *The Order of Things*, "mathesis, understood as a universal science of measurement and order" (1970 [1966]: 55; "the relation of all knowledge to the mathesis is posited as the possibility of establishing an ordered succession between things, even non-measurable ones" (1970 [1966]: 57). As he adds: "When dealing with the ordering of simple natures, one has recourse to a mathesis, … When dealing with the ordering of complex natures … one has to establish a system of signs. These signs are to the order of composite natures what algebra is to the order of simple natures" (Foucault, 1970 [1966]: 71).

Thus, for applying the concept of semio-mathesis to learning as the ordering of knowledge about the world through the process of its acquisition, it is worth citing the opinion of Gregory Bateson (1951: 237) that there are discrepancies among particular schools of thought as regards the relationship between world and reality. Accordingly, the world may be described after Bateson: (1) as a category of observables in opposition to mental phantasies, (2) as a social construct according to which the interpretation of reality is determined by dissimilar viewpoints in different cultures, (3) as a set of ordered things and states of affair in the personal perception of reality acquired through observation and formulated through mental propositions, (4) as a kind of living through and coping with the world of phenomena on the basis of pleasure and gratification, (5) as a pre-given factual world based on communication in opposition to the artificially created magical world based on rituals (1951: 239–242).

Relevant for the purposes of this paper is Bateson's understanding of reality as playing with the world image for pleasure gratification, deducible from the following statement (1951: 240–241):

> The word "reality" is used in a fourth sense which is only indirectly and by inadvertence associated with the first three. This sense appears commonly in the phrase "the reality principle," which "principle" is commonly contrasted with "the pleasure principle," giving to the word "reality" a special evaluational flavor of discipline or unpleasure. Here the term "reality" slips from referring to that which exists or that which is perceived, and comes to refer to a world of values.

How the concepts of play and game intermingle is best visible in Bateson's metalogues, a sort of imagined dialogues between a father and his daughter. Representative is here the third metalogue (Bateson 1987 /1972/ [1953]), namely the conversation which begins with Daughter's questions. "Daddy, are these conversations serious?" and "They're not a sort of game that you play with me?" (Bateson 1987 /1972/ [1953]: 24). In this metalogue, Bateson argues by providing the Father's answer that: "a conversation is a game if a person takes part in it with one set of emotions or ideas—but not a 'game' if his ideas or emotions are different." (1987 /1972/ [1953]: 27). Comparing thus the conversation to a game in which participants play with ideas, he assumes that they do so "in order to understand them and fit them together … in the same sense that a small child 'plays' with blocks" (Bateson 1987 /1972/ [1953]: 27]). What is more, he says: "I think a child playing with blocks has rules. The blocks themselves make a sort of rules. They will balance in certain positions and they will not balance in other positions." (Bateson 1987 /1972/ [1953]: 28). While saying that "the purpose of these conversations is to discover the 'rules', Bateson submits the view in Father's words that: "It's like life – a game whose purpose is to discover the rules, which rules are always changing and always undiscoverable … It's more like what kittens and puppies do." (Bateson 1987 /1972/ [1953]: 30).

In his deliberations on the play and learning with reference to the logical truth in communication, Bateson claims that "the evolution of play may have been an important step in the evolution of communication", as far the exchanged messages or signals among communicating subjects do not denote what they stand for. Interacting organisms "are usually communicating about something which does not exist" (1987 /1972/ [1955]: 188). In his opinion, the domain of non-realistic fictional communication is just the "region where art, magic, and religion meet and overlap", as far as there are "two peculiarities of play: (a) that the messages or signals exchanged in play are in a certain sense untrue or not meant; and (b) that that which is denoted by these signals is nonexistent" (Bateson 1987 /1972/ [1955]: 188–189). Recapitulating his thought Bateson states furthermore that "The discrimination between 'play' and 'nonplay,' like the discrimination between fantasy and nonfantasy, is certainly a function of secondary process, or 'ego.' Within the dream the dreamer is usually unaware that he is dreaming, and within 'play' he must often be reminded that 'This is play'" (Bateson 1987 /1972/ [1955]: 190).

For employing the conception of semio-mathesis to the knowledge acquisition, it seems appropriate to put back together with the theoreti-

cal positions of Gregory Bateson towards learning, which commenced as early as in the 1940s and were continued in the 1970s. Working within the framework of behaviorism, prevailing at that time, Bateson initially distinguished two types of learning, called simple learning and Gestalt learning. In simple learning, denoted as "proto-learning", "the subject is learning to orient himself to certain types of contexts, or is acquiring 'insight' into the contexts of problem solving" (Bateson 1987 /1972/ [1942]: 173). Whereas Gestalt learning, seen as "learning to learn", is equated by Bateson, "with acquiring apperceptive habits", as a kind of deutero-learning (quoted and cited after 1987 /1972/ [1942]: 176).

Summarized under four types of the acquisition of knowledge, Learning I, II, III and IV are defined as follows:

(I) the first-order learning, i.e., "habitual learning", when the relationships between two (or more) organisms are based on stimulus–response conditionings evoking indulgence or avoidance strategies;

(II) the second-order learning, i.e. "learning to learn", where the organisms can correct or change their responses knowing how to choose between alternatives while obtaining information about the conditional patterns of contexts in which the past first order learning, in sequences of experiences, has occurred; and, finally,

(III) the third-order learning, i.e., "learning to learn to receive signals", where there is the "transference" of viewpoints from one participant to another causing the change in his or her expectations about the structure of their, hitherto pathogenic, convictions, for example, in the psychotherapist–patient relationship, imitating as such the image of parent–child relationships from the upbringing times.

As to fourth-order of learning, Bateson (1987 /1972/: 298) supplements that "Learning IV would be change in Learning III, but probably does not occur in any adult living organism on this earth. Evolutionary process has, however, created organisms whose ontogeny brings them to Level III. The combination of phylogenesis with ontogenesis, in fact, achieves Level IV."

3. Semiosis as a play of musement with the images of reality

The commonly known expression "the play of musement" coming from Charles Sanders Peirce's "A neglected argument for the reality of God" (1908), found its metaphorical application in the works of Thomas Albert Sebeok (cf. the title of 1981). Sebeok's research into the "life of signs" has been coupled with his reverted apprehension as the "signs of

life" with the assumption that "semiosis is the criterial attribute of life" (1991 /1979/: 124).

Metaphorically taken, Sebeok understood semiosis in terms of play and the human propensity for fantasizing and daydreaming. He made it equal to such operations as predicting the future or traveling through the past, thereby constructing, and reconstructing reality, or inventing new worlds and interpretive models, or even deceiving, making illusion and prevaricating (It is worth making reference to a detailed discussion of this topic including also a more extensive block quotation by Susan Petrilli 2013: 39–40).

Making an allusion to John Locke's original title (1975 /1690/) and Charles S. Peirce's (1935 /1908/) belief about the spontaneous inclination or manipulative tactic of the human mind to an inner-directed process of meaning production in a daydream or musing form, Sebeok assumed, in his chapter devoted to "The semiotic self", that:

> Semiotics in an exclusively human style of inquiry consisting of the contemplation – whether informally or informalized fashion – of semiosis. ... Semiotics ... simply points to the universal propensity of the human mind for reverie focused specularly inward on its own long-term cognitive strategy and daily maneuverings. Locke designated this quest as a search for "humane understanding"; Peirce, as "the play of musement". (Sebeok 1991 /1979/: 97)

More popular is the definition of semiosis established by Sebeok in the glossary of his introduction to semiotics, as the "capacity of a species to produce and comprehend the specific types of models it requires for processing and codifying perceptual input in its own way" (2001 /1994/: 156). Worth exposing here is also Sebeok's proposal for the separation of five "(super)kingdoms" or rather investigative domains, dealing with the semiosis in, or semiotics of, bacteria, fungi, plants, animals and man, in which "distinct but intertwined modes of semiosis have evolved" (Sebeok 1997: 440; For a detailed discussion and bibliography see Kull 2003: 53).

4. Outlining the worldhood concept to get the picture of the existential modes of human living in reality or constructing the reality versus being in reality or living through the reality

The concept of worldhood has been developed in subsequent discussions of phenomenologists. Even that the notion of phenomenology goes back to the times of Immanuel Kant (*Critique of Pure Reason*, 1883 [*Critik der reinen Vernunft* , 1781]) and Georg Wilhelm Hegel (*Phenomenol-*

ogy of Spirit, 1977 /*Phenomenology of Mind*, 1910/ [*Phänomenologie des Geistes*. Fünfte Auflage, 1952 /*System der Wissenschaft. Erster Theil, die Phänomenologie des Geistes*, 1807/]), the current paradigm of phenomenology starts from Edmund Husserl.

What Husserl proposed, in his lectures held at Prague in 1935 and Vienna in 1936, *Die Krisis der europäischen Wissenschaften und die transzendentale Phänomenologie. Eine Einleitung in die phänomenologische Philosophie*, published for the first time in 1954 and translated into English as *The Crisis of European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy* in 1970 was the study about appearances of perceptible lifeworld objects in human experience.

Having had inquired into the ways how human individuals experience and describe, in the first-person perspective, the meanings of objects their lifeworld, Husserl distinguished three kinds of phenomenology namely, transcendental, existential, and mundane (Germ. *Lebenswelt* 'lifeworld') phenomenology.

As one can infer from Husserl's reasoning, the phenomenological conception of world connotes not only a dualistic split between empirical and rational facts, encompassing as such two distinct worlds, the world of nature and the psychic world (1956 [1970: 60]), but also generates "a psychophysical anthropology in the rationalistic spirit" (1956 [1970, 62, cf. quoted and cited by Wąsik 2018: 128).

Following Husserl's interpretation, the phenomenological conception of the world overcomes the hitherto prevailing opposition between empiricism and rationalism, to that extent that it includes simultaneously the spiritual world, the ideal world, and the lifeworld (cf. Husserl 1954 [1970]: 62). The *Lebenswelt*, constituting the domain of mundane phenomenology, is the world in which people live together, about its existence they are conscious, and to which they belong.

To the most quoted and discussed belongs the following definition of *Lebenswelt* that Husserl, inaugurated in his lectures of 1935–1936:

> In whatever way we may be conscious of the world as universal horizon, as coherent universe of existing objects, we, each "I-the-man" and all of us together, belong to the world as living with one another in the world; and the world is our world, valid for our consciousness as existing precisely through this "living together". (Husserl [1970 [1954]: 108]; cf., quoted & cited, Wąsik 2018: 128)

Thus, Husserl's idea of the 'lifeworld' requires a more accurate concern of human subjectivity and objectivity, when considering that "to live" constantly means "to live-in-certainty-of-the-world".

As Husserl assumes, waking life is being awake to the world, being constantly and directly conscious of the world and oneself as living in the world, actually experiencing, or living-through [*erleben*] and actually effecting the ontic certitude of the world. By this means, the world is pregiven in a way in which individual objects are always given. Still, there exists a fundamental difference between the way one is conscious of the world and the way one is conscious of its objects (as constituents of the lifeworld), though together the two make up an inseparable unity (Husserl 1954 [1970: 142–143]; cf. Wąsik 2018, quoted & cited 129).

In the extended versions, there are also other orientations in phenomenology, elaborated by Max Van Manen on *Phenomenology Online. A Resource from Phenomenological Inquiry,* who put forward the following distinctions: transcendental phenomenology, existential phenomenology, hermeneutical phenomenology, linguistical phenomenology, ethical phenomenology, and phenomenology of praxis.

The existential relationship of the human subject with the world in which he lives should especially be brought to light on the basis of Heidegger's works with special reference to *Being and Time*. 1962 [*Sein und Zeit,* 1927], "On the essence of ground", 1998 ["Vom Wesen des Grundes", 1929] and *The Fundamental Concepts of Metaphysics: World, Finitude, Solitude*, 1995 [*Die Grundbegriffe der Metaphysik: Welt – Endlichkeit – Einsamkeit,* 1983]).

As Heidegger noted in 1929, *Sein und Zeit* constitutes the second of three different approaches to the problem of the world (see Heidegger 1995 [1983]: 176–177). The first approach, in "Vom Wesen des Grundes" (1998 [1929]), deals with the historical development of the word and the concept of the world.

The second one, in *Sein und Zeit* (1926–1927), addresses "the phenomenon of world by interpreting the way in which we at first and for the most part move about in our everyday world" (see Heidegger 1995 [1983]: 177]), and the third approach, discussed in its turn in *Die Grundbegriffe der Metaphysik: Welt – Endlichkeit* (1929–1930), is based on a "comparative examination" of man, animals, plants and stones (see Heidegger 1995 [1983]: 177).

What makes *Sein und Zeit* distinctive is its emphasis on the world not as a concept but as a phenomenon (*das Weltphänomen*). A phenomenon describes something that becomes "manifest" and "shows itself in itself" (Heidegger 1962 [1927]: 28–29]). Thus, the world as a phenomenon should give us the world itself. As Heidegger explains, his attempt was "to provide a preliminary characterization of the phenomenon of

world by interpreting the way in which we at first and for the most part move about in our everyday life" (Heidegger 1995 [1983]: 177]).

Following Heidegger's path of reasoning, how he approaches the world from the vantage point of *Dasein*, as being-in-the-world, we might, therefore, grasp the phenomenon of the world: "That which is so close and intelligible to us in our everyday dealings is actually and fundamentally remote and unintelligible to us" (Heidegger 1995 [1983]: 177]).

What Heidegger addresses in his third approach are thus the three concepts, namely 'world', 'finitude', and 'solitude', which form a unity. The discussion of animality must, therefore, be contextualized as belonging to this broader analysis of metaphysics and the essence of man.

Without a doubt, Heidegger's famous tripartite thesis constitutes an attempt to understand the essence of "the other beings which, like man, are also part of the world", with regard to their relationship to and difference from the "having world" that marks man: "[1.] the stone (material object) is wordless; [2.] the animal is poor in world; [3.] man is world-forming" (Heidegger 1995 [1983]: 177]).

Finally, one shoulds make reference to Heidegger's history- and memory-oriented typology of at least four existentialist attitudes towards the human being-in-the-world (1995 [1983]: 424–449]), as derivation/genesis (1995 [1983]: 444]), event/transformation (1995 [1983]:: 430]), or heritage/legacy (1995 [1983]: 435]), past/alien previousness (1995 [1983]:: 448]).

To trace the way, in which the human life-world (Edmund Husserl's *Lebenswelt*) turned out to change from being-in-the-world (Martin Heidegger's *Dasein*) to the lived-through-world (Maurice Merleau-Ponty's *monde vécu*), one should estimate the statement from, *Phenomenology of Perception*, 2005 /1962/ [*Phénomènologie de la perception,* 1945: "The process of making explicit, which had laid bare the 'lived-through' world which is prior to the objective one, is put into operation upon the 'lived-through' world itself, thus revealing, prior to the phenomenal field, the transcendental field." (Merleau-Ponty 1945 [2005 /1962/ [1945]: 73).

What is more, Maurice Merleau-Ponty emphasizes that:

> Consciousness is being-towards-the-thing through the intermediary of the body. A movement is learned when the body has understood it, that is, when it has incorporated it into its 'world', and to move one's body is to aim at things through it; it is to allow oneself to respond to their call, which is made upon it independently of any representation. (1945 [2005 /1962/ [1945]: 159-161).

The direction of interpretative reasoning inaugurated by Merleau-Ponty has been undertaken by Max van Manen who has used the phenomenological notion of lifeworld existentials, in his *Researching Human Experience. Human Science for an Action Sensitive Pedagogy* (1997/1989/), to explore and understand the world of the lived experience.

An extensive exploration of phenomenological traditions and methods for the human sciences, such as psychology, education, health care, and everyday living, is culminated in Van Manen's *Phenomenology of Practice: Meaning-Giving Methods in Phenomenological Research and Writing* (2014). Above all, the applications of interpretative or hermeneutic terms have appeared to be very productive, such as "lived life", "lived meaning", or "lived experience".

Even having been widely distributed, the so-called "essential themes" pertaining to the analysis of lived experience, called otherwise "lifeworld existentials" – initially four in number, lived body 'corporeality', lived human relation or lived self-other 'relationality', lived space 'spatiality', and lived time 'temporality' (cf. van Manen 1997/1989/: 18, 27, 31–35, and further pages),

In his later article of 2007, "Phenomenology of practice", van Manen implicitly formulates his conviction that "Phenomenology of practice is formative of sensitive practice, issuing from the pathic power of phenomenological reflections. Pathic knowing inheres in the sense and sensuality of our practical actions, in encounters with others and in the ways that our bodies are responsive to the things of our world and to the situations and relations in which we find ourselves." (2007: 11).

Claiming that: "A phenomenology of practice grasps the world pathically" (2007: 20), van Manen explains that "the term *pathic* relates to the terms of a discourse, as in, em-pathic and sym-pathic ... more generally, to be understandingly engaged in other people's lives" (2007: 20 italics are ours: ZW). As van Manen further exhibits, despite the fact that the derivational basis of *pathic* is *pathos*, meaning 'suffering and also passion': "In a larger life context, the pathic refers to the general mood, sensibility, sensuality, and felt sense of being in the world" (van Manen 2007: 21).

Undoubtedly, Maurice Merleau-Ponty's statement: "Consciousness is being-towards-the-thing through the intermediary of the body. A movement is learned when the body has understood it, that is, when it has incorporated it into its 'world'" ([1945] 2005/1962/: 159–161) might be easily comparable with Max van Manen's ways of reasoning. "The pathically tuned body recognizes itself in its responsiveness to the things of its

world and to the others who share our world or break into our world. The pathic sense perceives the world in a feeling or emotive modality of knowing and being" (2007: 11).

Although van Manen has claimed in *Researching Human Experience* that "the experience of lived time, lived space, lived body, and lived human relation) are preverbal and therefore hard to describe" (1997/1989/: 18), these lifeworld existentials may be considered in terms of commonly lived experiences, while using such descriptors as "lived word-ness (textuality)", or "lived sign-ness (semioticality)", with reference to the textual view of language and culture, or the so-called semiospheres of culture, promoted by Juri Lotman, in his articles, "The semiotics of culture and the concept of a text", 1988 [«Семиотика культуры и понятие текста», 1981], and "On the semiosphere", 2005 [«О семиосфере», 1984].

5. Subjective and objective knowledge about world and reality

To begin with Bateson's belief, the world-view depends upon the perception of reality (1951: 237), as, firstly: "a category of observables in opposition to mental phantasies", secondly, "a social construct"... determined by dissimilar viewpoints" and interpretations "in different cultures", thirdly, "a set of personal knowledge ... acquired through observation and formulated through mental propositions", fourthly, "a kind of living through and coping with the world of phenomena on the basis of pleasure and gratification", and fifthly, "a pre-given factual" sphere "based on communication in opposition to the artificially created magical" sphere "based on rituals" (1951: 239–242, quoted and sited in Wąsik 2016b: 28–29).

Among philosophical queries, it is the epistemological theory of Karl Popper (1972), which has been mostly quoted, contested, or complemented. The following "three worlds or universes" might be distinguished as distinct domains of human knowledge, according to Popper's *Objective Knowledge. An Evolutionary Approach*, "first, the world of physical object or physical states, secondly, the world of states of consciousness, or mental states, or perhaps behavioral dispositions to act; and thirdly, the world of *objective concepts of thought*, especially of scientific and poetic thought and works of art" (1972: 106).

As Geoffrey Leech remarked in *Principles of Pragmatics* (1983), Popper's main intention was to justify that there is such a third world, which entails the "objective 'knowledge'", or the "knowledge 'without a knowing subject'" involving its formulation in linguistic theories (quoted

and cited by Leech 1983: 49). However, Popper (1972: 70) did not maintain that his three-worlds conception was exhaustive in relation to four language functions, such as (A) expressive, (B) signaling, (C) descriptive, and (D) argumentative.

Therefore, Leech (1983: 51), noticed only that what was missing in Popper's evolutionary epistemology was a link to a world of societal facts, intervening between the second (subjective) and the third (objective) worlds, as the intersubjective world. Thus, Leech's division (cf. 1983: Table 3.1.) embraced objects and states of: World 1 – physical (including biological), World 2 – mental (subjective), World 3 – societal (intersubjective), World 4 – scientific and artistic (objective knowledge).

A similar issue, which appears to be helpful in the understanding of the world beyond signs, is the theory of modelling systems of reality, put forward by Juri Lotman mentioned above, and Thomas A. Sebeok, where the crucial role is ascribed to the semiotic self, as a world-model-builder or world-view-designer. In his theses of 1967, translated as "The place of art among other modelling systems", 2011 ["Тезисы к проблеме 'Искусство в ряду моделирующих систем'", 1967], Lotman describes a model as "an analogue of an object of perception that substitutes for it in the process of perception" (2011 [1967]: 250).

According to Juri Lotman: "A modelling system is a structure of elements and rules of their combination, existing in a state of fixed analogy to the whole sphere of the object of perception, cognition, or organization. For this reason, a modelling system may be treated as a language" (Lotman 2011 [1967]: 250).

While taking a constructive stand to Lotman's claim (cf. also. Primary and secondary communication-modelling systems, 1977 [О соотношении первичного и вторичного в коммуникативно-моделирующих системах, 1974]) by posing the question (at the Semiotic Society of America Meeting in 1987), "In what sense is language a 'primary modelling system'?", Sebeok (1988) submits his modelling systems theory based on the detachment of non-verbal (natural) from verbal (conventional) and non-verbal (cultural) communication systems. At the same time, Sebeok mentions that it is very likely that the representatives of the species *Homo habilis* had the capacity of language without any verbal expression, claiming that: "Solely in the genus Homo have verbal signs emerged. To put it in another way, only hominids possess two mutually sustaining repertoires of signs, the zoosemiotic nonverbal, plus, superimposed, the anthroposemiotic verbal" (1991 /1988/: 55).

To put it in another way, only hominids possess two mutually sustaining repertoires of signs, the zoosemiotic non-verbal, plus, superim-

posed, the anthroposemiotic verbal" (Sebeok 1991 /1988/: 55). In Sebeok's view (1979), the human being acts as a semiotic self in the capacity of a world-model builder also on the level of biological organisms. Therefore, its primary modelling system of reality is created in the surrounding of animals through the mediation of effectors and receptors, i.e., on the level indexical symptoms and appealing signals.

Whereas the secondary modelling system, involving the extralinguistic reality of everyday life, construed by the use of verbal means of signification and communication, appears only in the sphere of humans, the tertiary modelling system, encompassing the extrasemiotic reality of human civilization, being artificially created and generationally transmitted through tradition, entails the whole semiosphere of language and culture (discussed and cited after Wąsik 2016a: 132–133). Worth quoting is the opinion of Susan Petrilli who supported Sebeok's convictions that: "Thanks to language understood as modeling device and to its syntactical capacity, the human animal, differently from nonhuman animals, is not programmed to remain fixed within a single world, but, on the contrary, is able to build an infinite number of possible worlds through the work of construction, deconstruction, and reconstruction" (Petrilli, *The Self as a Sign, the World, and the Other*. *Living Semiotics,* 2013: 38–39).

The topic of the creative use of language has been extensively discussed in numerous works about dispositional potentials of human individuals as communication participants as well as mental faculties and physiological endowments of human beings as speaking animals. The abilities of humans to create unusual novelties or to perform average innovations in style and form of language as a means of communication, encompass the imaginative altering of abstraction of cognizing and sign-processing subjects, to displace themselves from one existence mode to another and to enter into sometimes inexperienced dimensions of their states of being, or to the assumed states of others while basing on the creative power of knowledge.

In allusion to the mundane phenomenology, one should recall the idea of the social construction of reality from the late 1960s, based on the assumption that people create their own view of the world they live in on the basis of reflections of their individual experiences. Sociological constructivists take for granted that the reality of everyday life is shaped by information gained by particular human beings as organisms in interactions with their environment. Personal constructs result therefore not only from a similar perception of the world but also from analogous attitudes towards the objects evaluated with respect to their utility. It is supposed that interpersonal communication can lead to creating inter-

subjectively similar personal constructs in the minds of people interacting within the same culture. As pointed out by Peter Ludwig Berger and Thomas Luckmann, in *The Social Construction of Reality* (1966), man is a social being and his contacts with external environments is mediated by symbols. Hence, it is the language which "objectivates the shared experiences and makes them available to all within linguistic community, thus becoming both the basis and the instrument of the collective stock of knowledge" (1966: 68). This collective stock of everyday knowledge is created due to social interactions (cf. 1966: 19–46). A certain kind of a social construct is the reality of everyday life, or the world of life, which comes into being as a result of communicational activities. As Peter L. Berger and Thomas Luckmann have stated: "The reality of everyday life" appears to individual selves "as an intersubjective world, a world that" they "share with others". However, this intersubjectively comprehended world "sharply differentiates everyday life from other realities of which" they are aware (1966: 23).

The postulative conception of imaginative abilities of humans to create possible or alternative worlds, may finally be supported by the statement of Jørgen Dines Johansen, assuming that "we are programmed by evolution to produce virtual universes in dreaming, in playing, in hypothesizing about the future and in daydreaming", and what is more, "the production of fictional universes allows us not only to project future changes onto present states of affairs, but also to change the conditions—among other things, the nature and the ontological status of the agents" (quoted and cited in 2011: 219).

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The influence of game-based learning on the improvement of communication skills in English language learners

ABSTRACT. The proficiency of oral communication is perceived as one of the most difficult skills to be achieved in the foreign language teaching. Hence, I focus on the influence of game-based activities applied in the process of learning speaking, emphasizing the benefits they offer to both learners and teachers. First, I summarize some approaches to the communication pedagogy, pointing out to the fact that for the effective equipment of learners with communicational skills, the activities of interaction rather than mere repetition should be considered as relevant. Furthermore, I examine selected factors that influence the process of learning how to communicate fluently, such as motivation or anxiety, suggesting that they can be positively stimulated in game-based activities. What is more, I support this suggestion by providing some brief characteristic of games, their typology, as well as the methods of introducing games to the classroom. Particularly, I pay attention to the games that are construed as stories in support of the argument that applying games in education largely facilitates the process of learning. In consequence, the empirical part of the chapter presents a description of *Planet Hexagon* game (GameIT. Board game. 2017–2020) and the results of a questionnaire conducted among the participants of *GameIT: Intensive Study Program* in Wrocław, Poland, between 23rd and 27th September 2019. The results of discussed studies show that learners in most cases respond positively to game-based activities that improve oral communication abilities especially in the case of students whose level of language proficiency is lower.

KEYWORDS: applied linguistics, communication skills, educational methodology, game-based learning

1. Introduction

To begin with, I would like to allude to the *Encyclopedia of Communication Theory* that provides a detailed chronological list of themes and concepts perceived as a domain of various communicological studies. As the editors, Stephen W. Littlejohn and Karen A. Foss (2009: iv-xviii) write in their "Introduction" to *Encyclopedia*..., this list starts in classical period, in which ancient Greeks and Romans laid the foundations for scientific debates concerning the issues of communication, and finishes fourteen pages later in 2008 with ideas concerning communication, among the other things in the media or in the virtual reality. The abundance of various topics proves that this concept is of crucial importance

in many fields of science and that still new perspectives to this phenomenon are adopted.

The present chapter focuses on communication perceived as a skill that every foreign language learner needs to master striving for the achievement of a high level of language proficiency. Because speaking is a type of skill which demands much more effort than other skills, like reading or writing, when it has to be performed accurately, the theoretical part of this chapter discusses selected factors influencing the process of learning communication and various techniques that can help students to communicate effectively, with reference to the students' fears connected with interpersonal relations. Attention is paid to the issue of games and their application in foreign language teaching. The empirical part of the article is devoted to the detailed presentation of the game played by the students and, subsequently, to a questionnaire conducted among students engaged in game-based activities. The questionnaire is discussed in a way that it also provides answers to questions concerning the influence of game-based learning on the improvement of communication skills acquired by particular English language learners.

2. Approaches to teaching oral communication

As has already been stated above, among the four skills needed to learn a foreign language, i.e., reading, listening, writing, and speaking, speak-ing is considered by many learners to be the hardest to master. At the same time, it is a crucial skill, since oral communication is in majority instances the basic way of interaction in situations when a foreign language is needed. Students learn a foreign language mostly for the purpose of being able to use it while talking to others, either in leisure situations like holidays abroad or in a business environment, particularly while performing public speeches or making presentations. It is the speaking that displays whether the acquired elements like grammar structures or vocabulary items have been learned properly for ensuring successful communication. Difficulties in learning how to speak using a foreign language result, as Kathleen Bailey (2005: 47) states, from the fact that oral communication is a productive activity that takes place in real-time and, moreover, a student cannot numerously modify the things he or she wants to say like it would be possible, for example, in writing. Once a student says what he or she wants, sentences have been already produced and heard by the interlocutor, who may respond and demand a longer interaction. Therefore, teaching speaking requires a special approach that would imitate natural circumstances and train students to

create correct utterances on the spot. Moreover, Thanyalak Oradee (2012: 533) notices the fact that students who possess excellent knowledge of grammar and whose level of proficiency in listening is very high usually have problems with speaking. This inability frequently results from learning conditions in which they are not exposed to real situations, which might allow them to use a foreign language for communicative purposes. In the past, a technique, referred to as audiolingual repetition drills, was one of the most popular methods of teaching speaking. However, Kathleen Bailey (2005: 49) contradictorily argues that this method did not prepare learners for speaking naturally in real situations, because it consisted of a mere repetition of utterances and in the recitation of dialogues that students learned by heart. Furthermore, this technique was based on a belief rooted in behaviorism according to which the repetition of correct sentences leads to a formation of good speaking habits, which are later activated in real communication. In fact, in Bailey's opinion (2005: 50), learning a language, either first or second, happens rather a through interaction with other speakers and this is how students acquire new words and structures, not the other way round. This observation led to changes in the approaches to teaching speaking while putting emphasis on such activities that contain, according to Oradee, elements like "an information gap, a jigsaw puzzle, games, problem-solving, and role-playing" (2012: 533). It has to be added, following the belief of Kamonpan Boonkit (2010: 1307), that successful communicative accomplishments appear in teaching environments, which, for example, make available didactic materials based on actual students' needs, which provide opportunities to use a foreign language related to the classroom speaking tasks, while reinforcing the students' awareness of the language employed in the real world.

With reference to a new method of teaching speaking focused on interaction, Bailey (2005: 50) uses the term "communicative language teaching". As she states, this method may consist of communicative activities with the teacher's guidance paying more attention to correctness (a weak version) or communicative activities focusing entirely on speech and ignoring the feature of accuracy (a strong version). However, while some methods, in the light of which students realize their needs to communicate for the purpose of achieving some goal, are more effective than mere, automatic repetition; they involve more thinking on the students' part, which in turn may leave some space for reflections concern-ing the student's own fears and inhibitions. Therefore, in order to provide effective speaking activities, a teacher has to pay attention to a number of factors, including those which are related to psychological attitudes, such

as overcoming the learners' anxiety. Some of these factors are briefly discussed in the following section.

3. Selected factors affecting learning oral communication

Among the most important factors, which affect learning a foreign language, discussed in the following part of the paper, as especially valid with reference to the development of the learner's speaking activities, appear namely personality, anxiety, and motivation. What is more, this oral-communication-related criterion has been significant for considering them to the game-based learning environment.

3.1. Personality

For a popular understanding, it is enough to quote, the first among four definitions from *The US English Dictionary*, powered by *Oxford Dictionary*, where personality is seen as "the combination of characteristics or qualities that form an individual's distinctive character" (see Personality. 2020.). Practitioners of English language teaching mostly rely on the statement of Douglas H. Brown claiming that the "careful, systematic study of the role of personality in second language acquisition has already led to a greater understanding of the language learning process and to improved language teaching designs" (2000: 143). With respect to the communicational dimension, relevant is the position of Jafar Pourfeiz, who states in his article "Exploring the relationship between global personality traits and attitudes toward foreign language learning" that personal qualities may influence the "development of speaking confidence and willingness to communicate in English" (2015: 468).

One of the relational properties of human personality that affects language learning is self-esteem. Brown (2000: 145) maintains that the state of being self-confident, at least to some degree, and the attitude of believing in one's own capabilities definitely can enhance the progression of learning while making it easier for respective students to take part in speaking activities. Self-confidence is further related to introversion and extroversion, which also play a significant role in learning. The stereotypical perception of those two dimensions would lead to a conclusion that extroverts are more self-confident because they are characterized, in the view of Zafar Shahila and K. Meenakshi, as "sociable, like parties, have many friends and need excitement in everything they do; they are sensation seekers and are lively and active" (2012: 34). As a result, students, who are the most eager to participate in speaking tasks

during the lessons, are extroverts. However, it does not mean that their linguistic abilities are better, as shown in the case of one of the studies, described by Brown (2000: 155), having been conducted among Japanese learners of English in 1982, which revealed that introverts' pronunciation was much more correct than those of extroverts. Explaining this observation, Shahila and Meenakshi (2012: 34) claim that despite the fact that introverts are perceived as not very willing to speak to others, they are more patient while learning and they are probably not satisfied until they achieve a high level of language proficiency, whereas extroverts' aim is to communicate with others, not necessarily in the most accurate manner. In this context, Brown (2000: 155) assumes that extroverts seek other people's support and acceptance, whereas the introverts' character is stronger. So, they do not need any praise from others as much as extroverts do.

3.2. Anxiety

It seems that introverts are more aware of anxiety, however, as the aforementioned description of those two personality types shows, this stereotypical characterization seems not always to be accurate. As the present section indicates, anxiety is not always negative and thus it may be related to excitement extroverts are experiencing while taking part in speaking activities, and in particular in competitive ones like a game.

Anxiety is usually perceived as one of the main obstacles preventing students from speaking effectively using a foreign language. Elaine K. Horwitz, Michael B. Horwitz, and Joann A. Cope (1986: 128) define this state of mind as consisting of "self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of the language learning process". Generally, anxiety is perceived as a negative phenomenon, as far as it involves feelings such as these enumerated by Brown (2000: 151), namely "uneasiness, frustration, self-doubt, apprehension, or worry".

While anxiety may appear in relation to various aspects of foreign language learning, it is most frequently discussed in the context of oral communication. This kind of anxiety relates, in particular, to the fear of being negatively evaluated by people listening to one's oral performance, or the fear of making mistakes and having lower speaking skills, especially when being compared to other students who take part in a conversational activity.

However, while the negative aspects of anxiety refer to the state of unease, which Brown (2000: 151) describes as "debilitative anxiety", there is also the second face of this concept, namely a "facilitative anxie-

ty", which is positive in kind when it enhances the students' learning. Similarly to the positive stress, the facilitative anxiety can be beneficial in the case when the students are made more alert and open to acquiring new knowledge, i.e., if they want not to be perceived as worse as other learners

3.3. Motivation

Motivation has been widely discussed in the context of learning in general, when bearing in mind the assumption that "success in any task is due simply to the fact that someone is 'motivated'" (Brown 2000: 160). For the reason of explaining the concept of motivation, many definitions departing from distinct perspectives have been created. In the context of second language acquisition, the idea of integrative motivation, postulated by Robert C. Gardner (2000: 1) within the frame od socio-educational model, is very popular. According to Gardner, motivation can be defined as "the driving force in any situation" and in the context of learning a foreign language, it consists of three elements: effort, desire and affect. With respect to effort, it can be explained as "a persistent and consistent attempt to learn the material". As such motivation is dis-played, inter alia, "by doing homework, by seeking out opportunities to learn more, by doing extra work". Desire, in turn, means that a foreign language learner simply "wants to achieve the goal". The third element, i.e., affect, stands for the fact that the individual is having fun while learning a language. What is significant, the concept of integrative motivation means, in Gardner's view (2000: 6) that a learner displays all three, and not only one or two of the aforementioned elements. As will be further explained in the following sections, integrative motivation may be facilitated by game-based learning that provides some stimuli for all the three discussed elements, i.e., effort, desire and affect.

4. The application of games in the foreign language teaching

The usefulness of games in teaching is emphasized by many scholars dealing with the issue of game-based learning. Among the advantages of applying game-based activities in the learning environment Blanka Klimova (2015: 1158-1159) enumerates the following: "games get students involved in their learning; they motivate them", "games introduce a change in the formal learning environment", "games create a pleasant stress-free and relaxing atmosphere in a language class" and "games un-

consciously promote and practice all four basic language skills, such as listening, reading, speaking and writing". The following part of the paper aims at supporting the thesis concerning a positive influence of games on the learning process by providing a definition and brief characteristics of games with special attention devoted to perceiving games as instances of stories. Furthermore, an introduction to the issue of game-based learning is thoroughly outlined.

4.1. Towards the definition of a game and its types

As one may learn from the entry of Anat Biletzki and Anat Matar. (2018: Internet pages), published in *The Stanford Encyclopedia of Philosophy* available online, for Ludwig Wittgenstein, it is not possible to create one definition that could be used with reference to all games, because this type of human activity has a very conventional character. However, many attempts of defining the concept of a game have been made, among other authors by Jaakko Stenros, from the Finish University of Tampere, who talk over, in his publication (2016: Internet pages), above 60 definitions of this term that have been created since the 1930s.

In the context of education, one of the simplest definitions provided by Maria Toth (1995: 5) states that a game is "an activity with rules, a goal and an element of fun". The last feature of games referred to in this definition is also mentioned in the following description by Peña-Miguel Noemí and Sedano Hoyuelos Máximo (2014: 230) stating that "a game is a physical or mental contest played according to specific rules, with the goal of amusing or rewarding the participant". According to Susan Boyle (2011: 3), the element of fun mentioned in both definitions above is one of the most important features of games contributing to their popularity in teaching, due to which "games offer a unique structure to complement traditional teaching strategies and infuse teaching with energy, spark innovative thinking and provide diversity in teaching methods".

As far as the types of games are concerned, there are also many classifications dividing games into various categories. In one of the basic approaches, specified by Toth (1995: 5), games are divided into competitive, i.e., the ones in which participants' motivation consists in a desire to win the game, or co-operative in which players work together for achieving a common goal. In turn, depending on the function of games, William Rowland Lee (1991: 18), discussed by Janina Gruss (2016: 86), proposes to distinguish between the structure games, in which particular attention is paid to syntax, vocabulary, spelling, pronunciation, or number games, listen-and-go games, writing games, miming and role-playing games, and the discussion games.

Furthermore, another typology, provided by Jill Hadfield (1999), is based on the structure of games, which allows distinguishing sorting, order-ing or arranging games, information gap games, guessing games, search games, matching games, labeling games, exchanging games, board games, role-playing games. With respect to this typology, Janina Gruss (2016: 87) argues that the categories do not have clear-cut boundaries, inasmuch as it is possible to mix various types, for example, when students in a role-playing game are using the dices which are characteristic of board games. Whereas for the purpose of the present paper it is not necessary to look in details into the aforementioned types of games, it is worth observing that games have another very important feature, name-ly they each involve a certain plot that allows the participants to engage in the activity and focus on reaching the goal that is stated by the rules applied in a given game. This issue is referred to in the following section, in which the games are perceived as stories.

4.2. Games as stories

The stories-related aspect of the game has been widely discussed in Jonathan Gottschall's book *Storytelling Animal*, in which the author claims that what distinguishes people from animals is the fact that humans possess storytelling minds. This means that throughout the human lives individuals both create and encounter various kinds of stories. These stories are, as Gottschall means, "for a human as water is for a fish" (2012: 6). Thus, for a human, the activity of storytelling and interpreting stories is intuitive and natural; it appears in every stage of human life, serving as such many functions. In the case of children, stories, told in the form of fairytales and stories created during the play, have an educational function, i.e., they teach children about life and prepare them for real events. In the case of adults, stories appear in books, songs, films, video games, but also in sport – what Gottschall mentions here is wrestling (2012: 21–22), commercials, press, or anthropology, where they not only entertain but also attract the players' attention. Furthermore, people involve themselves in stories also subconsciously in dreams and memories.

It does not surprise that, due to their particular importance in human life, stories started to be applied also in education. In the estimation of Melanie C. Green (2004: 37), stories, unlike video games and other contemporary methods of teaching, have been used by teachers also in the distant past. What Green (2004: 38) exhibits, stories enhance teaching because they increase the students' attention, make the lectures "flow", facilitate memorizing, help fight with the students' fears and in-

hibitions, or create certain relations between the teacher and his students, as well as between the students themselves. For the reason that games are kinds of stories, in which the players interact while changing, in this way, their possible scenarios, it seems that the activities based on the application of games encompass intuitive kinds of human behavior, As such, they appear to be even more effective than one may initially assume.

4.3. Game-based learning

In the previous sections of the present article, it was suggested many times that games can positively influence the process of learning a foreign language. In this section, the aforementioned observation is supported by remarks concerning the issue of game-based learning in education in general.

In the view of Kristi Mead "game-based learning is a natural evolution from traditional methods of teaching, which include static, non-interactive elements, such as textbooks, chalkboards, and lecturing *at* students rather than exploring *with* students" (2011: internet pages). Besides, in contemporary reality, when social media are so popular, it is difficult not to encounter some game-like activities, which cause, as Annie Pho and Amanda Dinscore maintain that "many people have been exposed to game-based engagement techniques in one form or another, whether they've been aware of it or not" (2015: Internet pages). As a result, it becomes natural to use games in many contexts, especially in education, which is a sphere, where according to Boyle "games offer a unique structure to complement traditional teaching strategies and infuse teaching with energy, spark innovative thinking and provide diversity in teaching methods" (2011: 3).

With respect to personality factors such as introversion and extroversion discussed in section 2.1, it is usually stated that games are a better stim-ulus for extroverts who, as has been already said, enjoy collaborative activities. However, as Pear Deck claims, also students who are not as open and sociable can enjoy game-based activities if they are given enough time to involve in the activity, hence "once they feel comfortable with the group, [they] might be quite extroverted" (2016: Internet pages). It seems that games are particularly appropriate when it comes to making an introvert forget about his or her inhibitions while engaging in an activity in which all members of one team are trying to achieve a common goal. Therefore, it seems that game-based learning may be appropriate for both extroverts and introverts, assuming that it provides a stimulus for both of these personality types; extroverts receive it in the

form of the possibility of working in a group and cooperating with others and introverts may be more persistent in their personal desire of winning the game.

Similarly, when it comes to anxiety, researchers like, for example, Boyle (2011: 3) point out that an entertaining game may distract students' attention from fears and increase their self-confidence. As noted in section 2.2, facilitative kind of anxiety is thus related to competitiveness and is a trait that may accompany students in a game-based learning environment.

Finally, games can be also an effective tool for learning when it comes to motivation. Apart from the integrative perspective on motivation, there is also a distinction into intrinsic and extrinsic motivation, where the first type refers to motivation coming from the performed activity and the second type refers to behaviors that are defined by Brown (2000: 164) as those that "are carried out in anticipation of a reward from outside and beyond the self. Typical extrinsic rewards are money, prizes, grades, and even certain types of positive feedback". According to this description, games seem to be particularly useful when it comes to extrinsic motivation, i.e., the one associated with winning and prizes. However, Thomas W. Malone (1981: 335–337) distinguished three elements that make an activity intrinsically motivating, i.e., challenge, fantasy, and curiosity, all of which can be related to game-based activities. Therefore, it seems that game-based activities not only provide extrinsic motivation, but they stimulate intrinsic motivation as well.

The following section presents a description of the game that was played by students taking part in the present research. The description reveals that the game has the form of a story, therefore the author refers not only to the issue of game-based learning but also to story-based learning as well.

5. The case study – describing the game

Students that took part in the questionnaire, being discussed in the following section, were playing a board game called *Planet Hexagon* (GameIT. Board game 2017–2020). A description of the game prepared by its creators states that it is a competitive/cooperative game in which four players/teams compete with one another, but members of a team cooperate with one another. Therefore, the rules provide stimuli both for increasing motivation that is enhanced by a competitive factor, and a safe environment for more introvert students, who are supported by other members of their team in their efforts to win. The aim of the game is

to create a colony consisting of fields, forests, water, houses, and public buildings and at the same time, to collect the biggest number of points assigned to specific configurations of objects in the colony.

While a detailed description of the principles governing the game is not significant for the purpose of the present article, it is important that the first page of a booklet for players introduces the background of the game in the form of a story (GameIT. Board game 2017–2020). The story starts, like many fairy tales, with words "once upon a time…", and the text of the story consists of three paragraphs describing the events preceding the ones that are supposed to take place during playing the game. The aim of this text is to explain the goal of the game, but also to make the participants interested in the plot and to create the feeling of involvement in the activities that are going to take place. The story uses words and phrases that enhance imagination such as "a land of milk and honey" or "they all lived in perfect bliss" and structures that build tension ("Little did they know what the future held for them!"). The linguistic tools used in the story contribute to the fact that the participant, who is reading it, starts to feel tensions about the presented events and develops some kind of motivation for playing the particular game. It is worth explaining here how the emotional language and structures influence the activation of the so-called mirror neurons, making reference to Gottschall (2012: 64), who holds that when people observe others experiencing some kind of emotions, the mirror neurons are activated in their brain causing that they are in the same state of mind. Similar lived experiences are known to those who are engaged in reading a book, or, like in this case, a short story; they see the events with the eyes of their imagination what causes that, for example, they feel afraid when the character of the story is experiencing some frightening events. Therefore, one could be entitled to assume that the background story of the *Planet Hexagon* (GameIT. Board game 2017–2020) may cause that the players identify themselves with the creatures inhabiting the planet, and this may undoubtedly increase their motivation during the game playing activities.

5.1. Discussing the procedures and methods of the research conduct

The questionnaire discussed in the present section was distributed among the participants of the *GameIT: Intensive Study Program*, *September 23-27, 2019* (http://game-it.net/index.html). There were 38 people responding to the questions, 14 male and 24 female, coming from Poland, Slovenia, Romania, and Nor-way. The age of the participants ranged from 20 to 35 years old (however there was only one person that

was 35 years old and only one 32 years old) and their level of English was in most cases B2 or C1 (some students claimed that their English level was A2, however, the fluency they represented proves that they did not estimate this correctly. Moreover, students from abroad seemed to be unfamiliar with the *Common European Framework of Reference* scale (CEFR 2001–2018). The students took part in the research after the second session of playing the *Planet Hexagon* game (GameIT. Board game 2017–2020) described in the previous section. The questionnaire consisted of 9 questions, whose purpose was to evaluate the role of performing a game-based activity in the process of learning communication

One of the questions, students taking part in the questionnaire were asked, referred to the most difficult language skill for them. While 9 students responded that none of the skills was difficult for them, the majority decided that speaking was the most difficult (11 students). Other skills, namely writing and listening were selected by 9 and 8 students respectively. No one mentioned reading, probably due to the fact that this is a receptive skill, being opposed to productive speaking. Given that communication is the most essential skill, I decided, for the purpose of the present article, to take a closer look at the 11 questionnaires, in which speaking was circled as the most difficult skill. 8 students for whom speaking was the most difficult claimed that their English level according to CEFR is B2. There was also 1 student with A2 level, 1 with B1 and 1 with C1. 9 students out of 11 were female and only 2 male. 6 students were 21 years old, there was also 1 student 20 years old, 1–22 years old, 1–23 years old and 2–24 years old.

Students taking part in the questionnaire were further asked about their personality type. The majority of students decided that they were extroverts (26 out of 38). 2 students decided that they belonged to both groups equally, 10 students claimed that they were introverts. In the group of students for whom the skill of speaking was the most difficult, 7 were extroverts and 4 – introverts. For other introverts writing and listening were the most difficult skills (3 students circled writing and 3 – listening). This confirms the aforementioned statement that speaking may be difficult also for extroverts, who sometimes lack self-confidence in the same degree as introverts, whose strength comes from other, inner sources (see Section 2.1).

The other two questions from the questionnaire were: “How easy do you generally find it to talk in English in the classroom?” and “How easy did you find it to talk in English during playing the game?”. Students were asked to write a number from 1 which meant “it’s very easy” to 6 – “it’s very difficult”. 17 students out of 38 decided that it was equally easy

for them to talk in English both generally in the classroom and during playing the game. Also, 17 students decided that it was easier for them to talk in English during playing the game. 3 students decided that it was more difficult to talk in English during playing the game.

In the group of 11 students who decided that speaking is the most difficult language skill, 8 people decided that it was easier for them to talk in English during playing the game, 2 people stated that it was the same and 1 student decided that it was more difficult to talk during playing the game than generally in the classroom. When asked about the explanation, students who claimed that it was more difficult for them to talk during playing the game claimed, for example, that it was their first experience like that (1 person) and that sometimes a student missed a word (1 person). In the group of 10 introverts, 6 decided that it was the same for them to talk in English in the classroom in general, and during playing the game, 4 decided it was easier during playing the game. The aforementioned observations confirm the claim that a game-based environment facilitates speaking. However, the fact that a significantly high number of students admitted that it was equally easy for them to converse in English in the classroom and in the activity of playing the game. This fact resulted, indeed, from the high level of English represented by the participants of the *Intensive Study Program*. It seems that the lower level the students represent, the better influence on their speaking abilities games have. In the last two questions in the questionnaire, students were asked to evaluate their communication skills before and after taking part in the game session. This time numbers were 1 – for bad communication skills and 6 – for good communication skills. 20 students responded that their communication skills are better after playing the game than before it. Generally, the improvement was with 1 point, but there was 1 student who claimed that before playing the game she would give herself 3 points and after playing the game – 6 points. 17 students decided that there was no difference in their communication skills before and after playing the game. None of the students claimed that their speaking skills became worse after playing the game. There was 1 person who did not answer this question with points but just claimed that during the performance of playing the game she was "trying to speak as much as possible with people". This person belonged to the group of people for whom speaking was the most difficult language skill, which suggests that the game-based environment may encourage people who do not feel confident while speaking to take part in communicative activities. The other 5 people in that group decided that their communication skills were the same before and after playing the game and 5 also decided

that their communication skills improved after playing the game. In the group of 10 people who stated that they are introverts, 7 claimed that they had improved their communication skills after having played the game and 3 claimed that it was the same both before and after having played the game.

5.2. Summarizing the results of the study

The results of the questionnaire shed some light on the influence of game-based learning on the improvement of communication skills acquired by English language learners. First of all, the questionnaire confirms that speaking is perceived by many students as the most difficult language skill. On the other hand, reading, which is the least productive of the four skills, is the easiest one. Furthermore, the questionnaire shows that both introverts and extroverts may benefit from playing games while learning. As it appeared, speaking was difficult not only for introverts, if one takes into account that there were 7 extroverts out of 26 students who claimed that speaking was the most difficult language skill for them. The questionnaire also has shown that taking part in a game-based activity frequently improves communication skills and makes it easier for both introverted and extroverted students to talk than during traditional classroom activities. The high level of English may be the reason for which the same number of students claimed that there was no difference for them whether they speak English generally in the classroom or during playing the game. This may suggest that games are better tools for learning communication to students with a lower level of English. On the other hand, the majority of students, irrespective of their level, still responded that playing the game allowed them to improve their communication skills. One of the reasons for that may be the fact that playing the game makes students immerse in the speaking activity and increases their motivation, which is an important factor enhancing the learning process at all levels of language proficiency. One of the students from the questionnaire responded that it was easier to talk English during playing the game than generally in the classroom because they "had fun and got ambitious about making points". This statement illustrates the claim that games create a special kind of environment in which using a foreign language becomes more natural and is enhanced by other goals that make the whole process pleasurable.

6. Concluding remarks

The present chapter constitutes an attempt at highlighting the advantages of introducing games into the learning environment on basis of the *Planet Hexagon* board game. During the intensive study students were also involved in playing an RPG game, which also could be analyzed in terms of its influence on the improvement of communicative skills and two types of games could be compared. The provided questionnaire could also be further investigated with respect to, especially, differences among participants of different sex, age, or nationality. Further emphasis should be put on the application of games among the students of various levels of proficiency, inasmuch as the present study suggests some differences among the benefits of games depending on the fluency of participants. A more detailed analysis of these differences could result in the creation of some guidelines concerning the adaptation of games to students with various needs resulting from their language proficiency level. Additionally, the negative aspects of implementing game-based activities should be investigated too, in the case when the teachers become aware that too many game-based activities may, among the other things, distract the students' attention.

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Learning outcomes, skills, and competences achieved in using games

ABSTRACT. Games in education are becoming more and more common. Contemporary education moves from the traditional transmissive didactic model of teaching to active student-centered learning. The role of the teacher is to provide students with an appropriate environment, games, activities, and guide and support the student. Learning objectives should move to higher taxonomic levels. With the introduction of the game to lessons, the teachers need to ask themselves what they want to teach the students, what learning goals they want to achieve. The main idea of the *GameIT* project was to develop a hex board game and four role-playing games, which give students an opportunity to practice and develop the 21st-century skills and competences, such as communication, collaboration, logical and creative thinking, etc. As contributors to this project, we focused on games in pedagogical practice, on the question of when to use them and on learning goals, associated with different types of skills. By analyzing the hex board game tests in Slovenia and the Slovenian involvement in the role-playing games during the *GameIT: International Intensive Study Program, September 23-27*, organized in Wroclaw, we checked to what extent our learning goals were achieved.

KEYWORDS: communicational skills, educational methodology, game-based learning, learning outcomes

1. Introduction

Game-based learning is becoming more relevant. Contemporary education, therefore, requires a transition from the traditional didactic model of teaching to active, student-centered learning. Instead of frontal knowledge transfer, the teacher prepares the appropriate environment, tasks, and challenges for the students' independent learning, guides them, and give them feedback. Learning objectives should be shifted to higher taxonomic levels, with an emphasis on the search for, evaluation, and application of knowledge (cf. Rugelj, Jedrinović, Bevčič 2018).

2. Game-based learning

Although games have always been an important form of learning, they have rarely been used in formal education. Games have often been characterized as »not serious enough«, especially for the education of older students. The introduction of information and communication technology (ICT) has brought significant changes in education. ICT often encourages teachers to think about new approaches, such as collaborative learning, that can be implemented in the classroom also without the use of ICT. The advent of computer game-based teaching has led experts to consider the use of games in school since high-quality games always involve construction, synthesis, and application of knowledge, which means that through playing games, the player actually performs activities that are essential in constructivist learning theories.

2.1. Games and different theories of learning

The majority of computer games, which used actual teaching materials with some playful accessories, were initially based on the behavioral learning theory. Accordingly, the basic elements of the learning process were connected with a question and the player's response. If the answer was correct, positive feedback was sent to the player – it could be a happy tune or emergence of figures, that stimulate positive emotions.

The opposite was in the case with a wrong answer, where negative feedback was given, e.g., a sad melody. Behavioristic games were based on the 'drill and practice' principle and the use of game techniques such as quizzes, point and click, or practicing basic arithmetic operations. What is increasingly used today is a constructivist approach. Based on the active role of the learner, it allows to achieve higher taxonomic levels of knowledge. It is the problem-based learning which should take place in an authentic environment. The main task of the teacher is to select suit-able games and to provide the right guidance and responses before or during gameplay. After the gameplay, the teacher needs to reflect on the gameplay and on the accompanying events related to learning, and make a summary of the learning results, as this helps the learner to construct appropriate mental models.

2.2. Games in pedagogical practice

Serious games can be found at all levels of education, almost everywhere where people learn, from kindergarten to higher education, different subject fields, formal and informal education. Such forms of educa-

tion are more recently used in the areas where it is very difficult to train people in real situations, e.g., in the army or in healthcare. Serious games offer an opportunity to establish players in the desired environment where they can identify with it. Not only in the army and healthcare, but serious games are also becoming more and more common in education in the field of public administration, governance, and management as well as in other areas where specific forms of communication, negotiation, and teamwork are required, especially in practical training.

Constructivist learning theory has become most widespread in higher education. In 1966 Jerome S. Bruner proposed the idea of learning as an active process in which people construct their own insights on a subject by building on past knowledge and experience. According to him (Bruner 1966), teaching should encourage the inclination to learn and show ways of structuring knowledge in such a way that learning is most effective. There are three basic principles of constructivism according to John R. Savery and Thomas M. Duffy. (1995): (1) the concept of situated cognition where the individuals' understandings are developed through interactions with their environment in an authentic context; (2) cognitive puzzles that provide the incentive to learn; (3) social collaboration, where knowledge develops and tests understanding through discussion with others and provides sources of alternative views to challenge the way people think (cf. Rugelj, Jedrinović, Bevčič 2018).

2.2.1. Increasing the frequency of games

Following Karl M. Kapp (2012), games have become increasingly popular in recent years. One of the reasons for this is that games are easier to build today than in the past. Software programs make building a simple game easy and fast. Secondly, the average age of people playing (video) games is also increasing. The next reason is that not all people who have a college degree and have created games in game development programs find jobs in the game industry, so they work for software development companies and bring game sensitivities to the design of enterprise software. And another, equally important reason is that games are now available on smartphones. Since many people have a smartphone, they somehow carry games around with them all the time, which allows them to play games wherever they want.

2.2.2. When to use games in education

In determining how and when a game should be used in education, a game should be tailored to the desired learning outcome. One way to

ensure that learning succeeds is matching in-game activities with an instructional taxonomy. A taxonomy of educational objectives is a framework for classifying what is expected or intended from learners. One of the best-known taxonomies is the so-called Bloom's taxonomy, which has been developed with a committee of collaborators by Benjamin S. Bloom (1956).[1]

Cognitive (thinking) is based on understanding, comprehending, and synthesizing knowledge. Affective (emotional domain) is used, for example, when an attempt is made to convey a positive attitude towards a customer or safety at work in a dangerous environment.

Psychomotor skills (physical abilities & cognitive knowledge) constitute combinations of physical activity and thinking when driving a commercial vehicle, where the driver must control braking with his foot (physical) to know the correct braking distance and how to react in case of emergency (cognitive knowledge). Since then the hierarchy has helped to create a structured curriculum (in our interpretation: MB, SJ & JR), as in Table 1.

Table 1. The original hierarchy of Bloom's taxonomy (1956: 18)

Educational objectives
evaluation
synthesis
analysis
application
comprehension
knowledge

Forty-five years later Lorin Anderson, Bloom's student, created with David Krathwohl, Bloom's partner, a revised version of Bloom's taxonomy of cognitive knowledge. These changes rely on the reformulation of nouns to verbs, renaming of some components, and repositioning of the last two categories, as shown in Table 2 (in our reinterpretation: MB, SJ & JR; popularized later by Krathwohl 2002: 215).

[1] It was during a symposium "The Development of a Taxonomy of Educational Objectives" at the *Fifty-Ninth Annual Meeting of the American Psychological Association, August 31-September 5, 1951, Chicago, Illinois*: chaired by Herman Henry Remmers, along with Benjamin S. Bloom (intellectual domain); David R. Krathwohl (affective domain). A vivid part in the discussions had been taken by Oscar Krisen Buros, Orval Hobard Mowrer, and John Marshall Stalnaker (the editor's note: ZW).

Table 2. A revised Bloom's taxonomy (Anderson & Krathwohl. 2001)

Educational objectives
create
evaluate
analyze
apply
understand
remember

It is important to check the different levels of the students' knowledge when considering activities which should be integrated into a learning game, based on the objectives to be achieved in the instruction. Table 3 exemplifies a revised taxonomy of Bloom with modified definitions of terms, associated verbs, simple game activities, and game examples according to Kapp (2012: 20; in our adaptation: MB, SJ & JR).

Table 3. A revised Bloom's taxonomy with terms, verbs, activities and game examples

Revised Bloom's taxonomy	Revised definitions of terms	Associated verbs	Simple game activities	Example games
Create	putting elements together to form a functional whole; reorganizing elements into a new pattern through generating, planning or producing	construct, create, design, develop, write, plan	building (players' own game)	Minecraft
Evaluate	making judgements based on criteria and standards through checking	argue, judge, select, support, value, evaluate	strategy	chess, risk
Analyze	breaking material into constituent parts, determining how the parts relate to one another through differentiating, organizing and attributing	compare, differentiate, Example, experiment, question, organize	allocating resources	the Sims
Apply	carrying out or using a procedure through executing or implementing	demonstrate, illustrate, solve, use, implement	role playing	video-based sports games

Understand	constructing meaning from oral, writing and graphic messages through interpreting, classifying, summarizing, comparing and explaining	classify, identify, recognize, report, select, interpret, summarize, compare, explain	puzzle solving, exploring	clue
Remember	retrieving, recognizing and recalling relevant knowledge from long-term memory	define, duplicate, memorize, repeat, recognize	matching, collecting	hangman

2.2.3. Learning goals

Learning goals can comprise different types of skills connected, following Kapp's taxonomy (2012: 20), with such categories as declarative knowledge, conceptual, knowledge-based rules, procedural knowledge, and the so-called soft skills. For each type of knowledge, experts identify appropriate teaching approaches and game techniques (cf. Rugelj 2015).

Declarative knowledge

Students acquire declarative knowledge primarily through memorization. Such knowledge includes different facts, data, and terminology. Declarative knowledge represents the basis for the acquisition of knowledge on higher taxonomic levels and students must learn it first.
The learning of declarative knowledge is largely based on the behavioristic learning theory. Known methods for this type of knowledge are linking (e.g., names with images or concepts with definitions) and repetition.

Conceptual knowledge

Conceptual knowledge is based on the understanding of concepts that are a form of association of similar or related ideas, events, or objects that have common attributes, e.g., free-market in economics, mathematical proofs, etc. Such game techniques are, for example, sorting or organizing elements and content according to their attributes, which is based on an understanding of the concepts and belongs to higher taxonomic levels. An additional measure of performance is the time that players spend on problem-solving. Time can be measured to make the game more challenging.

Knowledge based on rules

The rule is by definition a statement that expresses the relationship between the concepts. The rules define the parameters that dictate the de-sired behavior with predictable results (e.g., etiquette). The most commonly used learning strategies, in this type of knowledge, are illustrations with examples and role-playing, while the most appropriate techniques in games are simulations of tasks, experiencing the consequences of not following the rules, as well as sorting and classifying according to certain rules.

The simulation of tasks is a very common form of serious games. Simulations enable the player to encounter a customized virtual reality allowing the implementation of activities that would be too dangerous (or too expensive) in the world. For example, the various forms of driving, navigation, or flight simulations in the training of drivers, sailors, and pilots have been known for a long time. Sorting and organizing in this way is connected with the application of the rules.

Procedural knowledge

Procedural knowledge is based on the sequence of steps that must be performed in the correct order to achieve a selected goal. Learning strategies, in this type of knowledge, start with the "how" and "why". Such game techniques are, for example, exercises in which one follows the process under difficult conditions, the presentation of the challenge achieved through instructions, etc.

Soft skills

Soft skills consist of *leadership* and *management competences*. Leadership skills include decision making, team communication, and strategy development, while management skills include time prioritization, interpersonal skills, communication, etc.

Games are, according to, at least, one study, a perfect environment for teaching soft skills. Soft skills support self-directed learning and reflection on performance, in addition to interpersonal skills that enable actors to collaborate, communicate, cooperate, and negotiate important problem-solving skills (cf. Rugelj, Jedrinović, Bevčič 2018).

2.2.4. Competences for the 21st century

Based on the international framework (Ontario Ministry of Education 2016), the most important competences of the 21st century are linked to critical thinking, communication, collaboration, creativity,

and innovation. In the 21st century, the following competences refer to the ability to:

- *Communication:* communicate effectively, orally, in writing, with a variety of digital tools and also to listening skills (Fullan 2013). Some frameworks also cover information and digital literacy, while others cover different information, media, and technology skills.
- *Collaboration:* work in teams, learn from others, contribute to the learning of others, use social networking skills, demonstrate empathy in working with various others (Fullan 2013). Collaboration competence also requires developing collective intelligence, co-constructing meaning, and becoming content creators.
- *Creativity and innovation:* the importance of creativity for social development, economic competition, and the creation of economic growth (Fullan 2013).

In the following section, we will focus on the analysis of two education games being interested in who to achieve all the learning objectives set and what skills and competences the students acquire by playing these games.

3. Methods and results

Within the project *GameIT* we have prepared two board games, in collaboration with all other project partners: *Planet Hexagon* and a *Hex Game*. Furthermore, we have added here the *Storyland of Options* (SLO Game), a role-playing game developed by the University of Ljubljana.

3.1. Planet Hexagon

Planet Hexagon is a civilization-building game, in which players build their civilization by collecting and placing hexagonal tiles on their game board. In a competitive/cooperative game where four teams compete against each other. They score points by creating a new community through building houses and public buildings, acquiring fields, forests and water and setting up farms and factories. Each hex tile symbolizes a different type of property. The team with the highest number of points wins the game (GameIT. Board game. 2017–2020). The game promotes among other things: (1) the development of creative thinking, (2) communication, (3) intercultural awareness, (4) cooperative skills, (5) and also supports English language skills.

To determine the achievement of the set goals, the concept and the perception of the game, we have tested it with the Slovenian students. Testing in Slovenia has taken place in two phases:

Phase 1 (32 students in 4 groups):
Basic + Hidden Goals (B + H),
Basic + Hidden Goals + Special Skills (B + H + S).
Phase 2 (12 + 9 students):
B + H + S with roles and a board in front of players,
B + H + S with roles and a board at the main table.

The students' gameplays were analyzed from three different points of view: (1) an analysis of the results obtained through observation forms during the gameplay, (2) an analysis of the results obtained through post-game questionnaires, and (3) an analysis of the results of the interviewing students. The results were obtained from four different categories: (1) demography, (2) game mechanics, (3) learning outcomes, and (4) game perception. In this chapter, we focus on some interesting questions and results related to learning outcomes. This research was qualitative and quantitative. The data collection took place from December 2018 to March 2019. The results of learning outcomes were summarized in particular tables (in our elaboration: MB, SJ & JR): *gaining more collaboration skills* (Table 4), *communication in the group* (Table 5), *communication between the groups* (Table 6 & Table 7).

3.1.1. Gaining more collaboration skills

The players' opinion on the ability to collaborate increased from 70 % in the first to 92% in the last game. We attributed the lower percentage of collaborative skills at the beginning (although they were already high) to the fact that players didn't know the rules, the strategy, and even their teammates.

Table 4. Results about gaining more collaboration skills (in %)

Key	Phase 1 (N = 32%)			Phase 2 (N = 12%)
	Testing 1 (B)	Testing 2 (B + H)	Testing 3 (B + H + S)	
Yes	70	81	84	92
No	22	19	16	8

3.1.2. Communication in the group

A similar opinion about the previous question regarding the ability to communicate in the group increased from the first (75%) to the last match (92%). The reasons for this opinion are also similar to the previous ones.

Table 5. Results on communication in the group (in %)

Key	Phase 1 (N = 32%)			Phase 2 (N = 12&)
	Testing 1 (B)	Testing 2 (B + H)	Testing 3 (B + H + S)	
Very well	75	81	87	92
Well	22	19	13	0
Poorly	3	0	0	8

3.1.3. Communication between the groups

Similar results were obtained with this question. The players' opinion about the ability to communicate between the groups increased from the first play (47 %) to the third one (66%).

Table 6. Results on communication between groups in Phase 1

Key	Phase 1 (N = 32%)		
	Testing 1 (B)	Testing 2 (B + H)	Testing 3 (B + H + S)
Very well	47%	59%	66%
Well	53&	41&	34%

In Phase 2, in which an open question was posed, the results were better than in Phase 1. Three quarters (75%) of the students said the communication between the groups was great, good or challenging and competitive, while only one student (8%) said it was similar to the earlier communication, one student (8%) said it was different and one student (8%) said there was not much communication.

Table 7. Results on communication between groups in Phase 2

Key	Phase 2 (N = 12%)
Awesome	8%
Well	42%
Challenging, competitive	25%
Similar	8%
Different	8%
No much communication	8%

3.1.4. Multiculturalism and intercultural communication

Subsequently, we attributed the low scores on this question to the fact that all students were from the same country and therefore did not see the true importance of multiculturalism when playing. Cf. Table 8 (in our elaboration: MB, SJ & JR).

Table 8. Results on multiculturalism and intercultural communication in Phase 1

Key	Phase 1 (N = 32%)		
	Testing 1 (B)	Testing 2 (B + H)	Testing 3 (B + H + S)
Yes	16%	3%	3%
No	84%	97%	97%

3.1.5. Cooperation and competitiveness of the game

A few students said that the game is cooperative with teammates, but somehow it would be necessary to stimulate everyone in the team to participate actively, to give everyone a role. Some of them said that the game is very competitive with other teams, while most of them agreed that the game is cooperative and competitive. They worked together in groups and competed with other groups.

- All students said that adding hidden goals did not change their opinion about cooperation and collaboration in the game.
- Some students responded that is even more competitive in addition to the special skills because if you have a poor special skill, you make even more efforts to win and try to show that you are better than others.
- Some of them also said that the game is a little more cooperative because you borrowed special skills and somehow you work with another team.

3.1.6. Feelings when losing (motivation to play again and win or avoid losing).

All students said that if they lose, it motivates them to play again until they win.

3.1.7. Observing the achievements of the learning goals/outcomes

We noticed that everyone in his own group worked together with teammates and communicated with each other. They had to find a way out in various conflicts or other complicated and unforeseen situations. Students used different strategies, trying to find a way of playing that

gave them the most points. They have also assumed the moves of other players based on their previous play.

The addition of the hidden goals and special skills did not change the process of achieving the learning goals. The players still collaborated, communicated, planned their strategies, and solved problems. There was more non-verbal communication in the groups because they used hidden goals. The players tried to find out which hidden goal the opponents had and whether their hidden goal was worth the effort or not. Communication between the groups was more intense when playing with special skills, as the groups helped each other to understand the borrowed skills.

3.1.8. Observing the communication between students

The communication during the first gameplay was good. Since it was the first round of the game, the participants did not know how to react in all situations. There were a few moments of lack of communication between the players.

The communication was much better in the second play of the game. The players got used to each other and had no problems with mutual cooperation; they asked each other different questions, made insider jokes, etc. They tried to hide their hidden goal and plans from the others. The communication was still good in the third play, the players knew each other, they used much more non-verbal communication. They already knew which strategy to use.

3.1.9. Observing the collaboration between students

In the first play of the game, collaboration was good, but it was obvious that some of the players were meeting for the first time. They hid their moves and did not collaborate with other groups.

In the second play, participants get used to each other. They showed more collaboration skills in the group, they developed strategy and tactics together. They showed their competitive personality characteristics and characteristics for which the rule is that they want to win and let others lose the game.

In the third play, collaboration was still good. The players developed deep collaboration skills within their group and between other groups.
Once the tests in all four countries were completed, we first carried out individual analyzes by country and then a joint analysis. We examined the students' suggestions, considered useful suggestions and applied them in the game.

3.2. StoryLand of Options

StoryLand of Options (SLO Game) is a role-playing game inspired by various geographical, economic, cultural, and historical features. The player has to cooperate with his fellow players, famous Slovenian people, from different regions, follow the roads of Slovenia and find the missing parts of the map through different missions. The success of the player depends on his imagination. Accordingly, the main learning goals of the game are:

- Students increase their general knowledge of Slovenia and Slovenian culture; Students practice and develop communication skills in English;
- Students practice and develop intercultural awareness and tolerance for differences: different perspectives and points of view, observation, empathy, etc.;
- Students improve their decision-making skills and increase their ability to take practical and effective action, etc.;
- Students practice and develop collaboration skills in English.

The goal of the game is to collect all pieces of the map with traveling from the players' starting positions to the final destination, the capital of Slovenia, Ljubljana. Each player has to collect 5 pieces of the map on his way. At each of the five steps, the player has to create a story where he continues the Slovenian fairy tale. He also has to include the characteristics of his character, the characteristic of the place where he is located, and hide the drawn world.

The SLO Game has been tested in Wroclaw, Poland, with 38 students from Poland, Romania, Norway, and Slovenia. The students' play is analyzed from two different aspects - an analysis of the results obtained through observation forms during the gameplay and an analysis of the results obtained through the questionnaires, filled in by the players after the game. The results were obtained for four different categories – demographics, game mechanics, learning outcomes, and game perception. In this article, we focused on some interesting questions and results regarding *learning outcomes*.

This research was qualitative and quantitative. The data collection took place in September 2019. In subsequent tables (in our elaboration: MB, SJ & JR), we present only the results concerning the learning outcomes based on questioning and observing: *work of the team on building the story* (Table 9), *finding hidden words in collaboration with other teams* (Table 10), *communication within the team* (Table 11), *development of different skills by playing the game* (Table 12).

3.2.1. Work of the team on building the story

One of the important aspects of our game is the development of collaboration and communication skills in English within a team. The students gave top grades to the team's work on building the story, which means that this aspect was included in the game.

As we observed the students during gameplay, we noticed that they "connected" with their colleagues, that they created stories together, that they agreed which player from the pair would choose the card and the story, who will tell the story in each round, etc.

Table 9. Results of team work on building the story

Rate	N = 38%
Rate 5	53%
Rate 4	32%
Rate 3	11%
Rate 2	3%
Rate 1	0%
No answer	3&

In the teams where some students did not communicate as much with their partners, the other players were more active and took the initiative to develop the story.

3.2.2. Finding hidden words in collaboration with other teams

In the work of a given team with other teams to find hidden words (when no one has found the appropriate word), we have tried to encourage the collaboration between the groups. If none of them found the appropriate word, all groups collaborated to find the word together. Most students rated this aspect with high grades, but there were also students who did not see this aspect as successful as others.

Table 10. Results about finding hidden words in collaboration with other teams

Rate	N = 38%
Rate 5	29%
Rate 4	39%
Rate 3	16%
Rate 2	13%
Rate 1	0%
No answer	3&

We expected the groups to cooperate more with each other, but as we watched the play, we realized that this aspect was not the best option to encourage cooperation between the teams, as the students did not communicate as much as we expected.

3.2.3. Communication within the team

One of the goals of our game is to develop communication skills (in English) and we can see that most students found the communication in their team excellent. In observing the students, we found that they had no problems with communication within their team.

Table 11. Results on communication within the team

Rate	N = 38%
Rate 5	58%
Rate 4	26%
Rate 3	8%
Rate 2	3%
Rate 1	0%
No answer	3&

3.2.4. The development of different skills by playing the game

With this question, we wanted to check what skills we were promoting with the game. All skills were linked to learning goals of the game.

Table 12. Results on the development of different skills (in %)

Rate	N = 38&					
	cultural awareness skills	communication skills	collaboration skills	strategic thinking skills	decision making skills	fluency in English
Rate 5	39	63	63	26	39	63
Rate 4	24	32	24	34	26	29
Rate 3	26	5	13	11	13	5
Rate 2	3	0	0	18	5	0
Rate 1	8	0	0	3	5	3
No answer	0	0	0	8	11	0

The students found our game useful for developing collaboration and communication skills and improving their English language skills. We

see slightly lower grades when we asked them about cultural awareness, the development of strategic thinking skills, and decision-making skills.

While observing the students, we noticed that the cultural awareness was not so emphasized or noticed by the students, although they built a map of Slovenia, played the role of famous Slovenian people, and created stories based on some traditional Slovenian stories and places. We also noticed that some of the students did not think of the game as a way to develop strategic thinking when playing the game. We also saw that the students did not realize that they were making choices in every turn when creating/continuing their story. The results will help us to improve the game. We will take useful the students' comments into account and together with our ideas to improve the game so that the game achieves all the learning goals set at the beginning.

4. Conclusions

The main purpose of the article was to examine what learning outcomes, skills, and competences students gain from using games. The learning objectives in the two games we were involved in developing the Hex and RPG game, can be classified at the highest taxonomic level, create, in Bloom's taxonomy.

In the *Planet Hexagon* game, the students plan, construct and try to develop the most successful strategy possible to win the game, while in the SLO game they create a story that is entirely the result of their imagination. By playing the games, students also acquire different types of skills - knowledge-based rules, procedural knowledge, and the so-called soft skills, in which they develop team communication, collaboration, decision-making, and strategy development.

By testing the games, we realized that we had achieved all our goals. The only area where the results were slightly worse was intercultural awareness in the hex game, which is due to the fact that all the students in our tests came from the same country. This deficiency has been resolved when we later tested the game with students from all four countries. The resulting games are well suited for use in the classroom, as students not only develop 21st-century competences with them but also have a lot of fun during the game.

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Using games as a method for learning multicultural competence in teacher education

ABSTRACT. In this chapter, we look at how the students rate the learning of different skills during playing the *Planet Hexagon* game, a strategic hex-game developed in the *Gamestorming for Innovative Teaching* (*GameIT*) project. The game has been developed to teach the students different skills regarding cultural awareness, communication, collaboration, strategic thinking, decision making and English language skills. In particular, we focus on the skills regarding cultural awareness and multicultural competence as this is one of the main goals of the *GameIT* project. We define multicultural competence as dealing with cross-cultural competence with three aspects; intercultural consciousness, cross-cultural understanding, and intercultural communication and see games as a method of teaching the students various skills in an imaginative environment. As the results show, the students think that one can develop cultural awareness skills while playing *Planet Hexagon*, but not predominantly so.

KEYWORDS: game as a method of teaching, cultural awareness, multicultural competence, teacher education

1. Introduction

The *Gamestorming for Innovative Teaching* (*GameIT*) project aims at giving the students relevant skills and competences needed for working in our diverse world and incorporates the New Skills Agenda for Europe, which addresses the development of skills and competences at a high level. These skills and competences include; communicating in a foreign language, creative thinking, adaptability, ability to work in a multicultural environment, and cultural awareness. The project follows the human capital development policy adopted by the European Union.

The main goal of the *GameIT* project is to improve the quality of didactic methods and tools by designing and implementing innovative cooperative games developing a selection of competences valuable in the 21st century labour market. In this chapter, we look at what skills relating to multicultural competence the student report can be developed while playing *Planet Hexagon*.

2. Background

As mentioned, multicultural competence has been one of the expected learning outcomes for the *GameIT* project. So, being engaged in the process of developing the *Planet Hexagon* game, we have developed 12 different civilizations basing on intercultural theories discussed by Øyvind Dahl (2016), Ane Bergersen (2017), making reference to the sociology of Anthony Giddens (1991). We have described some key values, norms and rewards for each civilization being inspired by ideal-typical societies on earth. To limit the options and to make the game more player-friendly, we end up with four civilizations. The four civilizations are the Urbanides, the Arboretans, the Lupidians, and the Harvesters.

Following Giddens (1991), the civilization of the Urbinades is proposed to be described as basing on values and norms, which come from high modern societies. Additionally, a typical city-life is considered, where fashion, how the individuals look like and how they appear in public, seems to be important for the creation of their self-identity. As Dahl (2016) and Bergersen (2017) emphasize, everything moves fast, linear time-bound-interaction is related to low context communication styles.

The civilization of the Arboretans is compared with values coming from indigenous cultures like Indians, San, Sami, and Aboriginals. The key values represent here green values, like sustainability, long term planning, rationality based on care for humans and animals, togetherness and time spent is never wasted and it is non-linear. The Ubuntu philosophy, discussed by Ane Bergersen (2017) and Augustine Shutte (2001), can denote some key values and norms related to the Arboretans.

The civilization of the Lupidians is regarded as more imperialistic in their attitude and values. One can theoretically link them to modern societies from the industrial period until now, according to Max Weber (cf. here 1968 [1922]), discussed by Bergersen (2017) against the background of Giddens's distinctions (1991). They are materialistic, want to exploit others, to benefit in all situations, and their values and norms are based on pure liberal economy and self-necessity.

The last civilization, the Harvesters, is seen as a typical traditional society with farming and hard physical work as a daily routine, after Ferdinand Tönnies (cf. here 1957 [1887]), discussed by Bergersen (2017), in relation to Giddens (1991). Traditional society, *Gemeinschaft*, has values rooted in traditions, close to and dependent on nature, circular time, and high context communication. Typical farming and rural areas, far from the busy city life, could still be found today, but these values and norms were much more dominant in Europe before the industrial period. Many

societies in rural Asia, Africa, America, and Southern Europe have values and norms close to the Harvesters.

3. Multicultural competence

Multicultural competence is usually defined, in terms of Milton J. Bennett (2012; 2009), as dealing with cross-cultural contact in general. What Bergersen (2017) postulates here is the division of cross-cultural competence under three aspects; intercultural consciousness, cross-cultural understanding, and intercultural communication. Intercultural consciousness is the awareness of someone's worldview; cross-cultural understanding means to know his/her own historical and cultural background (values and norms) and the knowledge and willingness to understand people with a different background than yourself.

The last part, based on the research of Ane Bergersen (2017), and subsequently of Ane Bergersen and Gistered Muleya (2019), deals with intercultural communication skills, which include awareness of how the importance of context in communication differs and how verbal and nonverbal communication differ in meaning and importance. Intercultural and multicultural competence necessitate a change in the way people see themselves, and the world they live in. Critical consciousness of humans and the reflections, which reframe their worldviews, are key factors to achieve multicultural competence.

Intercultural consciousness, to be aware that all people have a worldview, and that they all have to make some choices about what they believe in, or not, is an important part of multicultural competence. In encounters with other people who challenge what they take for granted or ask questions, the individual persons find it hard to answer. What the individual persons need, they have to reframe their perspectives by opening their minds and listening to other people's points of view. Questions about religious or life orientation topics and what people rarely talk about in public can challenge them to reflect on their own worldview. When someone meets somebody whose opinions and actions he/she can hardly understand, he/she/they should not draw conclusions from their own worldview but listen to the explanations of other people to understand their point of view. In encounters like playing a game, what others do and say might challenge collaborating players to reflect on why they do think that something was wrong and later ask questions. When working with intercultural consciousness, collaboration in mixed groups gives a lot of opportunities to understand each other.

Cross-cultural understanding means not only to know about the other person's cultural background and history but also to know how to communicate with individuals who come from culturally and historically different backgrounds. To know which values are crucial and primary for people as well which norms they follow and how they themselves differ from the majority in their society are equally important questions. Cross-cultural understanding requires a person to look critically at his/her own background and to willingly learn from others from a culture-relativistic perspective. To build a bridge between cultures and civilizations is to make the communicating individuals responsible for adjusting themselves to the situations involving intercultural differences in which this bridge-building might contribute to a successful communication. To understand themselves, the participants of communication have sometimes to face the resistances and challenges from people who come from different cultural backgrounds. A reframing of the perspective, usually taken for granted, can contribute to an increase of cross-cultural awareness among communicators.

Appealing to Edward T. Hall's Beyond Culture (1976), Dahl (2016) and Bergersen (2017) propose to describe intercultural communication on a scale from high context to low context communication. High context communication is common in societies with big power distance, respect for authorities, patriarchy, and traditional and conservative values. Everything matters, therefore, who the particular individuals are, how they appear and how they communicate verbally and nonverbally, and where the communication takes place. Similarly, the communicational context is relevant, depending upon who the communicators are, and what kind of relations between them exist. In high context communication situations, the communication is usually indirect, in many rounds, and what is not said, can be of more importance than what is actually said. Generally, a person's position in high context communication situations determines what, when, and how a given person can communicate with other persons.

On the other hand, as Dahl (2016) and Bergersen (2017) argue, the low context communication can be described as a kind of interaction in which the context does not matter, and in which the communicating persons interact freely without considering the status, gender or the relationship among them. The respective communication can be very direct, linear, straight to the point, efficient, and with limited politeness. Important is mainly what the person says, depending not much from the inference about what is said between the lines, i.e., what is to be interpreted from nonverbal clues to avoid the waste of time. The low context

communication is characteristic for societies, which are egalitarian, gender equal, instrumental rationale, putting a strong value on efficiency, and where technic and maths are highly ranged.

Intercultural communication competence takes place when individuals are aware of their own communication style, as a person, as a member of a certain speech community, and how much they take for granted that other individuals communicate in the same way as they do according to the importance of a given context. To reframe their own perspective and reflect on why miscommunication can happen, they should reflect on their own communication style, taken sometimes for granted. If they are used to a low-context-communication style, they might find it very difficult to understand why some other people pay so much attention to variables of communication for reaching a point of mutual understanding. They might behave in a rude and dishonest manner in relation to others even without knowing the principles of interpersonal politeness.

The opposite position is occupied by individuals interacting in a high context communication culture who might know how to avoid mutual misunderstandings or who take for granted that what has been said in an indirect way expresses the meaning, which much stronger and "worse" as to the communicative effect beyond the direct words. In such situational contexts, the expected time has to be considered when the individual needs and the social requirements to be intersubjectively comprehensible may constitute an additional cause of frustrations. In all kinds of such communicational encounters, such as playing board games, the ability to reflect on different communication styles can contribute to the increase of the knowledge about favorable conditionings of dialogues among cultures. Through the exchange of theories that pertain to role-playing games among representatives who come from distinct cultures, the participating players might strengthen their awareness of how intercultural communication is often linked to their social position and their civilizational status.

4. Learning through the team-based board game of *Planet Hexagon*

Games give the learner an imaginary environment where they can explore different strategies and learn different goals. In learning through gameplay, mistakes are turned into learning in a safer environment as this is not real life. Besides, games can make learning more fun.

The objective of the *Planet Hexagon* game is to build four colonies using different hexagonal tiles. The tiles represent different terrain and structures such as farmland, water, forest, and public buildings. The players are divided into four civilizations and the players within each civilization are given different roles; supplier, builder, and emissary. The different civilizations have different assets, and different goals that will give them points at the end of the game. The game is led by a gamemaster who is the teacher. In our study here, not only the comments from the gamemasters but also from observers are included.

As mentioned earlier, the game is aimed at developing creative thinking, communication, English language, intercultural awareness, and cooperative skills. The target group of the game constitutes students at a higher educational level from different subject areas where the learning of the goals mentioned are important.

Ten students from the Philological School of Higher Education, Poland, University of Ljubljana, Slovenia, the University of Bacau, Romania, and nine students from the Western Norway University of Applied Science participated in the testing of the Hex game. Eight external observers took also part in the testing activities, some of them were teachers from involved local and foreign institutions, some of them assumed the role of gamemasters at the same time.

The students tested the game in two phases. Phase one pertained to the developmental part of the game during which the aim was to get feedback from the students mainly on playability and technical issues of the game, but they were also asked questions about learning goals. In this phase, the students tested the game in their national groups over several weeks. The organizations of testing were conducted in a different way at the respective institutions, but all involved teams executed it in form of extra-curricular events.

In the second phase, the development of the game was finalized and the students tested the game four times attending the *GameIT: International Intensive Study Program, September 23–27, 2019*, in Wroclaw, Poland. In this phase, the students were divided into international groups and played with different students each time.

5. Presenting the conduct of research and its results

From the first phase of testing, the student answers were mainly gathered around the playability and technical issues of the game. They did however report that they gained skills in collaboration and in general communication. Only a few students from Romania, according to the

report of Hege Gjerde Sviggum (2019), said they had learning outcomes regarding multiculturalism and intercultural communication,.

After phase one of testing, more effort was then put into the development of the game in order to reinforce the level of the acquisition of various skills, with special reference to multicultural competences. A greater focus was given to the background story of the game and to the understanding of differences among civilizations. In addition, there was further developed into the different modes the game can be played.

From the responses in phase two, we could gather that the students reported how they felt in the situation, in which it was possible to develop more skills during the gameplay. The students were asked to answer the question *What skills can be developed by playing the game?* And to rate the different categories from 1 – the lowest to 5- the highest.

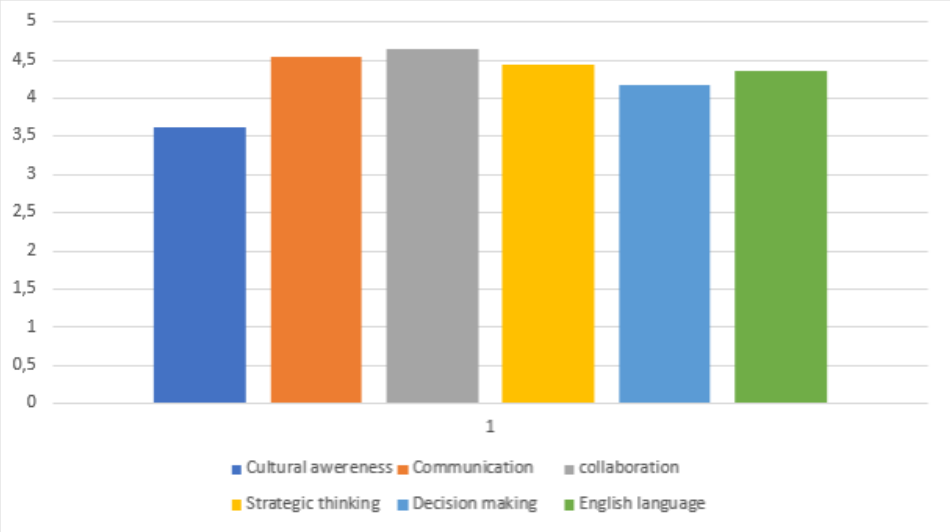

Figure 1. Students replies to the question of the development of skills

The five categories were as follows: *Cultural awareness* (understanding other cultures, working in intercultural teams, representing different civilizations in the game, etc.), *Communication* (expressing opinions and presenting arguments and discussing while playing, negotiating regarding next move, etc.), *Collaboration* (working together with all team members while making next move, deciding on where to put the tile, what to observe while looking at other team boards, etc.), *Strategic thinking* (building strategy during the game, thinking about where to put the

nest tile and why, when to use a special skill, etc.), *Decision making* (deciding where to put the tile under pressure, etc.), and *Fluency in English*.

As we can see in Figure 1 (elaboration is ours: AB & HGS) communication and collaboration are still the strongest skills, which the students feel they have developed. In addition, English language skills score high (this was not a relevant skill during the first testing phase due to the testing being conducted in their native language) Also, the other learning goals relating to game play got a high score from the students. Developing cultural awareness is the skill that scores the least. Here also, three of the students gave this learning outcome two or one score whereas, as regards the other learning goals, only one student evaluated it with two or fewer scores in *strategic thinking* and in *English language* skills.

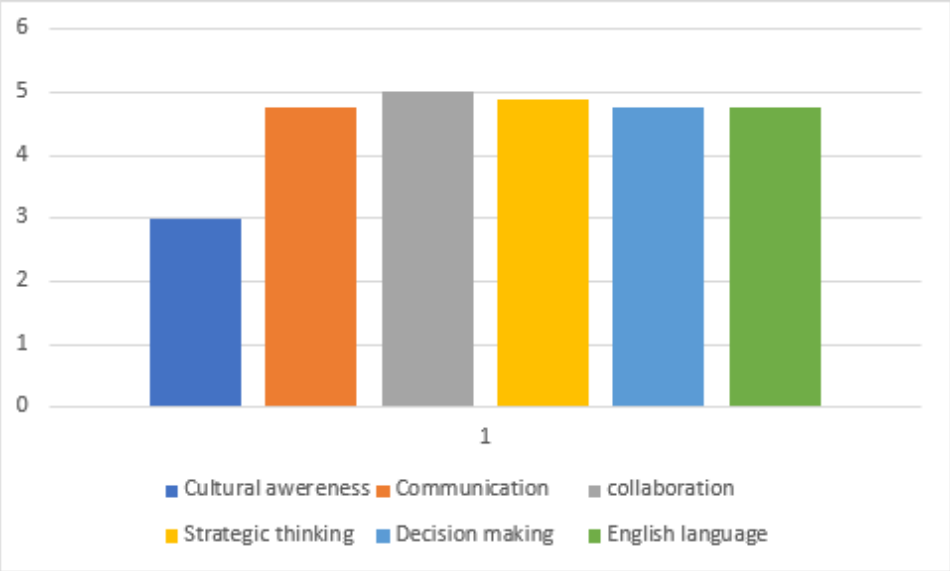

Figure 2. Observers replies to the question of the development of skills

In Figure 2 (elaboration is ours: AB & HGS), we can see the responses from the observers (and gamemasters). We may notice that they have less confidence than the students when it comes to developing skills relating to cultural awareness. Four of the observers gave a score of two or less, one gave the score three and the rest gave it score five.

What is noticeable, even though the students are more positive after the final testing phase regarding the development of different skills, training cultural awareness for the advancement of multicultural competence, still scores less. We can also observe this in keeping with the replies from the observers.

Multicultural competence is complex and most likely demands continuous work over a period of time. We can see from our results that this game might not be the best elaborated for developing cultural awareness, both students and observers find the game a good environment for developing skills relating to the other goals; communication, collaboration, strategic thinking, decision making, and English language.

By using a game for developing skills relating to multicultural competence, participants would most likely require to play the game several times as far as learning it demands time, indeed. In addition, the game needs to be put in a certain context. Using games for learning requires a great effort also from the teacher. We believe little will be learned if we just give the students a game and tell them to play. Planning and preparation for the game will, therefore, be of high importance to make sure the players are aware of the learning content of the game. This will also make the students more prone to reflect upon one's own learning.

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"Signing the pact with Devil Boruta" – Teaching Polish culture in the world of role-playing games

ABSTRACT. The metaphorical part of this chapter's title alludes to one of the games included in *Polonia Misteriosa* (Bieszczanin & Juźwin *in prep*.) as an outcome of the *GameIT* project. Its aim has been to achieve a few objectives simultaneously, firstly to present certain aspects of the Polish culture to both Polish nationals and foreign students in an entertaining way, secondly, to improve oral communication of all players by increasing fluency in English, and thirdly, to encourage effective cooperation among people representing four countries taking part in the project. In addition, the game has been designed to help the players develop soft skills, essential in a contemporary working environment. The current chapter presents the consecutive stages of game development, facilitated, on the one hand, by the authors' strict adherence to a comprehensive model of the cooperative role-playing game, written by the Slovenian team, which served both as a guide and an inspiration in the creative process, and on the other hand, acquiring hands-on experience: taking part in role-playing games with both professionals and amateurs prior to the completion of the project. Viewed from the telic perspective, designing a role-playing game suitable for college or university-level students presented a considerable challenge for the authors. *GameIT: International Intensive Study Program, September 23–27, 2019*, during which the game was played and tested, confirmed that it could be used as a viable didactic tool in a college classroom.

KEYWORDS: role-playing game, game design, playing characters, non-playing characters, gamemaster

1. Revisiting the telic phase

The idea of creating a role-playing game aimed at college or university students is yet another attempt at achieving desirable learning outcomes and building meaningful relationships between the instructor (lecturer, teacher) and learners. As Paweł Hostyński (2009: 85–86) observes, academic teachers tend to distance themselves from their students, focusing solely on the content they plan to teach. The author states that this hands-off approach might turn out to be a serious pedagogical mistake, since students, encountering an aloof lecturer are likely to dissociate themselves from the group, as well as the course itself. The results are easy to predict: poor learning outcomes, for which there is plenty of anecdotal evidence.

Quoting Carl Ransom Rogers (1961), Hostyński (2009: 85–86) states that interpersonal relations between the instructor and the student are central to all learning and goes as far as to say that the content of the course is likely to be completely ignored if the lecturer refuses to get personally involved. The main title of Rogers's work *On Becoming a Person* suggests that the real and most desired outcome of all teaching process should be having the students achieve their full potential. One might argue that if such an approach were adopted, this would lead to the inevitable conclusion that content is secondary in the process of education. Although this observation seems disputable, there is some value in Rogers's observations.

Common knowledge has it that students do need a better relationship with their lecturers if they are to learn anything and stay motivated throughout their college years. It goes without saying that helping them to do it is not an easy task. Role-playing games might be useful in establishing a more informal relationship between the lecturer and his/her students. The games might prove to be necessary to bridge the generation gap, which seems to have grown wider than ever before, with young people frequently more adept at using digital tools than their teachers. A role-playing game taking place in the classroom, and outside the digital environment, could restore the necessary balance between the virtual and the real world and develop a better relationship between the instructor and the learner.

Whereas establishing a great relationship between the lecturer and the learner might be one of the desirable outcomes of the teaching process, it is certainly not the only one, since according to the project documentation, four such games were to be created by four national teams participating in *GameIT*. Each game was to be set in the context of a particular culture, therefore it stands to reason that the goal of the game was to present the most interesting and/or characteristic aspects of this culture and teach students about it. Since the game was to be used with students of different national backgrounds, including the one that created it (Polish, in our case), it had to be both universal and local in order to appear attractive and understandable to Polish students as well as others. In fact, the ambitious goal was not only to increase the students' motivation – though it seems to be *sine qua non* of all teaching and learning – but also increase their familiarity with a particular country and its culture. Secondary goals, essential in all learning, were also taken into consideration.

Apart from the most typical general goals, there are (expected) others, listed in the project documentation, all of which imply greater stu-

dent involvement in the learning process and greater familiarity with the culture, which provides the background for the game. Playing it is supposed to "motivate the students to participate in intercultural education[,] develop empathy[,] develop… perspective switching, observation, empathy, taking practical and effective actions" (Erasmus+ Application Form. Call 2017: 46). Students should learn "to cooperate and compete, depending on tasks required in the game acquire intercultural knowledge" (Erasmus+ A1 Telic Phase). It must be added at this point that students who were to participate in the *Intensive Study Program* represented different nationalities and majors, which means that their own priorities differed.

In addition to the overall goals, some of which are listed above, there are observable learning outcomes listed in the project documentation; these present expected results of the teaching process. One learning outcome, which has not been discussed so far, deserves special attention since it remains an undisputed priority for students of different majors, but especially the Philological School of Higher Education in Wrocław students (WSF), who want to achieve fluency: developing better English language skills; this is often a welcome side effect of many role-playing games, including those played online with players from many different countries.

Moreover, in accordance with Erasmus+ A1 Telic Phase, students participating in the role-playing game need to and are expected to learn the following: the ability to analyze "short messages/longer texts at various proficiency levels" and become acquainted with "English vocabulary and idioms pertaining to a wide range of topics, with an emphasis on gaming, storytelling, culture, history, and geography". Since intercultural communication has become a necessity in today's business, educational and professional environment, students should also learn to "participate in a debate, discussion, exchange of views about various topics and performed tasks" related to the action taking place in the game. Furthermore, since the game itself consists in cooperation with other players – in fact, a positive outcome of the game is impossible without teamwork – all players, regardless of their own personal characteristics and limitations, are obliged to take into consideration the traits and personal aims of others while being aware of their own assumed weaknesses which are part and parcel of each character in the game environment. Since there is a real person facing others in real-time, students learn quite a lot about each other during the game.

At this point, one might pause to ask about the content itself. With all the favorable conditions, so conducive to active learning, what exactly do

the students participating in the game learn? According to the document presenting the telic phase, the observable learning outcomes are supposed to be slightly different for students of Polish ethnicity and foreigners, most of whom are generally quite unfamiliar with Polish culture. It might seem that for most Polish students the game is a futile exercise since Polish culture is the one they grew up in and the game might not provide any new information about it or challenge – consequently they might not be tempted to walk over the familiar ground or revisit the stories from their early childhood or elementary school.

As we have discovered during the *Intensive Study Program*, this concern is ungrounded for the following reasons: (1) currently Polish students are generally less familiar with Polish culture than previous generations; it might be due to the fact that although their formative years passed in Poland, the country has become part of the global village. Therefore, many aspects of Polish culture are still unknown and waiting to be explored; (2) Even if Polish students are familiar with Polish culture, they often perceive it – paradoxically – through certain stereotypes, often repeated by mainstream media. Since, as is generally agreed, the media play a disproportionate role in shaping young people's opinions, they often teach stereotypes, which are easily understood and frequently reproduced. Without being conscious of having been manipulated or even duped, Polish students are often unaware of the value of Polish culture; (3) Having been besieged by those distorted images (stereotypes), students do not often know how to present Poland in an attractive way to foreigners visiting our country, which might prove to be a serious handicap if they are to work with groups of international tourists and other visitors. Many of the so-called service recipients in Poland do not have either time or resources to study Polish culture in detail. Their means are limited and the attention span is short, therefore it is necessary to attract them by engaging them in a game that will prove to be both informative and entertaining without too much of a cognitive load.

Before Polish students are ready to do that, however, they must ask themselves the question about the suitable form and content of such a cultural presentation. For those WSF students, who plan a career in business or in the tourist industry, such a presentation has great advantages. The game can be used as an informal and unconventional way of presenting Polish culture; the stories which are part of the gamemaster's version of the game also serve as a reference guide for those who would like to learn more about Poland without engaging in serious and time-consuming research.

In their article, Matej Zapušek and Jože Rugelj (2014: 662) mention another goal, which is relevant only for those who wish to become teachers. This applies to some of the WSF students; those participating in the *Intensive Study Program* of 2019 fall into this category. While creating (not playing) a game, students improve "the competences that are crucial for teachers. Such competences include the ability to determine learning objectives that are consistent with the curriculum, the selection of appropriate teaching approaches and their implementation in the learning process, preparation of feedback, evaluation of acquired knowledge and evaluation of the learning process".

Having discussed the game from the perspective of a Polish student, I must now turn to foreign participants of the game. A careful analysis of the learning goals and learning outcomes for students of other ethnic backgrounds, as presented in the telic phase, proves that many of them appear to be quite similar to those written in reference to Polish students. Foreign nationals are expected to learn enough about Polish culture to appreciate its value and respect it; after playing the game, they will not be ready, however, to present it to anyone else; admittedly the game does not have enough educational content to prepare foreign nationals for such a challenging task. It would be sufficient if the students, who have participated in the game (or other players) or have read the texts upon which the game is based, were satisfied with the presentation, showing their willingness to learn more about the Polish culture, and, at the same time, having been attracted by the content and/or the game. It might be a mistake to assume that students are naïve enough to treat the games as a reliable source of historical knowledge.

In their article, Kevin O'Neill and Bill Feenstra (2016) stress that, whereas ideas students develop playing games in an extracurricular context are worth a separate study, they generally come to view games as a source of entertainment, therefore do not attach much significance to the content. Moreover, the authors state that studies have proven that, while many students enjoy playing history games, they do not necessarily learn much from them, being understandably suspicious of commercial computer games with professional visualization. In the public eye, the trustworthiness of the game is limited by the fact that it is a market-oriented product. Thus, foreign students or other foreign visitors to Poland might be expected to view the content of the game with a healthy dose of skepticism. The goal of the game should not be to teach them anything really serious about Polish history but rather to expose them to Polish culture so they perceive it as something amusing, attractive, and worth further exploration.

2. Role-playing games in a constructivist paradigm

In "A comprehensive model of a cooperative role-playing game", Jože Rugelj, Sanja Jedrinović and Mateja Bevčič (2018) provide both a theoretical background of game-based learning and a thorough, step-by-step model of creating a role-playing game suitable for classroom use. According to the model presented in the article (2018: 10–12), games have always been important in pedagogical practice, but have recently acquired an even greater significance because of the popular constructivist approach to learning, in which, the learner is to assume a much more active role than before in his/her own construction of knowledge. This approach has also resulted in changing the teacher's role. Instead of providing ready-made answers, teachers are nowadays expected to select appropriate content and/or create such learning environments that will stimulate learners to find solutions for themselves and by themselves. In other words, such an approach marks a departure from behavioral theories of learning in which students are given rewards for correct answers, towards problem-based learning, where students are expected to be more active than before.

Consequently, many games are developed as life-like stories, in which students take certain roles. In these alternative realities, problems are to be solved as they arise. Rugelj, Jedrinović, and Bevčič state that role-playing games present "powerful constructivist learning environments" (2018: 11). This is due to the very nature of those games: learners have to play certain roles, which means that they are behaving as if they were a particular character. While portraying a particular person or creature – who might be very different in terms of sex, age, nationality, etc. – players are also exposed to various points of view. During the game, they also encounter other characters with whom they are forced to cooperate. Since the game might get extended in time, learners see clearly the consequences of their own actions as well as an element of luck. In order to achieve the goal set at the beginning by the gamemaster – players must interact with one another and join forces when facing danger coming from non-playing characters (NPCs), from places in which the playing characters (PCs) find themselves during the game or from the situation set by the gamemaster. All of the above factors make them unite and frequently discuss the optimal course of action.

3. Choosing the best story for the game

Having all this in mind, one has to answer the basic question: how to create a game that will allow the teachers to achieve desired learning outcomes while presenting Polish culture in a limited time and with limited means? Both the model created by Rugelj, Jedrinović, and Bevčič (2018: 22–24) and popular "how-to" guides in Wikipedia emphasize the importance of a compelling story, which will hold the player's attention and encourage him/her to play the game many times. Nevertheless, before the question above can be answered in a satisfactory way, one must also become familiar with entry requirements as well as pre-requisite competences of the learners willing to participate in the game. Whereas many commercial games are advertised as suitable for all, regardless of age and previous gaming experience, this game has to be aimed at those who speak English at the B1 level or higher, according to CEFR. The learner must also be open to communication and learning about other cultures, since during the game he/she may observe different interpretations of well-known facts and new approaches to problem-solving, different from those characteristics of his/her own culture.

In their methodology, Rugelj, Jedrinović, and Bevčič (2018: 21–22) stress that designing a role-playing game does not always follow a "fixed design process", which simply means that one does not have to take the same steps in the same order so as to achieve the desired end result. Nevertheless, they cite the main ingredients of the game which ultimately appear in the end product. The first step, listed by the above team is "choosing the topic, game universe and defining the game plot". Arguably, when this might prove to be the most difficult job, especially if the authors are faced with such a formidable task as presenting Polish culture to both Polish and foreign players. The definition of culture encompasses almost every aspect of life, therefore selecting those elements of culture which can be presented as unique and interesting but at the same time universal enough to be understood by people representing different backgrounds is quite a challenge.

Bearing in mind the idea that the game ought to be a suitable way of presenting Polish history at an international level, we, have proposed *Polonia Misteriosa* (Małgorzata Bieszczanin and Dorota Juźwin *in prep.*) that seemed quite compelling for this purpose. We have taken into account at least three assumptions. First of all, that out of the four countries participating in the project, Poland, as an independent state, has had the longest history. Secondly, that this history remains relatively unknown even to Polish nationals. Thirdly, that the game might be a good chance to expose those aspects of history which seem worth re-

membering but which tend to be been forgotten. Based on our own observations as well as anecdotal evidence, our team concluded that many visitors to foreign countries are interested in history – and they often go places where strategies of presenting their histories in an attractive way have been developed without the necessity of being a resident in those areas – for example, France or Great Britain. However, after some consideration, and with great regret, we rejected this idea. The main reason for that was a well-grounded fear that presenting the Polish history would mean mentioning such tragic events as the partition of Poland in the 18th century or World War II, which many students associate with genocide and total destruction. In addition, the struggle for independence, which took place mostly in the 19th century remains a controversial topic even among Polish historians, some of whom view it as an unnecessary sacrifice. We definitely wanted to avoid presenting Poland as a martyr or a victim because such an approach might discourage people from playing the game. This common-sense decision, unsupported, however, by any independent research, turned out to be good, since students, as O'Neill and Feenstra (2016) mention in the article, do not perceive games as a reliable source of historical knowledge, so it does not make sense to include push such content in the role-playing game.

The next idea was to present Polish customs or Polish folk culture – but here we were in danger of reinforcing rather than breaking national stereotypes and our team wanted to avoid doing that. Presenting the so-called typical Polish attitudes, we might be doing injustice to our own ethnic group. Since the game *Polonia Misteriosa* (Bieszczanin & Juźwin *in prep*.) was supposed to be about having fun, it would be not only futile but also counterproductive. Besides, it might turn out that the customs we view as characteristic of Poland can also be encountered in other cultures; then we would fail to advertise our culture as unique and worth exploring.

Having rejected those aspects of Polish culture, we were faced with a dilemma. After some consideration, and having participated in a few RPG sessions taking place in Wrocław, our team decided that the best idea was to present the world of Polish legends, as a series of background stories for the game universe. This seemed to be the right idea for the following reasons:

There are a lot of legends associated with different places in Poland, which would allow us to travel around the country during the game. Multiple legends used to create the game universe do not constrain the players. The gamemaster can choose or be inspired by any plot, or a part of it, without having to follow a particular story. In addition, this format

allows other teachers to use the game as a teaching tool for expanding the game. They can always add additional stories – and thus expand the game universe. The legends are all imaginary tales, therefore the players can go wherever their imagination takes them without the danger of distorting certain events from the history of Poland.

There are a number of complex characters in the legends, both male and female, both human and non-human, whom the players can impersonate even though the game is not focused on the geography of Poland, characters would have to travel to the most interesting places in the country and encounter various non-playing characters associated with those places.

As a set of different stories, the legends could be used in the same way as Howard Phillips Lovecraft's fiction is used. Many RPG players are quite familiar with *The Call of Cthulhu and Other Weird Stories* (Lovecraft 2011 /1926/) but the game based on this story encompasses other elements the writer's fiction, thus adding to the special atmosphere created by the author. New players are typically encouraged to read the story before playing the game. Our target group could be asked to do the same, especially that a booklet with legends (translated into English and rewritten to be adapted to the students' needs) is added to the game. This could be read – and hopefully, enjoyed by those who would decide to play the game.

Having decided that the legends included in *Polonia Misteriosa* (Bieszczanin & Juźwin *in prep*.) were, in fact, appropriate material for our players, our team had to work on selecting the legends suitable for the game. Here, we also had to overcome certain obstacles. As it turned out at least some of the Polish legends are similar to the history of Poland – they are full of politically incorrect characters, e.g. Wanda who refused to marry a German and preferred to die. Some appeared to be reminiscent of the topics and stereotypes which are best avoided in an international setting; therefore it was necessary to eliminate some legends and censor others lest they might contain some undesirable or offensive material. At the same time, we did not want to make the stories too clichéd because they would not ring true and would quickly become too boring to look for the second time. Another problem was connected with the selection of legends associated with a number of places in Poland. Whereas those associated with Warsaw are known, at least to Poles, we did not want our players to be stuck in one place in the country, since playing an RPG game often involves moving from place to place.

The third problem that we encountered was connected with the characters in the legends themselves. In most legends (though not all) males dominate, so it was necessary to read through a lot of legends and select some with interesting female characters so that the players would be given a choice. This was a learning experience for our team because we discovered something that we had only half-expected before embarking on this task – namely that Poland has quite a lot of vicious female demons; many of those found during our research became part of the game. We hoped that the players would enjoy encountering some of them, e.g., Dziwożona is one of the most unusual demons in the game!

To put the players of *Polonia Misteriosa* (Bieszczanin & Juźwin *in prep*.) into the right mood, it was necessary to create a story that would account for the characters' travelling around Poland. The one that appears at the beginning of the game constitutes an introduction explaining why the characters have to travel around the country. We assumed that the story would be read or told at the beginning of the session since it provides the necessary setting for the game.

4. Defining the game system and game rules

According to the methodology, prepared by Rugelj, Jedrinović, and Bevčič – the Slovenian team (2028: 21), the second stage in the RPG design process is "[d]efining the game system, game rules and choosing the game mechanics". The task turned out to be challenging, since we were constrained by the requirements of the project which says (2018: 46) that "the game's complementary and universal character will allow its usage in a variety of specializations and study programs", which means that, regardless of the major, it is to be used in the classroom during a typical class session. One might argue that the problem with implementing such a complex game into the classroom is that learning the rules and discussing what the game is about would take up too much time and students, painfully pragmatic in their expectations, do not want to waste it on anything that appears useless; therefore it was necessary to incorporate such rules that could be acquired quickly.

Contrary to our expectations, however, most role-playing games have very complicated game systems. As in many other game environments, players gain or lose scores, use their attributes, acquire certain skills, and if there is combat, can get hurt or even die. It was thus necessary to create the mechanics which would be simple enough to learn and which would introduce an element of chance, characteristic of all games, regardless of type. Our direct inspiration was the game based on Howard

Phillips Lovecraft's *The Call of Cthulhu*, popular with many RPG players in Poland, namely Sandy Petersen, Paul Fricker, Mike Mason, Lynn Willis (2016 /1981/) *Call of Cthulhu Roleplaying*. Its mechanics, though not very simple in the original version of the game, can be simplified. As Rugelj, Jedrinović, and Bevčič (2018: 27) suggest, "the easiest way to create a game is to build it around a role-playing game system that the majority of players is already familiar with". Even though many of our students were not regular RPG players, we observed that the above-mentioned system did not require could be adapted to our needs. To introduce the necessary element of chance, we decided to use three types of dice in the game. They help the character make certain moves or stop him/her; this depends on the value of the rolls which is compared to the value of skills and attributes on character sheets. In addition, they determine the character's good luck or bad luck. Even though developing the mechanics is described as the second step in the design process, we kept working on it until the end and still modified it after the *Intensive Study Programme* in September 2019, in order to make it transparent and easy to explain in a limited time.

5. Developing playing characters (PCs) and non-playing characters (NPCs)

This is the third element listed in the methodology developed by Rugelj, Jedrinović, and Bevčič (2018: 21). This task was quite difficult for reasons discussed above when legend selection was described. To reiterate briefly, there were not enough female characters; in addition, it was often hard to decide which characters should be included in the game and which should not. Even though it seems like an arbitrary decision of the team, it was not exactly like that; first of all, the potential of each character had to be analyzed. In other words, we had to ask ourselves the following questions:

(1) Is the character human? (A non-human often became a non-playing character)
(2) Is the character useful in the game? How?
(3) What characteristics does he/she have?
(4) Is he/she dynamic? Will he/she act or does he/she prefer to remain passive (the passive characters were usually eliminated)
(5) Is he/she interesting and different from others?
(6) Where does he/she live? How is he/she connected with the place? Can he/she be moved without compromising the story?

As we read and selected the legends, we tried to make sure that each of them had the following elements: (a) playing character(s); (a) non-playing character(s), a description of the location where the legend is set. As in the earlier stages of game design, we were faced with some unexpected difficulties. For starters, many characters turned out too "good" to appear interesting and to be selected by either the gamemaster or the players. Making a character too positive might be suitable in stories for children, but, we assumed, would appear unappealing to young adults, who expect a greater complexity. In such a situation, it was either necessary to give the character up – in spite of the fact that we liked everything else about the legend and the place in which it was set – or flesh it out to make it more complex and thus more attractive to potential players. Finally, the following elements were included in the game to create a fully-fledged playing character (PC):

(1) a short description of the character with his/her legendary biography (if applicable). The description may also include his/her strengths and weaknesses, likes and dislikes,
(2) objects and/or animals that the character has – e.g., weapons, which might be useful in the course of the game, or animals, which might perform certain tasks. This part is presented in a table for quick reference,
(3) the character's motivation – this explains the character's most important objectives, what he/she should focus on during the game apart from the team's common goals. It may also account for the character's actions during the game. The motivation is also shown in a table for quick reference.

All of the above are included in the gamemaster's version of the instructions. Having participated in some RPG sessions, we decided that the players should get a role card, with the presentation of their character as well as a character sheet, which allows them to assign certain numerical values to the character's attributes. They are divided into three groups: those of body, mind, and spirit. In addition, players should also allocate numerical values to the character's skills. Both tasks require some planning and imagination, since players do not know the task set by the gamemaster and have no idea what the final challenge will be. There is only one constraint on the allocation of numerical values: the attribute called "power" may not be ignored; whether they consider it important or not, players must assign a certain value to it.

While taking part in certain RPG sessions in Wrocław, our team learned which skills are the most popular and the most necessary in the game. Admittedly, inexperienced players may have a little problem doing

that, since they are not able to predict which attributes or skills will be useful in the game. In *Polonia Misteriosa* (Bieszczanin & Juźwin *in prep*.), as in many other games, power is essential; in addition, in this particular game, it is also linked to the level of sanity. It stands to reason that a character, in order to be efficient and effective, should do his/her best to be powerful and preserve a high level of sanity until the end of the game.

Finding the balance between the text-based description of the character, which is given to the player at the beginning of the game as a role-card and his/her own creation was not an easy task since some players expect to be told exactly what to do in a game, having played, presumably, some games with inflexible rules, whereas others would like even more freedom than they could expect in *Polonia Misteriosa* (Bieszczanin & Juźwin *in prep*.). The latter group would like to create their own character from scratch. This option could not, however, be taken into consideration if cultural content were to be taught and transmitted at all; players would never learn about the characters of Polish legends. Thus, it was decided that at the beginning of the game players would have some time to develop their own character after selecting or being given by the gamemaster a role card. Here, the gamemaster's role is great: just before the game, he/she has to choose a number of PCs for the plot and goal he/she has in mind; the plot may be entirely based on the legends included in the game or may only be inspired by them, with the latter option more viable, especially in an international setting. As we, the authors of the game learned from experience we acquired during RPG sessions, those players who often participate in role-playing games often have a character in mind even before the game begins, having read a brief synopsis of the plot online. They enjoy fleshing out such a character at the beginning of the game, allocating certain numerical values to attributes and skills, and providing interesting details of the character's background, having thought about the character prior to the session.

When it comes to character development, the players fall into two broad categories: those who choose characters which are at least a little similar to them (including e.g. sex and age, as well as some special skills, such as playing a musical instrument), and those who try to create a character as distant from their own appearance and personality as possible. Anticipating this problem, the gamemaster should choose a certain number of male and female characters to give the players some freedom. As mentioned before, we had to take that into account, choosing a variety of legends with a variety of characters; in spite of the great abundance of material, it turned out to be quite a demanding task because many

characters represent certain archetypes and fall into the category of typical heroes or villains.

Non-playing characters (NPCs), which also act in the game, when encountered in a particular location, are pre-defined. They appear in the original text of the game and the players cannot develop them in any way, although the very encounter of a PC and an NPC can change the course of the game. It is the gamemaster who sets the non-playing characters in motion. Whenever a group of PCs reach a particular place in *Polonia Misteriosa* (Bieszczanin & Juźwin *in prep*.), after throwing the dice, they encounter a non-playing character. In this game, unlike in the methodology written by Rugelj, Jedrinović, and Bevčič (2018: 30), the NPCs are not systemically divided into major or minor types. It is the narrative of the game, and the goal revealed by the gamemaster, as well as playing characters' personal goals that make an NPC more or less relevant in the game. In many cases, the non-playing characters in *Polonia Misteriosa* (Bieszczanin & Juźwin *in prep*.) are quite spiteful and often hostile, but at the same time, they can offer some services or provide tools or weapons. Most importantly, however, they supply background information and teach the players about Polish culture. As Rugelj, Jedrinović, and Bevčič point out (2018: 30) "NPCs and monster, just as playable characters, provide a chance for further learning".

Choosing monsters and opponents from the original story enhances the game experience and adds details that motivate players to learn more about the game world and the tradition behind it". This might often encourage a player to read the text more carefully and compare a Polish legend appearing in *Polonia Misteriosa* (Bieszczanin & Juźwin *in prep*.) with a story in his/her own culture. Not surprisingly, dragons, devils, and nymphs are popular almost everywhere in Europe, but in each country, they have their own special features. The realization of this fact often provoked laugher and banter during the *Intensive Study Program*. The players would argue which dragon or another beast is the best or the most vicious; such light-hearted talk that makes the players learn a lot about each other's culture in a non-threatening atmosphere is an important outcome of the project.

To facilitate the process of game design, Rugelj, Jedrinović, and Bevčič (2018: 33) list nineteen questions that the creators of the game should answer before writing the complete game. Many of the answers have already appeared in this article, though not necessarily in the order listed here. Considering the overall scope of the game and the desired learning outcomes, we decided that in *Polonia Misteriosa* (Bieszczanin & Juźwin *in prep*.) the gamemaster would ultimately be responsible for

gameplay and he/she would lead the game from beginning to end. The decision was a pragmatic one. Taking into account the time frame, the cultural content, and the learning goals, it might be impossible to ask the players to assume additional responsibility. This is not to say, however, that there is no space for the players' creativity. While they do not fully control the course of the game, they participate in (re)creating the narrative and developing their characters, as described above. The gamemaster, on the other hand, is to do many of the things listed by Rugelj, Jedrinović, and Bevčič (2018: 31). He/she controls "the spotlight and attention of the group", and "is responsible for explaining, arbitrating and/or altering the rule". In accordance with the methodology (2018: 30), the gamemaster portrays both friendly and hostile non-playing characters. The most important role, however, is to prepare and develop the pre-selected story, adapt it to the characters appearing in the game as well as to the changing circumstances, and narrate the outcome of any conflict in the game.

Additionally, the gamemaster is the one who organizes the game and needs to prepare for the sessions, according to the instructions of the game. While leaving lots of room for on-the-spot decisions and spontaneous turns of action, the gamemaster must know the world in which the game is set, which means reading the gamemaster's version of the game prior to the session.

It might not have been clearly explained so far how characters are rewarded or punished for their actions during the game. Since the overall goal is determined by the gamemaster, and all characters must work towards achieving that goal apart from pursuing their own agenda, cooperation is always rewarded through progress towards the goal of the game and the lack thereof punished, since it might stop the group and even lead to the disintegration of the game. A good gamemaster, therefore, maintains control throughout the game to ensure that it does not happen.

6. The level of difficulty

The level of difficulty, according to Rugelj, Jedrinović, and Bevčič (2018: 21) is the next step in the design process. While making the decision about it, we had no doubt that the game should be as easy to explain as possible, which implied simple game mechanics, with as much cultural content as possible. The latter meant presenting the Polish culture in a way that would not be confusing or tedious for the players; therefore both the legends and the descriptions of characters are relatively short.

While playing RPGs in a professional setting, we could not fail to notice that players were often attracted by captivating plots, combat situations and detailed descriptions of the characters' personal stories and features. A similar interest, sparked by *Polonia Misteriosa* might lead the players to appreciate and explore various aspects of Polish culture, which is an important learning outcome of the project.

7. Time frame for a single game

When considering the time frame of the game, we were often baffled by the players' seemingly unlimited capacity to explore the world of the game and discuss what goes on in a particular scene. During role-playing sessions in Wrocław, players typically spend up to five hours on the game, though one group we met boasted of having played for forty-eight hours, taking only the most necessary breaks. During the *Intensive Study Program*, we were able to indulge in playing *Polonia Misteriosa* (Bieszczanin & Juźwin *in prep*.) for more than 1,5 hours, which means that according to Rugelj, Jedrinović, and Bevčič (2018: 32), our game was long. In order to meet the requirements of the project, it was thus necessary to set a time limit: 1,5 hours or a typical class session.

8. The number of players

Ideally, the number of players in the game should not exceed six, including the gamemaster. This statement is based on first-hand observations of the game, in which the main activity is talk; thus, one player's exuberant narrative would mean a long period of inactivity for other players. Predictably, they lose concentration and might start looking at their phones. The gamemaster, who is the only person controlling the narrative, must put an end to drawn-out speeches and proceed with an action. Since a typical group of students consists of more than five or six, a few solutions have been proposed by Rugelj, Jedrinović, and Bevčič (2018: 32). The first one is to make some people observe the game while others are playing. For the time being, we rejected this solution, assuming that just observing the game would not motivate the students to learn anything about the Polish culture – the observers might become too bored or frustrated by not being directly involved in the game. Another idea, proposed by Rugelj, Jedrinović, and Bevčič (2018: 32) was "to have multiple people play one character". We consider this option possible, though it has not been tested yet. Decision-making might force two

or three people playing the same character to discuss different options, stimulating their interest in the story itself, and forcing them to speak English fluently, which is an important learning outcome, especially for WSF students.

The next option, listed in fact at the beginning of the section (Rugelj, Jedrinović & Bevčič 2018: 32) is to train the gamemasters prior to the game session. We assume that such a solution would take a little time, but, on the other hand, some students enjoy having more say than a typical character in the game. Being the gamemaster would be an ideal solution for them.

Finally, Rugelj, Jedrinović, and Bevčič (2018: 32) suggest playing the game in one large group, with the whole class. Whereas such a solution is possible, it is far from ideal. This would necessarily involve turn-taking, which is common practice in many conversation classes and it might solve the problem of large groups.

9. Accessories for the game

Since many role-playing games, except for LARPs (Live Action Role-Playing) require few or no accessories, we decided to make *Polonia Misteriosa* as simple as possible (Bieszczanin & Juźwin *in prep*.). As mentioned in the instructions, the players get both role cards and character sheets. They need pencils and erasers in order to write and change statistics. As mentioned above, dice are needed; if the class is to be divided into small groups, it is necessary to buy a few sets prior to the game. An optional accessory, a large map of Poland (size A3) can be used if the gamemaster is willing and ready to show the characters where they are going in the game. The map does not, however, affect the gameplay; it is simply an additional source of information about Poland.

10. Game manual – instructions for the game

The final stage of the RPG design process, according to Rugelj, Jedrinović, and Bevčič (2018: 22, 36–37) is writing the game manual. *Polonia Misteriosa* (Bieszczanin & Juźwin *in prep*., Gamemaster's version), the document created by the authors of the game contains the following necessary elements:

– An overview of the game,
– Game mechanics - the instructions for the game, written as clearly as possible without compromising the complexity of the game. The second-person singular, you, is used.
– The introductory story which sets the players in motion – they begin travelling,
– Polish legends, adapted to the game and retold in English,
– A character sheet,
– A list of RPG places in Poland, with assigned numbers assigned,
– A description of all places (locations), followed by the descriptions of PCs (role cards) and NPCs encountered in those places,
– Sources.

The role cards and character sheets can also be printed separately. The dice, described in the manual are added to the game.

11. Development of the game

Having described, the RPG design process, Rugelj, Jedrinović, and Bevčič (35–37) proceed to the development of the game, which means reiterating all the steps described above and the process of creating the game manual. As the article shows, we followed these steps, while constantly striving to improve the game by adding stories, providing more detailed descriptions of characters and places, analyzing the mechanics, writing and re-writing instructions in order to produce a game that would meet the requirements of the project, while being fun and playable. We considered all aspects of the game while keeping the time limit in mind – approximately 90 minutes.

During the *Intensive Study Program* in September 2019, we were more than satisfied with the final result, particularly after reading the students' responses to our questionnaires. In the questionnaires, the players indicated the most valuable and entertaining aspects of the game and pointed out the areas for improvement. Most importantly, almost all students had fun playing the game while exploring the Polish culture. This confirms an often-repeated observation that the nature of both teaching and learning has changed; students can learn a lot by themselves especially if they are in a sheltered game environment which allows them to be quite imaginative. The most important effect of using games in learning is, arguably, increasing motivation and inciting interest, which will lead students to explore the game universe on their own – in this instance the world of Polish legends. Rugelj, Jedrinović, and Bevčič (2018: 39–40) suggest that during the game session, neither the

teacher nor the students should lose sight of the intended goals of using the game in the classroom, described in the telic phase. Before and after the game is played, students should be encouraged to do some activities related to the game universe. This, however, requires more time than the students had during the *Intensive Study Program*, especially that all four nationalities had to take part in all four role-playing games. Following the example of various popular RPGs, such as Lovecraftian *Call of Cthulhu* (Lovecraft 2011 /1926/; cf. Petersen et al. 2016 /1981/), we (Bieszczanin & Juźwin *in prep.*) adapted many Polish legends, which can be read before or after the game in order to expand the player's knowledge of Polish culture.

12. Conclusions

Creating *Polonia Misteriosa* (Bieszczanin & Juźwin *in prep.*), a role-playing game based on the world of Polish legends and tales was a formidable task. The game meets all the requirements listed in the project document:

(1) It is "set in the Polish cultural context and deriving from the local regional characteristics";
(2) It derives from the "educational experience of WSF", having been created by WSF lecturers;
(3) It is "developed in English", which means that it can be played in WSF and other institutions participating in the project;
(4) It encourages students to take part in "intercultural education", forcing the students to concentrate on the task at hand and cooperate with other players in their team (cited & quoted (Bieszczanin & Juźwin *in prep.*: 46).

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City game as a giant board game created by students for students under a teacher's guidance. A practical guide

ABSTRACT. The aim of the chapter is to present to academic teachers the procedure of creating an educational city game (regarded as a kind of board game) during an academic project carried out by students under a lecturer's supervision. The proposed matrix for a city game is the author and her students' own urban game *From Wratislavia to Wrocław*. First, the author analyses the connection of the chosen topic with the Erasmus+ *GameIT* project and discusses the need for using games in education. Then, she explains why the city game may be regarded as a giant board game, the archetype of all games. In the next part of the chapter all the stages of designing, creating, testing, and implementing the city game are described in detail. Finally, the author gives practical advice to academic teachers who would like to propose city-game creation to their students as an academic project. Moreover, the chapter contains examples of real tasks from the actual game *From Wratislavia to Wrocław*, opinions of the participants, both from a secondary school in Lower Silesia and international students of Erasmus+ (from Turkey, France, Spain, Austria, and Greece), reflections of the creators of the game, and photographs from the game sessions.

KEYWORDS: city game, cooperative games, board game, field game, educational game

1. Introduction

The aim of this chapter in the *GameIT* project is to describe the experience of designing, creating, testing and implementing a giant "board game" in the form of city game *From Wratislavia to Wrocław* as a kind of guidebook for teachers of how to achieve a similar accomplishment, in the hope that the reader finds it a valuable methodological tool for many academic disciplines, e.g. education, second language teaching, art, history, cultural studies, creative writing, and the like.

The *GameIT* project (*Gamestorming for Innovative Teaching*) has been devoted to "improving the quality of didactic methods and tools by designing and implementing innovative cooperative games developing 21st-century competences" (GameIT web page). The project has focussed on creating one fully-fledged hex board game designed by the four partners in the project (the consortium) and four culture-specific role-play games designed separately by each partner to be used during courses at a higher education level. The author of this article has taken part in all the

phases of producing both the board game and the national role-play game. The experience, combined with her previous dealings with educational games has induced reflections on the best use of games in education. As a result, she decided to share in the present e-book the know-how of creating a city game as a special form of the board game.

There are four reasons why the author has chosen the description of the work on a city game, in accordance with the specification of the task contained in the project application form. The first objective is to include "a methodological guide on designing games and game scenarios so that they can be later used during classes in higher education institutions." The second objective is to present "the methodological tools and techniques for the academic teacher", in particular, "methods of stimulating the group, solving problems, developing creativity" and "the possibilities to develop the desired competences, attitudes and skills during the game" (Erasmus+ GameIT Project 2017: 53). The next goal is to include constituents of culture and awareness in the project work. The final reason is practical – it is much easier to create a completely new city game as a project for students on a higher level of education than to create a novel board game. While the former can be done fairly smoothly over a few weeks or months, the latter requires a lot of time and specialist knowledge, which is usually not available in the ordinary classroom.

The outcomes of the project epitomize the interest of the modern education systems in gamification, using games in education in such a way that they would facilitate teaching and enhance learning in the modern classroom afflicted with concentration deficiency and lack of motivation. According to Jože Rugelj (2015a: 1) "Learning in schools is still heavily geared toward the acquisition of content within a teacher-cantered model, with instruction too often abstract and decontextualized and thus unsuitable for this age of complexity and interconnectedness." Therefore students of the digital era, used to more active, creative, and stimulating activities outside school, in the classroom become bored, unfocussed, and demotivated. It is becoming increasingly difficult to help such students acquire knowledge and skills and retain them over a period of time. In pursuit of more effective teaching methods for the 21st-century learner, teachers and educators have resorted to games, which usually are a big part of the learner's life outside school.

Actually, in certain fields games have been used in school and academic teaching for many years. The most obvious example is teaching young learners in kindergartens and first years of schooling. Teachers in primary education are specialists in kinesthetic games, role-play, puppet theatre, singing and dancing, and other playful activities, like arts and

crafts, which, for many years, were dismissed by "serious" teachers as childish nonsense below their and their students' dignity. Another example may be language teaching, where role-play, drama, and language games have constituted a necessary component of practicing communication in the classroom for decades. This phenomenon has been studied by many SLT methodologists, including Teresa Siek-Piskozub (2001), who advocates harnessing play in SLT as part of a very effective "ludic strategy." Moreover, for a long time games have been an indispensable part of strategy training in such fields as, for example, marketing, business organization, aviation, and military training (e.g. professional flight simulators share many features with highly advanced games on the market). Yet, in other areas, they were usually regarded as naïve and unnecessary time-fillers without the power of educating.

However, with the advent of modern technology and the ensuing "gaming craze" of the modern youth, sometimes referred to as generation.com (Garris, Ahlers, and Driskell 2002: 442), who play video games with a zeal unthinkable of for "ordinary" activities in the classroom, it was necessary to reconsider using games in otherwise "serious" teaching. Therefore games have become the object of scientific inquiry and, as a result, gained the status of valid and valuable teaching methodology.

Why exactly are games such a desirable teaching method? Garris, Ahlers, and Driskell (2002: 443–447) claim that games and game-like simulations engage the learner in active problem-solving resulting in increased attention and risk-taking and greater involvement in the task. The player's heightened motivation leads to sustained effort and better retention of the learned material. The authors call this type of education "experiential learning" in which the learner is "actively constructing knowledge from experience." (Garris, Ahlers, and Driskell 2002: 446)

The involvement of the player in most games, especially the computer ones, is enhanced by the fact that the world of the game is different than everyday reality and, while playing, the player usually assumes a different persona that does not exist outside the limits of play. This aspect of playing was underlined as early as in 1938 by Johan Huizinga (1949: 8), who believed that "play is not 'ordinary' or 'real' life. It is rather a stepping out of 'real' life into a temporary sphere of activity with a disposition all of its own." This aspect is particularly important in the gamification of education with the use of such activities as drama, board games, and role-playing games.

Finally, games are important in developing team-building strategy. It is enough to type in "team-building games" into an Internet browser to get numerous results of the practical game offers immediately. Every

institution valuing teamwork, from schools to corporations to the army, employs games to foster inter- and intra-group communication, cooperation, strategy-building, problem-solving, and creating team spirit with positive interdependence and accountability for every member of the team. Team projects, often using games or game elements, have become one of the most popular modern methods of teaching and learning.

All these advantages of games have been appreciated by the authors and participants of the *GameIT* project. The authors have chosen the board game (also called the table-top game) as the most characteristic, comprehensive and versatile type of game that can be used in almost all academic environments in a variety of contexts. The centrality of the board game to the project has determined the allotment of most time and energy to create that particular type of game. During the two years in the project when the board game Planet Hexagon was created and tested, the participants and student testees have had many opportunities to observe its goals and rules, the board, the mechanics, the engagement of the players, and its educational value. Because some of the student testees also had an opportunity to play a city game (urban game) created by other students of the Philological School of Higher Education, the comparisons between the two games were inevitable.

When regarded in the broader sense, the city game may indeed be perceived as a giant board game with more immediate participation. Actually, Larissa Hjorth (2011: 91) defines the city game (urban game) in the following way: "Urban games use the city space as the game board by offering multiplayer games that are played out in the streets and city." She describes some early urban games, including B.U.G (Big Urban Game) designed in 2003 by the University of Minnesota Design Department (Hjorth 2011: 91). In that game, the streets of Minneapolis formed an enormous "board" on which three teams of players moved three ten-meter inflatable counters of different colors for five days, using big dice to count the number of steps to move forward. The object of the game was for each team/counter to achieve the finish line first while passing all the required elements on the route (separate for each team/counter). This was the most literal urban game metaphor of the board game possible.

Apart from the giant board, the following characteristic features of the urban game make it resemble the board game. First, the board or the table-top game, regardless of its mechanics, often represents a make-believe location, for example, a room, a building, a mine, a dungeon, a village or town, an island. Even more abstract strategic games, like chess, fall into this category with their notion of the battlefield in the middle of

a war. Then, players of board games usually use counters to represent human beings or other characters taking part in some action. This aspect is less symbolic in the city game when the players appear in person, although in many urban games the players may embody some other personae with specific characteristics, a costume, a particular way of speaking, etc. The third factor shared by the two types of games is mechanics. In this respect, city games share some types of mechanics with board games. For, example, to use the typology presented by Michał Mijal (2014: 124), board games may be involved in long-term planning (e.g. the Route/Network building mechanics), luck-based gameplay (e.g. the Roll/Spin and Move mechanics) or cooperation (the mechanics of cooperation). Taking into account this aspect, urban games tend to be much less luck-based and much more cooperative than ordinary board games. Finally, both kinds of games often entail immersion in a fantastic universe in which the players temporarily experience the exclusion from the par-amount everyday reality. Good board games and good city games may make the learner experience the "flow" or total immersion in the game reality, as described by Marco Arnaudo (2017). Not only does this experience lead to the learner's deep satisfaction but also, if the game carries educational content, it makes the learner learn it implicitly and effortlessly with a high level of retention.

The game *From Wratislavia to Wrocław* (in short *Wratislavia*), which is the subject of this article, was inspired by several city game projects created and carried out by Marek Krawiec (Wielkopolska University of Social and Economic Studies in Środa Wielkopolska, Philological School of Higher Education in Wrocław) in several towns of Wielkopolska (Greater Poland) and Dolny Śląsk (Lower Silesia), i.e. Wrocław, Poznań, Koźmin, Toruń, Krotoszyn, and Jarocin (Krawiec 2011: 34). Krawiec's projects under the common name Agent Project consisted in creating interesting and versatile urban games by the author with the help of other teachers and carrying them out with secondary school students. Those games were also analyzed by WSF M.A. students as part of their M.A. course and thesis writing. In those games, the bulk of the workload was shouldered by the main game creator – the author of the Agent Pro-ject himself. The game *From Wratislavia to Wrocław*, on the other hand, was created by students for other students with a lot of contribution from the project supervisor, the author of the present article, in order to use the student's creativity to the utmost and promote, in Jože Rugelj's words "inquiry-based learning in teacher education" in which students themselves "carry out research, set questions, make observations, collect, analyze and interpret data" (Rugelj 2015b: 1).

2. Objectives of the project

There were the following objectives of the academic project *From Wratislavia to Wrocław*, as a result of which the game was created:

- to produce an academic tool in the field of didactics of the foreign language,
- to help students discover information about the past and present of the city of Wrocław,
- to make students aware of the multi-cultural status of Wrocław in the past,
- to raise students' cultural awareness and promote open attitudes towards other cultures,
- to give students multiple opportunities of practicing the English language both in the oral and in the written form,
- to boost students' initiative and creativity,
- to teach cooperation, negotiation and communication skills,
- to practice map-reading and navigation skills,
- to promote outdoor educational activities,
- to show students how educational urban games are invented, planned, and carried out step by step so that they would be able to create similar games in the future with their own students.

The same objectives, with the exception of the first and the last one, were defined as the goals of the game itself. Therefore, the future players of the game were to gain similar benefits.

The obvious choice of town for this particular urban game was Wrocław, the students' place of study. Because of its rich history, in which Polish, German, Czech, and Jewish influences were interwoven throughout the ages, it was an ideal place for many game tasks. However, there was a problem of how to choose a particular location in the town itself, as there are so many interesting places in every city of this size. It was decided that the game will be set specifically in the Old Town, especially the Old Town Square, but also neighboring streets and alleys and the inner garden of Ossolineum (a historic academic library).

3. Participants, procedures and phases

The participants in the project were female students of the English Philology Department with a specialization in teacher training, in the second year of their studies for an M.A. qualification in language teaching. The project was a part of a special small tutorial class just for two students, whose names were Patrycja Król and Paulina Szybista. Because

the number of the students was so small and the workload so big, the teacher took part in the project in more capacity than just the supervisor. She also became a working member of the project team. The team worked for several weeks both in and out of the classroom to create the game and prepare it for use. The game preparation procedure may be divided into the following phases: preliminary steps, making a prototype, making the final version of the game, carrying out the game, concluding the game. Each of these phases will now be described in detail.

PHASE ONE: PRELIMINARY STEPS

There were five preliminary steps:
– setting the goals of the game,
– making a decision about the form of the game and its rules,
– choosing the Old Town Market Place (Rynek) and the Tumski Island (Ostrów Tumski) as potential locations,
– creating a list of tasks to do in the project,
– the research on the potential locations.

In the preliminary steps, the students and the teacher used their knowledge and experience on games to define the goals and choose the best form of the game that would match the goals. They decided on a competitive-cooperative adventure puzzle-solving game in which two or three teams would walk across the city and do tasks trying to reach a definite destination and thus resolve the game. The game was to be based on a story going back to Mediaeval times to recover a lost recipe for delicious doughnuts from the ghost of a Mediaeval baker involved in an unhappy romantic story with the mayor's daughter. The ghost would be willing to cooperate only when convinced that, through the ages, his beloved town has surpassed its old form in the development, beauty, and happiness of its inhabitants. The participants of the game would be appointed knights in a quest for the city's value. Out of the most interesting and rich in historical places in Wrocław, the team chose the Old Town Market Place (Rynek) and the Tumski Island (Ostrów Tumski) as potential locations. Then preliminary research began. It was done mainly by the two students. They looked through some books in libraries and Internet sources for information and photographs of interesting elements in these locations. However, going out and seeing the locations was inevitable, so after a week or two, the team entered phase two of the project.

PHASE TWO: MAKING A PROTOTYPE

In this phase there were seven steps:
– the first visit to the Old Market Place,
– a visit to the Tumski Island,
– creating a map of the route,
– creating a story – "legend",
– looking for potential groups of participants for the game,
– creating particular tasks for the prototype of the game,
– the second visit to the Market Place – testing the prototype.

Following the advice of Marek Krawiec (2011: 35), who proposes walking around the chosen town or a particular area of the town and noting down both well-known and more anonymous places, including interesting objects, the project team went for the first walk in the Old Market Place, where they took numerous photographs and some notes. They paid attention not only to monuments (like the one of the Polish playwright Fredro) and statues (e.g. that of the swordsman near the University) but also interesting tops of old tenement houses, some reliefs, gold emblems of old restaurants and cafes, bronze gnomes Wrocław is famous for, and the like.

On another occasion, the group visited Ostrów Tumski (the Tumski Is-land), also to look for potentially interesting places to locate the game's tasks. They took photographs and noted down some spots and finally decided to skip that location altogether, because, although rich in history, the place was not as attractive for the game as the other one.

The next step of that phase was done again in the classroom. In that one, the students and the lecturer used their notes and photographs to select the best spots/objects for inclusion in the game and consider them as potential locations for tasks. This step took more than two classes. With the use of old books, guidebooks, maps, magazines, and, of course, the Internet, the group found enough information to be able to define a route for the game with all the spots marked as "stops" where something interesting would happen. It was also at that point that they started to look for potential participants of the game. They decided to engage in the game two different groups on two different occasions: a group of Erasmus students from some European countries and a group of secondary school students from outside Wrocław. Although the game would have to be lead differently for these different groups, they had one feature in common: neither group knew Wrocław, so the creators hoped that the game would be the more interesting for them. The negotiations involved the date and time for the game and the possible number of participants.

It was the teacher's idea to organize the game around a story that would integrate the stops on the route and justify the need for doing the tasks. Therefore a story about a Mediaeval baker Florian and his lost recipe was invented. Then, the project team began thinking out tasks for particular stops on the route and writing instructions for them. This took the most time in the whole project. The tasks were of various kinds, e.g. to dance a special dance, to explain the meaning of some symbols, to find information about a famous person on a monument, to write a love letter. The students tried to make them educational as well as amusing and possibly linguistically challenging so that the players would learn new English words and phrases while doing them. Moreover, doing the tasks was to require the combined effort of each playing team with a lot of intra-group negotiation and cooperation. With the completion of the tasks, the first version of the game (the prototype) was ready.

A few days later the team devoted one morning to test the prototype in the old Market Place. They went through the whole route, checking whether it correlated with the map and whether the tasks were valid and doable. Another goal was establishing how much time the game would take. The game was timetabled at 2–3 hours, depending on how many groups would compete and how fast they would do the tasks, this depending on the participants' maturity, creativity and also language proficiency.

PHASE THREE: MAKING THE FINAL VERSION OF THE GAME

The final version of the game was prepared in the following nine steps:

- verifying some of the stops and tasks and perfecting the map of the route,
- allocating score points to individual tasks,
- creating the teacher's version of the game and the student's version of the game,
- naming the game,
- deciding on two models of the game,
- establishing the exact date, time of the game, etc.,
- preparing costumes and gadgets for game leaders,
- preparing diplomas for the participants and certificates for teachers,
- ordering sweet refreshments connected with the plot of the game.

After the prototype-testing walk along the route, it was necessary to verify some of the stops and tasks – to eliminate ones that were not interesting or posed some technical problems (e.g. whether the gate leading to an inner court of a building would be open at all times) and to add

some new stops that were noticed during testing and found interesting. This was connected with making amendments to the map of the route. Because all the stops and accompanying tasks were numbered, the numbers on the map had to be changed to reflect the new version of the route. Also, individual tasks were allocated score points for the competition, according to their difficulty and the time necessary for their completion. The next step was to create the teacher's version of the game – a list of tasks with the key, and the student's version of the game – numbered tasks, which were put into separate envelopes for convenience. The exact date and time of the two games was established – it turned out that the first one was to be carried out for 16-year-old students from the secondary school in Wąsosz (Lower Silesia) and the second one – for Erasmus students from Spain, Austria, France, Greece, and Turkey.

It was also at that stage that two models of the game were planned: the simple model and the competition model. The simple model was designed for smaller groups of students (4–14 students) who would go along the route together. In this case, the organization is simpler and one game leader suffices. Moreover, there is no one to compete with so the game concentrates on intra-group cooperation. The competition model was designed for larger groups of students (8–30) and situations when more group leaders are available. The group is then divided into 2-3 teams who compete against one another.

There were also practical preparations to do. First of all, the project team had to decide on the costumes they would wear as leaders of the teams. They chose clothes reflecting the characters in the game – the cook in the traditional high hat and the mayor in a fancy coat and a "scepter" made out of a giant pestle. The participants, on the other hand, would wear their ordinary clothes. Then diplomas for the participants and certificates for the teachers were produced by the project supervisor (text) and the WSF graphic designer (graphics). Finally, the supervisor ordered sweet refreshments connected with the topic of the game to be given to the participants at the closure of the game.

PHASE FOUR: CARRYING OUT THE GAME

The following six steps describe carrying out the game:
– meeting the students in the appointed place (Plac Solny),
– dividing the students into groups,
– telling the story and giving instructions,
– walking along the route and doing the tasks,
– reaching the finish line, the closing ceremony,
– refreshments, short interviews.

The first game was carried out for the students of the secondary school and the second one – for the Erasmus students. Both target groups had the same set of tasks but the secondary school group required more explanations of instructions, pre-teaching some vocabulary, and usually more time to fulfill the tasks. The groups also varied in sizes so they played in two different models. The group made of 20 secondary school students was divided into two playing teams with the project team members as game leaders to play the competition model. The Erasmus group, consisting of 6 students, played the simple model. In both cases, the leaders met the students in the appointed place, called Plac Solny, where they divided the participants into groups (the secondary school case), appointed leaders to groups, told the story, distributed maps, and gave instructions. It was only after doing particular tasks that the participants were to be given envelopes with the next tasks on the route. Then the game began: the participants walked along the route, doing tasks and documenting them sometimes by taking photos and making short films. It is worth noting that the participants engaged in the game enthusiastically, especially when it involved the element of competition

When all the tasks were completed, all the groups gathered at the final stop in the scenic inner court of the historic library Ossolineum for the ceremony of closing the game. (In the case of the competition model the first group to have finished waited for the other group.) Then the winner team was announced but all the students got the prizes: excellent doughnuts from one of the local bakeries, as the solution of the mystery of baker Florian's lost recipe and the reward for tracing and documenting the beauty of Wrocław. The formal ceremony resembled the accolade of a Mediaeval knight and involved handing-in a diploma to a kneeling candidate who was thus proclaimed a knight, receiving the honorary title of *Amicus/Amica Wratislaviae*. (The teachers accompanying the secondary school students got special certificates.) Finally, the participants of the game were asked to give feedback on the game. On the spot they declared to be very happy about having played the game and they promised to give more detailed feedback later by e-mail.

PHASE FIVE: CONCLUDING THE GAME

In the conclusion of the game, the following five steps were realized:
– the leaders' feedback on the game,
– writing a report of the game for the WSF web page,
– reading the players' written opinions,
– a discussion on ways of improving the game,
– formal evaluation of the project team's work.

After the game, the leaders (the two WSF students) and the supervisor met for the next class to discuss the process of carrying out the game and the students' role in it. The leaders enjoyed their roles and they liked the way the game proceeded, the competition, the enthusiasm of the participants. They did not encounter any problems on the route. They received a lot of praise from the participants at the end of the game. Then they wrote a report for the Philological School of Higher Education in Wroclaw's web page with the addition of the photographs and short films.

4. The players' opinions and the author's extra advice

The next step involved reading and discussing the players' written opinions of the game, which were quite enthusiastic. Here are some of them:

> "What a great way of spending time in a new city! Although it is our third week in Poland, we had not seen much of the city before the game. And today we have seen and learned more than for the past three weeks. And in a very entertaining way too! Thank you, Leaders!"

> "The game was very interesting. It was not tiring, although it lasted for quite a long time. We managed to learn some new English vocabulary, for example, *tenement house*, which many of us did not know. I also liked the competition with the other teams. We won!"

> "I liked the urban game very much. The puzzles were carefully prepared in such a way that every student had a chance to solve them with some effort. We loved the variety of the tasks, of which some were physical (e.g. the dance) and some – creative (like writing a love letter). Therefore it was impossible to get bored. Also, we spoke English all the time which does not always happen in the classroom."

> "We don't have such games in our town and we will ask our teacher if we could have one. It is such fun! And I liked the way in which our group worked together – everybody was able to contribute to some task, according to his or her talents. Sometimes we argued but we always came to a good solution. This game is for everybody, really."

> "In my opinion, the city game is a very interesting form of spending free time connected with getting to know the secrets of Wrocław. The fantastic story of the baker that we heard at the beginning of the route was a very interesting addition to the game. The leaders of the game were perfectly prepared for the job. Great memories."

> "I think that the game was very well prepared and the leaders had spent a lot of time and effort creating it. Therefore it went smoothly and was very engaging. I was never bored. Wrocław is such an interesting city! As a foreigner I didn't know that it had multi-cultural history."

> "I liked the fact that the phones were forbidden, no GPS, just maps. It was fun! Also, the game was very creative. I created most of the story connected with the gold emblems on a building and everybody in my team liked it."

The participants did not voice any negative opinions about the game or ways of improving the game but the project team, relying on their observations, decided that some modifications may be done, if necessary, with particular groups. They will be discussed in the advice section.
Finally, the whole project had to be summed up and the participating students – evaluated. Both the supervisor and the students were satisfied with the results of the project, as they believed all the objectives had been fulfilled. The supervisor decided that both students deserved very good grades for their project work. The students were happy to have learned how to organize project work, carry out a project, create and carry out a city game in the English language. They found the experience valuable for their future pedagogical work. Likewise, the author and supervisor of the project have learned a lot about project work and urban game creation and would like to express her gratitude towards her students, Paulina and Patrycja, without whom it would not have been possible.

It is the belief of the author that the above detailed description of the project phases should suffice for potential followers, nevertheless there are bits of extra advice that she would like to share:

Give your students a lot of freedom in their choices. This will boost their engagement in creating the game and carrying it out.

Choose the location wisely. It should be interesting, not very well-known, and easily accessible, preferably on foot. It is easy to find an in-

teresting place in a big city, but every town and village has interesting spots and the tasks are sources of interest in their own right.

In big cities, like Wrocław, it is advisable to take into account a calendar of public events. The crowds taking part in them may interfere with the game or even make it impossible to carry out. The season of the year should also be taken into account.

Do not expect your prototype to be the final version of the game – do not hesitate to prune less interesting tasks and locations. The game may be shorter but it should be engaging.

The story is important – it contributes to the inner coherence of the game and gives the participants the goals to pursue. Ask students to think about the story for a week and then pool their ideas, choose the best one, and develop the story together.

To make a map for the game you may use an existing map on which you draw a route with your chosen spots. The map enables the players a well-planned journey into the game universe and teaches them navigation skills they may not possess.

5. Selected tasks

Good tasks are the essence of the game. Look for a variety as well as cooperative, communicative, and language value. With groups at a lower language level, you might want to pre-teach some vocabulary or add a glossary to the game tasks. Include the history and culture of the place in some of the tasks. Here are some examples of the tasks in the *Wratislavia* game with the location and allocated score:

TASK 2

The west side of the Market Square – The Dwarf Division of Bank Zachodni.
Create a slogan advertising The Dwarf Bank! (5 points)

TASK 5

The Town Hall – What do the symbols on the crest next to the Town Hall represent?
(Correct answer: *Silesian Eagle, Czech lion, Wratislavia (W), Saint John Evangelist, the head of Saint John the Baptist.*) (5 points)

TASK 11

The Town Hall – Zaułek Jerzego Grotowskiego.

Find the jeweler's shop and show the photo of the dwarf on the lion to the owners! You will be given something in return.

TASK 14

The Houses of Hansell and Gretel – a dwarf with a house.
Once upon a time, Hänsel and Gretel ate a magic biscuit by mistake and they shrunk to the size of dwarfs. Looking for a place to live, they saw a tiny ginger house. They knocked at the door and suddenly…
Finish the story with at least three sentences! (5 points)

TASK 23

Szewska Street 50: Dancing maidens in the courtyard
Go to the inner courtyard and find the Greek relief with dancing maidens! Dance the Greek dance – syrtaki (zorba)! (10 points)

Costumes and gadgets are not essential but they add the flavor to the game. Likewise, you can carry out the game without diplomas and refreshments but they make the game more memorable.

The competition model of the game needs communication by phone between the leaders, who should know where the other groups are at a given moment. Moreover, in that model, there is a question of how to plan the routes for the competing teams of players. In the case of *Wratislavia*, the players moved along the same route, naturally spreading along the route because of different tempos of solving tasks. You may consider two other models. First, in the case of two teams, the players may start the game at two different ends of the route and go towards the meeting point in the center, where the final ceremony would be held. In this case, the players from both teams have different experiences of the game. The other way is to start the game at two opposing ends of the route, cross in the center, and follow the routes to the end. This solution, however, requires the teams to do some more walking in order to come to some other meeting point after finishing the game.

6. Conclusions

The aim of this chapter in the e-book for the *GameIT* project has been to share the knowledge of producing an urban game *From Wratislavia to Wrocław* in the form of a detailed description of the phases of game creation and implementation and practical advice for academic teachers who would like to propose city game creation to their students as an academic project. The author is aware of the fact that the game

would have to be modified if it were to be used in other fields than the methodology of teaching English as a foreign language. The tasks in the game would have to be more difficult to foster gaining specialist knowledge. She hopes, however, that the reader will regard it as a useful source of inspiration, a kind of matrix for their own work.

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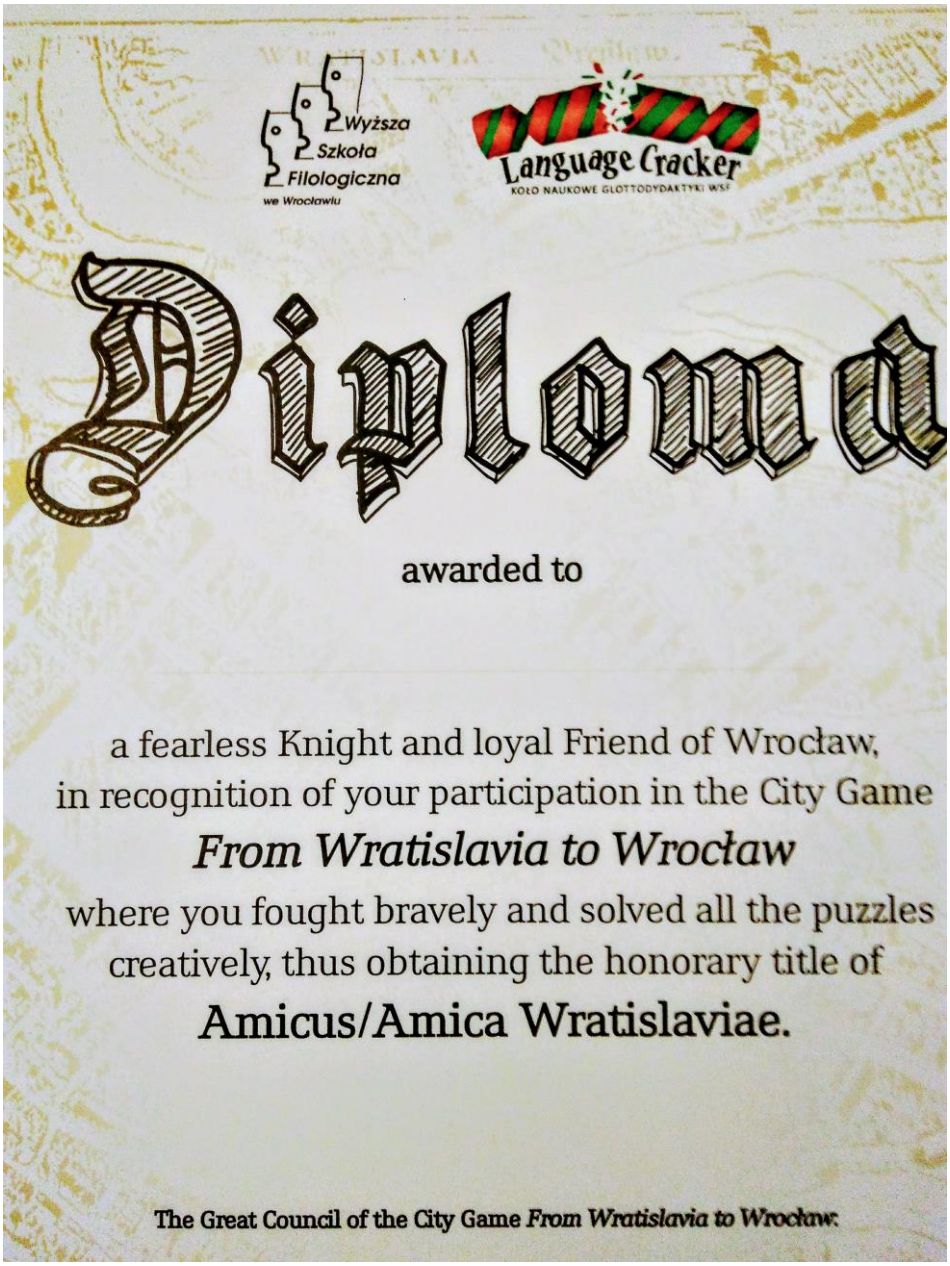
SELECTED REMINISCENCES IN PICTURES

In the library of the Ossolineum courtyard (photo: M. Bieszczanin)

Looking at the city maps of Wrocław (photo: M. Bieszczanin)

An joyful accolade ceremony to confer the knighthood in the city games
(photo: M. Bieszczanin)



Amicus/Amica Wratislaviae award for the participation in the project
(photo: M. Bieszczanin)

A group of participants against the background of the swordsman monument (photo: M. Bieszczanin)

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Role-playing games and the interactive role of the teacher. RPG – entertainment or education?

ABSTRACT. This study aims at discussing the interactive role of the teacher and educator when using role-playing games (shortly abbreviated as RPGs) as a didactic tool in the classroom. Hence, it takes as its basis an RPG developed by the authors in order to ask the questions of the importance of balancing entertainment and education, as well as the crucial role of the teacher in facilitating this balancing act. The authors of the study pose three roles available to the teacher in the classroom when using RPGs, including what these roles entail and how the teacher and the students interact with each other. The results of the testing process of the RPG in question constitute the practical foundation for the theoretical and methodological framework developed in the course of research.

KEYWORDS: gamification, drama pedagogy, role-playing games, education

1. Introduction

This study came about as a part of a three-year EU-project, where the focus has been on, among other things, the use of role-playing games (RPGs) in teaching and learning. This article aims to discuss the interactive role of the teacher when using role-playing games as a method in the classroom. The article is based on a case study of a role-playing game, which was developed by the authors, as part of the *GameIT*-project. The focus of the article will be on dramaturgy, making reference to Jonothan Neelands and Tony Goode (2015 /2000/), and the role in which the teacher inhabits in the facilitating, organizing and playing of the role-playing game.

The authors of this article are well versed in drama studies and role-playing games, formally and/or from experience in the classroom. The RPG developed by the authors, as well as this paper, finds its theoretical foundations and perspectives from the field of drama pedagogy.

2. Theoretical perspectives

2.1. What is a role-playing game?

Historically, role-playing in the sense of pretending to be someone else is one of our oldest learning methods. Aristotle (384-322 BC) writes in his *Poetics* that "the instinct of imitation is implanted in man from childhood, one difference between him and other animals being that he is the most imitative of living creatures, and through imitation learns his earliest lessons; and no less universal is the pleasure felt in things imitated" (Aristotle 1974 [c. 335 BC]: 6). In other words, role-playing is part of who we are as human beings. When it comes to learning, this principle is called mimesis, as Anna-Lena, Østern Mårten Björkgren and Birgitta Snickars-von Wright inform in the introduction to their collective monograph (2010: 7). This article will argue that imagination and simulation are two driving forces in most games.

The theoretical basis of our RPG can be linked to activity pedagogy and experience-based learning. It appeals to the pragmatic learning method elaborated by James Alexander McLellean in cooperation with John Dewey in agreement with the widely known motto "Learn to Do by Knowing and to Know by Doing" (McLellean & Dewey 1889: 182). Jeff Kuhn referred to David A. Kolb's *Experiential Learning: Experience as the Source of Learning and Development*. (1984), arguing that the most powerful learning comes from direct experience through taking action and seeing the consequences of that action (Kuhn 2015: 8).

In the 1950s, the role play as a genre, following the account of Gavin Bolton (1998: 162), was developed at Harvard University, and used in leadership training. The role-play makes the subject matter alive and relevant. Other ways to bring life to abstract subject matter can be through various forms of games.

According to Richard N. Landers (2015: 6) gamification of learning is defined as the use of game elements, including action language, assessment, conflict/challenge, control, environment, game fiction, human interaction, specialization, and rules/objectives, to facilitate learning and related outcomes

In role-playing, participants will put their knowledge, skills, and attitudes to the test. And just like children's dramatic games, players can experience themselves as players with the knowledge that this is a game. This process of standing in two worlds simultaneously is called, as one may learn from the writings of Janek Szatkowski (1985: 143–144) and

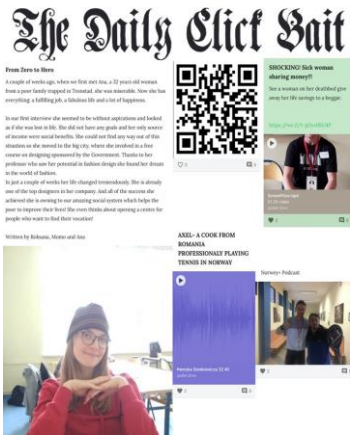
subsequently of Anna-Lena Østern and Hannu Heikkinen. the aesthetic doubling (cf. Szatkowski & Østern (2001: 110).

2.2. Dramaturgy and the use of role-playing games in education

Before discussing the use of role-playing games in education, we need to define some theoretical terminology, firstly dramaturgy. Dramaturgy is a term traditionally associated according to Tor Helge Allern with various forms of performing arts such as theater, film dance etc. (2010: 97). Simply explained, dramaturgy means composition; a tool we use to describe and determine the development of a course of action. In other words, what structural elements must be involved for a stage language to have its effect? Nowadays, the term is also used in various forms of news production, political communication or teaching (cf. Allern 2010: 97).

The term is interesting for the purpose of this study because, among other things, in the fact that in all facilitation of teaching and learning, there is a form of dramaturgy ensuring that the teaching has its effect on those concerned. By making dramaturgical choices, we control how the action takes place. Just like in any other composition, there is no coincidence in how the constituents of the composition are put together in order to achieve a specific purpose: All teaching and learning have an element of composition, presentation and communication. Therefore, it is significant to examine, following Allern (2010: 98), how the concept of dramaturgy can be applied in school. In the same way that there are several types of dramaturgical models, such as classic linear form, epic, and simultaneous dramaturgy, there are many ways to practice teaching and leadership in class.

2.3. Dramaturgy – a context building action



In our RPG, we have used a dramaturgical model inspired by Cecily O'Neill's "Process drama" (1995: 1-3) where both students and teachers work in and out of the role. The game itself has been organized with short sequences in which participants improvise in character and negotiation sequences in which participants collaborate practically and agree on the further development of the game. The game has been organized into three parts.

2.3.1. Exposition

The purpose of the first part is to establish a fictional universe; the editorial of the online newspaper *The Daily Click Bait* (illustrated above in our own photography: E. R. & C. L.). Students enter a room designed as a newspaper editorial, with various workstations and a common area. They are asked to take a seat around the meeting table, and at this time, they have been given limited information about what is going on. The teacher welcomes them to the editorial staff of *The Daily Click Bait* and explains that they will soon meet the dreaded editor in the newspaper. The teacher wears an ID card that clearly signals that she is an editor and she is now playing the role of the "grumpy Ms. Brown". The students now begin to interview the editor, so that they will have the basic information concerning the game's further action and tasks.

2.3.2. Exploration

In the second sequence of the game, the students are divided into two groups. One group is given the roles of journalists with the task of interviewing a group of Norwegians about their relationship to equality, wealth and happiness. The groups are then given the role cards, i.e., demographic characteristics, and an interview guide for this exploration.

2.3.3. Cooperation

In the third sequence, the students work together to create today's edition of the online newspaper *The Daily Click Bait*. Through interviews, they produce identity stories about what it means to be happy in Norwegian society. The articles are produced using various modalities such as videos, podcasts, pictures, and text works.

2.4. The teacher's different roles in role-playing games

Something that is unique to our game is the fact that the teacher(s) needs to negotiate between the different roles of for instance organizer and player, as well as being a teacher and an educator in the classroom. This has prompted a categorization of three roles inhabited by the teacher before, during, and after the gameplay. The choice of this division into three roles is a construct by the authors of this paper, and we have chosen to represent these with the terms *facilitator-*, *participant-* and the *default-role* (educator/teacher). This division is somewhat artificial and represents a categorization of different available roles. However, they are not as clear-cut, and influence and work in conjunction with each other.

We still choose to use them because each role comes with its own set of expectations. It is important for the teacher doing an RPG to include the didactic dimension (the default role of a teacher), but also the artistic (a participant) and dramaturgical (a facilitator) dimensions as well. Likewise, it is crucial that the didactic and pedagogical dimension of using RPGs in the classroom, and the specific challenges that come with this is not underscored.

2.4.1. The teacher default role

This is the role inhabited by the teacher simply by being a teacher. Regardless of the gameplay, the teacher is still the leader of the classroom and has an educational responsibility, both in the creation of the game, during the gameplay, and after the game (post-game). The default role hence will influence and somewhat form the basis of the choices made when the teacher inhabits the other two roles of the facilitator and participant. For this to be successful, you have to incorporate the other two into your regular repertoire as a teacher. The teacher can never step out of or away from being a teacher, both in terms of how he or she performs his/her profession, and in the eyes of the students. The teacher needs to be aware of this triangularization of roles, as described here and below when using RPGs in the classroom.

2.4.2. The facilitator

The organizational dimension of the RPG, or what we have chosen to call the Facilitator, can be related to the metaphor of scaffolding used in the learning context, as used by Jerome Seymour Bruner (1978: 19). It refers to "the temporary assistance that teachers provide for the students to assist them to complete a task or develop new understandings." (Burns & Joyce 2005: 9). In the context of our game, this entails providing information to the players/students on for instance gameplay, rules, the goal of the game, and other practical considerations.

2.4.3. The participant (teacher-in-role)

The *teacher-in-role* is a drama technique in which the teacher participates in a fiction context and makes interaction with students by playing a character or role. "A unique feature of 'teacher in role' is that its functioning potentially and simultaneously embraces the requirements of both the art and the artist" (Bolton 1998: 188). The teacher's role is mainly improvised on the basis of a theme that the participants agree on. At the beginning of the game, both teacher and students must agree on what Dor-

othy Heathcote calls a willing suspension of disbelief, or a clear fiction contract for the game, as discussed by O'Neill (2015: 3), the editor of a collective monograph, entitled as *Dorothy Heathcote on Education and Drama: Essential Writings*.

3. Method and data

3.1. The role-playing game

The RPG that constitutes the starting point for this study has been developed by the authors as part of the *GameIT*-project. The topic and the main learning aim for the RPG is to problematize what it means to be rich and wealthy. It questions whether being rich in life can be more than just a materialistic concept. It is set in a newspaper environment, where the students play either journalists or interviewees. They are paired up, and together they make a news piece based on the interview the journalists conduct with the interviewee. By means of these interviews and their characters, the students are asked to reflect upon the learning aims.

The role-playing game is structured as a game where all the participants are playing characters. One-half of the students will represent a variation of the Norwegian population, whereas the other half will play roles as investigative journalists. The setting of the game is the newsroom of an online newspaper, called *The Daily Click Bait*, which is managed by a ruthless editor in continuous search of "click-bait.". The students will be asked to contribute to an editorial on the topic of wealth, what it means to be rich and Norwegian society in general.

The game starts by building the context for the players. In the beginning, the students are not in the role, but rather get the opportunity to interview the character of the Editor of the newspaper (played by the game master). He or she is a cynical person who does everything to sell news, regardless of the truth or what is considered morally correct. The interview takes the form of a so-called hot seat. The students can ask questions regarding for instance his/her views on the topic ("All Norwegians are rich."), how he/she runs the newspaper, the search for clickbait news, and how these are produced, etc. This is to provoke the participants' involvement later in the game. "Hot seating", the editor gives the students the insight into the game's framework, rules, and expectations of what is required of participants.

In the next stage of the game, the students draw role cards dividing them into two main groups, either a Norwegian inhabitant or a journalist

working at the newspaper. The role cards contain instructions and details for further development of their specific characters. The students are instructed to produce a digital product in the form of a video, podcast, or text interview, which is to be used as part of an editorial report on the topic of the newspaper. After all the posts are uploaded on the website, the game is finished. In the so-called "post-game" section of the game, all students should go to the website, look at all the contributions and rate two of the products, which they consider the most successful newspaper entries. The game is wrapped up with a teacher-led reflection on the themes of the game, work methods, and the results.

3.2. The questionnaire

The RPG was tested and evaluated during a summer school, which was held in Wroclaw in September 2019. The participants were students from all four countries involved in the *GameIT*-project. After the testing, the students were asked to fill in questionnaires, reflecting upon the game, gameplay, what they gained from it, etc. The overall impression of the game from the participants was positive. They reported liking playing the roles, as well as the creative aspect. They also appreciated the opportunity to practice their English. Upon being asked specifically about the beginning stage of the game, students mentioned the character descriptions and the "hot seat." session as helpful in terms of player engagement. The students ranked the development of creative and communicative skills the highest. A large majority of the respondents reported enjoying the game, and all of them found it meaningful.

3.3. The testing of the RPG

During the testing of the RPG, the authors focused on the role of the teacher in the organization of the game, as well as regards the frequency of how much and the way of involvement, and the fact that this was an educational setting. There was a conscious approach to how the testing was carried out in terms of the different roles inhabited by the teacher in charge of the testing session. This became known particularly when it comes to the scaffolding at the start of the game.

Two different approaches were tested; one in which there was little or no information given to the players before the game, and another in which the players were provided with a substantial amount of information and player support. This could, for instance, be the level of practical information about the gameplay itself they received (timing, what would be happening, their amount of control over the game, the different

roles, each stage of the game, etc.). By doing this, the examiner tested the role of the teacher as a facilitator. The testing onlooker also observed the role of the teacher as a participant in the gameplay. The teacher is both the game master (or teacher as Facilitator) and participates in the game in the role of the editor (and the staff) of the newspaper. During the testing process, the teacher took on varying levels of participation and role-play.

4. Analysis and discussion

4.1. The teacher as a default role

One important realization from this way of doing the testing was that it was beneficial to have two teachers instead of just one. The game is made in such a way that it is possible to do it with one teacher going in and out of the roles of "game master" and "editor" but that having two teachers was helpful, for purely practical reasons and for the organizing of the game and the students. Also, with having two teachers, the one inhabiting the role of the main facilitator (a game master) can take on the role of a negotiator between the students and the other teacher who plays the role of an editor (a participant player in the game). In this way, the facilitator becomes a "go-between" whom the students can turn to with questions about the gameplay and help secure their feeling of safety. It is difficult to do this as a teacher if you are both in the game and in a role (editor) and on the outside of the game (facilitating).

4.2. The teacher as a facilitator

Another result was that the testing revealed that when the student received little or no information before the game and in the situation in which the teacher(s) went straight into the characters, the students became passive and unwilling to take part in the fictional universe of the game. The higher degree of information and scaffolding before the gameplay was, the higher was the students' involvement in accepting the premise of the game and create their own role and character. The collaboration between the players was also affected by this. Those students who received a substantial amount of information before the game were more likely to take an active part in collaborating with the other players. This collaborative situation shows us that the roles of a teacher as a facilitator and the teacher as a participant are mutually dependent. Without facilitation, the gameplay and the students' involvement and their will-

ingness to participate in the games, will be low, regardless of teacher's engagement in the role of an editor.

4.3. The teacher as a participant

Being in the role is a challenging aspect of this game for most teachers. Committing to the angry and displeasing role of an editor in front of your students can be quite an obstacle. However, the testing shows that the level of engagement from the students in the gameplay increased when a high level of participation, i.e., the willingness to play a role, by the teacher. In other words, the game was more successful when the teacher dared to step out of her comfort zone and fully commit himself/herself to the role. The teacher and the students need to agree on the parameters of the fictional world and it is easier for the students to participate in the creation of this fictional world when the teacher participates in this creation as well. Assuming the role entails putting oneself at risk for the students, both personally and socially. A participating teacher can thus provide a sense of safety in being a role model because his engagement reduces the formal distance between the teacher and his./her students. Here we can see how a default role and a participant role are clearly related.

5. Conclusion

As our paper has shown, in order for RPGs to be a successful addition to a classroom in terms of being educational and not merely entertainment, the teacher and RPG creators need to consult principles and theories from the field of drama and dramatology. Considerations such as player engagement, scaffolding, and the pedagogical outcome of the gameplay need to be taken into account. Here the role inhabited by the teacher is especially relevant, whether being a facilitator, a participant, or in the default role of a teacher. The teacher needs to be aware of all of these different roles, and keep them in mind when designing, using, and evaluating RPGs in the classroom. It is not a purely pedagogical effort, as it needs to take principles from dramatology and drama pedagogy into account. Likewise, it cannot be a purely dramatological undertaking; the teacher will need to apply pedagogical and didactic measures into it as well. This balancing act is a challenging one and one which the teacher needs to be aware of.

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The application of games as an effective teaching method in the higher education training process

ABSTRACT. Recent developments in the field of education sciences include an amplification of studies that highlight the increasing role of game strategies in the training process at a higher education level. Game-based learning is just one of the perspectives that expresses this growing interest. In accordance with this theoretical direction (which manifests itself as a special increase of the studies that is related to this topic with applications for all levels of education from kindergarten to higher education and for all the fields of professional training, as, e.g., artistic, military, medical, accounting, tourism, science, geography, education, there is an unprecedented increase in the types and number of games, both classic and digital, created, adapted and integrated with the formative process. The way in which students and teachers meet in a playful type of teaching is challenging, involving a certain type of attitudinal relating that is not always manifested by the actors involved. At the same time, the particularities of the higher education process, the abstract nature of the curriculum, the adult age of the learners, the particularities of teacher training are just a few factors that provide specificity to integrating the game into the academic training process, with the inherent values and limitations. Our study aims at carrying out a theoretical-applicative analysis of this issue, while highlighting advantages and disadvantages of game for university students and teachers; types of teaching-learning games and examples in higher education; the role of the academic teacher in using games. The final considerations will underline the necessity of balancing the classical and the modern didactic approaches, the valences of the didactic game for the current generations of students as well as some suggestions for the teacher training process from this perspective.

KEYWORDS: play and game, learning and teaching, applied linguistics, educational methodology

1. The value of playful approaches integrated into the training process

The role of games in the educational process has been discussed for ages. Worth mentioning is here Jean Piaget (1972 [1969]) who has highlighted just a few significant names of authors since antiquity exposing the positive impact of games on the formation of human personality.

As we may learn from Dimitrios Vlachopoulos and Agoritsa Makri (2017: 25), as well as José P. Zagal (2010: 11), the use of the term *game* is vague, manifesting a lack of consensus in the attributed meaning. This is obvious if we consider that it also refers to educational games, board games, card games, digital game-based learning, and applied games or ball games, Olympic games, without mentioning here a multitude of other playful techniques, such as interactive exercises, video games or the technological platforms that implement digital game code that include computers and consoles.

However, beyond any differences, a whole series of similarities and relationships are evident. In relation to this ambiguity mentioned above, our intention, based on the views of Jesper Juul (2003: 30), is to find a general definition that would enable us to generate an explanatory model of games. In an attempt to answer the question: *What is a game?*, we shall highlight, from the multitude of definitions analyzed by Juul (2003: 31-33) the following one: "A game is a (1) rule-based formal system with a (2) variable and quantifiable outcome, where (3) different outcomes are assigned different values, (4) the player exerts effort in order to influence the outcome, (5) the player feels attached to the outcome, and (6) the consequences of the activity are optional and negotiable" (Juul 2003: 35). In agreement with the analysis performed by Zagal (2010: 12), we express our belief that this approach is comprehensive, flexible and allows us to understand all the categories of games, managing to underline their shared specificity.

After 2000, in the U.S. there has been an explosion in the number of universities that teach "game courses" and offer game-related degrees, with significant concerns about how to best implement games in education, the associated challenges and what students expect to learn through them (Zagal & Bruckman 2007: 575).

Studies in the field have intensified their references and analyses on *serious games* (Liu & Liu 2020: 151; Morote & Price 2018: 1; Boyle et al 2016: 186; Backlund & Hendrix 2013: 1; Connolly et al. 2012: 661; Vandercruysse et al. 2012: 628). As Sa Liu and Min Liu (2020: 152) point out, it is in the early 1970s when games have conceptually started to attract the interest of researchers, gaining more and more ground in field studies. According to Wim Westera et al. (2008: 420–421). due to their complexity and seriousness games appeared to be useful for the purposes of higher education given the deep cognitive, reflective, critical particularities of the learning process which is characteristic of the adult students at this age. When applied to the didactic process, it was used precisely to highlight the detachment from the common meaning of the

term *game*, incidentally regarded as correlated with relaxation, fun, amusement rather than with the learning. itself

The evolution of the studies on the problem of the game and its integration in the learning process has led to the enrichment of the conceptual apparatus with a new term, respectively the term of *Game-based learning*. The value of game-based approaches to learning has been significantly emphasized in the literature of the last 20 years (Liu & Liu 2020: 151; Acquah & Katz 2019: 1-19; Partovi & Razavi 2019: 2; Pellas et al. 2019: 329–346; Morote & Price 2018: 1; Hilliard & Kargbo 2017: 61-71; Vlachopoulos & Makri 2017: 22-55; Pho & Dinscore 2015: 1; Connolly et al. 2012: 661; Whitton 2012: 249–256; Boyle 2011: 1; Baker 2003: 24–76). However, some authors argue that the integration of the game in the educational process has not been satisfactorily researched to produce sufficiently solid results, based on which their "effectiveness and efficiency as educational tools" may be highlighted (Weiss 2018: 179; Boyle et al. 2016: 179; Connolly et al. 2012: 671; Backlund & Hendrix 2013: 1; Vandercruysse et al. 2012: 629). From this perspective, we agree with the views that express the idea of the probabilistic, provocative, challenging nature of educational games (Backlund & Hendrix 2013: 1; Zagal & Bruckman 2008: 1).

Nevertheless (or, precisely because of this!), on the one hand, educational games are desired and expected by students of all ages, as an expression of the playful nature of the human being. On the other hand, for the teacher they are a challenge that correlates with: 1. his/her set of values-attitudes (liking or disliking games, accepting/rejecting educational games as a learning path, being convinced or not of their positive impact); 2. a complex action package of complementary interventions (including selection, organization, capitalization, evaluation, creation); 3. a set of personality traits (e.g., a playful component of well-emphasized personality and / or artistic talent (for classic games, which the teacher must demonstrate and in which he/she must actually be involved as a part of the learning group). Studies have confirmed that a game-based approach to learning is being used across many different curricular areas; practically there is no area in which they cannot be used from a didactic perspective. In fact, beyond this possibility, there are training areas where they are used predominantly, such as health, business, and social issues (Connolly et al. 2012: 671).

2. Advantages and disadvantages of games for university students and teachers

Research in the educational field is increasingly interested in capitalizing on the didactic game in university education. Given its specificity, this implies a change in pedagogical approach by shifting the focus from lecture-centered to student-centered and active learning (Pellas et al. 2019: 330; Vlachopoulos & Makri 2017: 46).

Based on the theoretical analyses in the field, we have selected, identified and systematized a series of data that allow us to highlight the advantages and disadvantages of the didactic game, for both university students and teachers. These will be presented in order of their relevance, chronologically, as it results from the sources used.

2.1. Advantages for university students:

(1) *Stimulating motivation for learning* (Acquah & Katz, 2019: 2; Morales-Carbajal & Villa-Angulo 2019:11; Partovi & Razavi 2019: 2; Pellas et al. 2019: 330; Morote & Price 2018: 1; Pratama & Setyaningrum, 2018: 5; Weiss 2018: 179; Hilliard & Kargbo 2017: 62; Vlachopoulos & Makri 2017: 24; Strickland & Kaylor 2016: 101; Parisod et al. 2014: 167; Pho & Dinscore, 2015: 1; Connolly et al. 2012: 661; Larsen et al. 2012: 5; Vandercruysse et al. 2012: 628; Whitton 2012: 249; Milczynski 2011: 1; Bader-Natal 2008, 12; Zagal & Bruckman 2007: 581);

(2) A more pleasant (Partovi & Razavi 2019: 2; Hilliard & Kargbo 2017: 62; Parisod et al. 2014: 166; Vandercruysse et al. 2012: 628; Boyle, 2011: 4), *more fun* (Acquah & Katz, 2019: 2; Pellas et al. 2019: 330; Morote & Price 2018: 5; Pratama & Setyaningrum, 2018: 3; Strickland & Kaylor 2016: 101; Parisod et al. 2014: 166; Milczynski 2011: 1), *more active* (Partovi & Razavi 2019: 2; Hilliard & Kargbo 2017: 63; Vlachopoulos & Makri 2017: 24; Strickland & Kaylor 2016: 101; Pho & Dinscore 2015: 1; Parisod et al. 2014: 166; Milczynski 2011: 1; Westera et al. 2008: 420) *and practical way of learning* (Hilliard & Kargbo 2017: 62);

(3) *Higher quality of learning results* (Acquah & Katz, 2019: 2, 9; Morales-Carbajal & Villa-Angulo 2019: 2; Pellas et al. 2019: 330; Morote & Price 2018: 1; Pratama & Setyaningrum, 2018: 2; Schmuck & Arvin 2018: 51; Weiss 2018: 179; Hilliard & Kargbo 2017: 62; Vlachopoulos & Makri 2017: 3; Boyle et al. 2016: 182; Pho & Dinscore, 2015: 1; Parisod et al. 2014: 166; Vandercruysse et al. 2012: 628; Boyle, 2011: 3; Westera et al. 2008, 420-421);

(4) *Higher student engagement in learning* (Acquah & Katz, 2019: 2; Pellas et al. 2019: 329; Morote & Price 2018: 1; Weiss 2018: 178; Hilliard

& Kargbo 2017: 61; Vlachopoulos & Makri 2017: 9; Boyle et al. 2016: 187; Strickland & Kaylor 2016: 101; Pho & Dinscore 2015: 1; Connolly et al. 2012: 661; Larsen et al. 2012: 5; Vandercruysse et al. 2012: 628; Boyle 2011: 3; Milczynski 2011: 1);

(5) *The development of group cohesion* (Morales-Carbajal & Villa-Angulo 2019: 2; Vlachopoulos & Makri 2017: 9; Parisod et al. 2014: 167), of the *ability to communicate and collaborate* (Morales-Carbajal & Villa-Angulo 2019:2; Pellas et al. 2019: 345; Schmuck & Arvin 2018: 51; Strickland & Kaylor 2016: 101; Parisod et al. 2014:167; Connolly et al. 2012: 661; Whitton 2012: 249; Boyle, 2011: 3; Westera et al. 2008: 420);
6. *Ensuring well-being, affective outcomes* (Morote & Price 2018: 1; Vlachopoulos & Makri 2017: 9; Boyle et al. 2016: 182; Strickland & Kaylor 2016: 101; Connolly et al. 2012: 661; Boyle, 2011: 4); *build student confidence* (Morales-Carbajal & Villa-Angulo 2019: 2 ; Partovi & Razavi 2019: 2; Parisod et al. 2014:167);

(7) *The development of problem solving ability* (Acquah & Katz 2019; Pellas et al. 2019: 329; Weiss 2018: 178; Hilliard & Kargbo 2017: 63; Vlachopoulos & Makri 2017: 47; Litts & Ramirez 2014: 160; Parisod et al. 2014: 166; Connolly et al. 2012: 661; Whitton 2012: 249; Boyle 2011: 1; Milczynski 2011: 1; Westera et al. 2008: 420–421; Bader-Natal 2008: 13);

(8) *Stimulating students' creativity* (Partovi & Razavi 2019: 2; Pellas et al. 2019: 329; Morote & Price 2018: 1; Weiss 2018: 178; Boyle 2011: 1); *encouraging creative behavior and divergent thought* (Kleiman 2008: 214; Westera et al. 2008: 420);

(9) *Immediate feedback* (Acquah & Katz, 2019: 12; Pellas et al. 2019: 329; Vlachopoulos & Makri 2017: 31; Litts & Ramirez 2014: 160; Connolly et al. 2012: 661; Bader-Natal 2008: 13; Parisod et al. 2014: 167);

The studies analyzed allowed us to identify only a few advantages of using the didactic game for university teachers. Based on our professional experience and the studies analyzed, sometimes by analogy with the advantages identified for the students, we also deduced the following advantages:

2.2. Advantages for university teachers:

(1) *A much cheaper and more flexible way of organizing a pleasant, dynamic and practical learning*;

(2) *Stimulating professional motivation* (Hilliard & Kargbo 2017: 61-62; Vlachopoulos & Makri 2017: 47);

(3) *Involving teachers in the process of identifying, selecting, capitalizing, and developing games, sometimes even creating and testing them*;

(4) *Developing the capacity to carry out the formative evaluation* (Pellas et al. 2019: 330; Hilliard & Kargbo 2017: 61);

(5) *Improvement of the affective state of teachers, of the teacher-student relationship*; and

(6) *Stimulating teacher creativity* (Boyle 2011: 1; Kleiman 2008: 214);

We have found that although there are both advantages of using games in the university education process for both students and teachers (Vlachopoulos & Makri 2017: 40), however, research in the field focuses, in particular, on those concerning students, leaving relatively not much light on its impact on teacher acquisitions, states, and values. Thus, the limitations or disadvantages of didactic games in relation to both students and teachers are analyzed to a much lesser extent.

2.3. Disadvantages for university students:

(1) *Games are frequently associated with leisure rather than academic drive* (Zagal & Bruckman 2008), distracting students' attention and hindering learning (Vlachopoulos & Makri 2017: 47);

(2) *Games are time-consuming in educational activities* (Zagal & Bruckman 2008);

(3) *The unequal involvement of all students as well as the different individual rhythms of playing games may cause some students (who are less adept at games) not to make the most of the game-based learning process* (Pratama & Setyaningrum 2018: 6);

2.4. Disadvantages for university teachers:

(1) *The existence of a certain reluctance regarding the acceptance of didactic games in the educational process* (Jordan-Cooley 2014: 139), especially in the university environment, given the specificity of the academic learning mode (understood as being at the opposed pole to fun and relaxation, activity modes specific to games!) (Westera et al. 2008: 420–421). Teachers need to be convinced of the potential of this method (but also of its limitations) and more confident in using it (Whitton 2012: 249);

(2) *An additional effort for curricular integration, for finding the proper alignment of the game with the curriculum* (objectives, contents, evaluation) (Hoffman & John 2014: 281; Jordan-Cooley 2014: 139);

(3) *Games are time -consuming, games take time* (Weiss 2018: 179) to learn and design properly (Strickland & Kaylor 2016: 101; Whitton 2012: 249; Milczynski 2011: 1);

(4) *Lack of technical expertise of teachers; teachers are not always able to design a game, to translate curriculum into a working game* (Whitton 2012: 249), which requires additional technical and pedagogical support;

(5) *Increasing costs* (Weiss 2018: 179) (both for the purchase of games and the purchase of associated hardware) (Jordan-Cooley 2014: 139; Whitton 2012: 250) respectively for the creation of games (Vlachopoulos & Makri 2017: 49);

(*6) Growing difficulties in terms of assessment* (both of the learning process and of the skills trained) (Weiss 2018: 179).

(*7) Some negative affective states correlated with the integration of the game in the didactic process: technical and logistical concerns; the state of powerlessness/discomfort in the effort to practice the game as a learning tool* (Jordan-Cooley 2014: 139); the state of stress related to the use of the didactic game or the shame/fear of failing in this approach (Weiss 2018: 179).

2.5. Summarizing advantages and disadvantages of playing games

Based on this analysis, we can formulate the following set of partial conclusions. By extending the conclusions suggested by Connolly et al. (2012: 672), we may argue that "the most notable point about the current review was the diversity of research on positive impacts and outcomes associated with playing games";

Most of the studies are invoked to analyze the positive effects, especially on the students. Very few studies attempt to identify (and then only tangentially, complementarily) the impact of using games as teaching practice on teachers;

The multitude of aspects analyzed requires their systematization (as advantages and limitations) from the perspective of both students and teachers;

Studies of Jose P., Zagal and Amy S. Bruckman (2007: 581) have shown that the use of games in the teaching process can be a challenge from many points of view. Even if the current research offers important and useful solutions, it is necessary to continue them;

Although the use of games in the teaching process is very promising from a theoretical point of view, however, empirical studies fail to support this perspective with solid arguments (Vandercruysse et al. 2012: 643);

In agreement or despite all the results of the research done so far, "games are expected to play a significant role in the learning process" (Vlachopoulos & Makri 2017: 46).

3. Types of teaching-learning games and examples in higher education

The interest in investigating the use of games in academia has become a priority lately. Educational games, digital games, and applied games can be successfully used in universities (Vlachopoulos & Makri, 2017: 3).

This chapter will explore the possibilities of integrating educational games into the teaching-learning activities of higher education. Based on the analysis of the reference works in the field of educational games (Chateau 1967: 23; Claparède 1975: 85; Delaunay 1973: 152; Piaget 1972: 124), the readers can observe that the specialists' concerns have been concentrated on the classification of games according to the particularities of the preschool age. However, playful activities are present even at young school age, pre-adolescence, adolescence, youth, and adulthood.

Table 1. An attributive typology of educational games for higher education

Educational games	Didactic games	Sensory-development games Cognitive-development games Attention development games Affective-development games Attitudinal-development games
	Role-playingy games	General role-playing games Specific role-playing games
	Board games	Competitive board games Cooperative board games Cooperative board games Collaborative games
	Digital games	Linear games Competitive games Strategic games Role-playing games
	Social games	Interpersonal knowledge games Energy- and ice breaking games Cooperatve-communicatiional games

The purpose of this study is to propose a taxonomy of educational games in the context of using them in the academic environment (Table 1, elaboration: LM, VMC & GM) to identify the types of game activities

that can be used in this context. The main games that are included in the taxonomy are didactic games, role-playing games, board games, digital games, and social games.

3.1. Didactic games

Didactic games are "learning and working methods, used for didactic purposes" (Schaub & Zenke 2001: 161). They are based on simulated action that capitalizes on the recreational purposes specific to the human activity at the level of the instructional-educational activities in higher education.

The integration of didactic games into teaching-learning in the academic environment ensures a harmonious combination of the instructive-educational element with the fun one. These types of games have an informative character, which derives from the content of the game, the didactic task, the rules of the game and the action of the game (Dumitriu 2011: 41), as well as a formative character, which is given by the training and development of the psychic processes, the exercise of their functions.

There is a variety of educational games depending on the criterion of the development of the psychic processes and the personality of students. Educational games of sensory-development have as objective the improvement of the visual, auditory, olfactory, gustatory analyzers, in order to educate the sense of balance, orientation.

In these games, students are asked to discover object qualities through analyzers. The educational games of cognitive-development are established according to the thought operations involved (analysis, synthesis, comparison, generalization). From a cognitive point of view, educational games can be designed for the development of language, memory, imagination. The role of these games is not only to achieve the transmission of new knowledge but also to consolidate and evaluate them, contributing to the formation of intellectual work skills. Attention-development games are effective for building a spirit of observation, as well as its qualities - concentration, stability, volume, and distribution. The educational games of affective-development aim to express emotions. Through the expression and collaboration opportunities it provides, the didactic game reveals the manifestation of higher emotions and feelings. The didactic games aimed at building attitudes foster the development of favorable personality traits, such as self-confidence, perseverance, patience, honesty, etc.

There is a number of basic characteristics of didactic games, as follows: they are explicitly integrated into the educational approach, they

are proposed by the training adult, they are characterized by several game elements. The specific elements of the didactic game are: theme, didactic purpose, operational objectives, didactic task, rules, game elements, didactic strategy, game development, and game versions They constitute stages which are presented in Table 2 (elaboration: LM, VMC & GM).

Table 2. The stages of a didactic game

No.	Stages	Characteristics
1	Introducing the game	It involves preparing students for playful activity. One may start with a brief discussion to trigger the interest of the students.
2	Announcing the tile and purpose of the game	It will be done synthetically, accurately and succinctly.
3	Presenting the game materials	It will be done so as to contribute to the creation of a pleasant atmosphere.
4	Explaining the game rules	It ensures the understanding of the requirements, the sequence of the actions of the game.
5	Playing the game	It is the main stage of the didactic game that involves the effective participation of the students. The aims are: to perform the actions, to observe rules, to involve all students.
6	Complicating the game	It can be achieved by introducing new materials and elements, as well as by increasing the difficulty of the teaching task.
7	Ending the game and evaluation	The game master presents the appraisals and conclusions regarding the playing of the game, the involvement of the participants, their conduct and behavior during the game.

The theme of the game is formulated according to the content and is based on the correlation between the actions of the game and the concrete situation where it takes place. The didactic purpose is the general educational purpose of the game. It should be formulated as clearly as possible and according to the game particularities. Operational objectives are specific, concrete, directly observable, and measurable finalities. Their number may vary depending on the complexity of the requirements. The teaching task is formulated as a thinking problem (recognition, denomination, comparison, etc.) in the form of an operational objective, which comprises a single aspect of the content. The trainer specifies what the students will do consciously and concretely while playing the game in order to achieve the proposed goal. The rules of the game are predetermined and mandatory for all participants. They

regulate the conduct and actions of players according to the particular structure of the didactic game (it shows what is allowed and what is not allowed during the game). Playing the game involves covering all the stages in the established order.

The features of the game are highlighted in the form of competition (individually or in groups), cooperation (community spirit), reward (moral rewards, materials), a penalty in the case of deviation from the rules of the game, encouragement. The didactic strategy consists of the set of didactic procedures involved in the creation of the didactic game, of the didactic materials, and of the optimal forms of organization for the development of the game.

The didactic materials refer to all the materials that will be used in the game. The forms of organization used to make the didactic games are frontal activity and group work. The versions of the game involve either a complication of the game items for students with higher skills in the respective field, or game application to other contexts or areas.

An example of a didactic game that can be played at the disciplines of psycho-pedagogy is "The jar with teaching methods". Its framework can be characterized by the following aspects and constituents.

- *Operational objectives*: O1: to identify two characteristics of the teaching method; O2: to formulate an example of integrating it into a teaching-learning activity
- *Teaching goals*: (1) training the ability to describe teaching methods; (2) developing the ability to integrate the teaching method into a learning sequence.
- *Teaching task*: (1) draw from the jar a didactic method; (2) specify two characteristics and (3) formulate a brief example of integrating it into a teaching-learning activity.
- *Teaching strategy*: (1) teaching methods: the didactic game; (2) educational resources: jar, colored pieces of paper, flip-chart, colored stickers, magnets; (3) forms of organization: frontal, groups; Game elements: group competition, sticker rewards, encouragement
- *Features of the game*: (1) group competition, (2) sticker rewards, (3) encouragement
- *Rules of the game*: Two teams will be formed according to the criteria of the colors drawn: the green team and the blue team. Each member of the team will draw a ticket with a didactic method and will specify two characteristics of the method and an example of integrating it into a teaching-learning activity. For each correct answer, a sticker of the respective color will be awarded. If the answer is not

correct, the sticker will not be offered. The team that gathers most stickers wins.

- *Playing the game*: (1) introducing the game - based on a discussion about the teaching methods; (2) announcing the title and purpose of the game; (3) presenting materials; (4) explaining the rules; (5) playing the game; (6) complicating the game - increasing the level of difficulty, as a result of the introduction of the component elements of the didactic strategy (didactic means and forms of organization); (7) ending the game and evaluating the didactic game.

3.2. Role-playing games

The role-playing game is a part of the simulation methods category, designed and recommended, according to Ioan Cerghit (2006), as methods of exploration and formation, of perceiving dynamic relationships in a system (originally, practiced in the military and economic fields). Essentially, it is about simulating a situation (often conflicting, decision-making), in which players interpret certain roles, functions or sets of behaviors, sometimes very specific, sometimes quite confusing. Following Cerghit (2006) role-playing games can be grouped according to different criteria, which constitute different versions or typologies, as presented in a structured way in Table 3 (elaboration: LM, VMC & GM).

Cerghit (2006) considers that, so far, a multitude of versions of such games, of varying degrees of complexity, have been imagined, experienced and successfully applied, including functional role-playing games, structural role-playing games, decision-making games, forecasting games, competitive games, strategic games, role reversal games, the technique of the enterprise and economic management game, the technique of solving the file with management problems game, organization, and human relations, the technique of the scenarios (scenic dialogues), the technique of the critical incident, the computer game, etc.

The author believes that the simulation game method is experiencing an increasing expansion today. In various and appropriate forms, it can be applied in any learning situation that is suitable for its transposition into a game model. It is adaptable to both the activities specific to the pre-school age, as well as those of the university and post-university education, proving the efficiency both in the teaching of the socio-humanistic sciences and of the natural sciences, in the case of subjects that cannot be taught efficiently in other ways.

Table 3. Classification criteria for role-playing games

No.	Main categories	Subcategories
1	General role-playing games	– games for representing structures, which ensures the understanding of the functioning of some organizational structures, belonging to a socio-economic, socio-cultural, socio-professional system (in history, in economy); – decision games (management science, pedagogy, legal sciences, economics, technique); – arbitration games (legal, financial-accounting sciences); – competition games (sports, drama, literature, legal sciences, history)
2	Specific role-playing games	– educational simulation games; – negotiation games; – the guide and the visitors game; – specific role-play in a service; – role-play in healthcare, etc.

The task of preparing and using the role-play involves several stages: identifying the human situation that is suitable for simulation through role-playing; modeling the situation and designing the script; selecting partners and training them on the specifics and requirements of the role-play; individual learning of the role by each "actor" by studying the role sheet; role performance; debate with all participants on the results, as well as with some observers, evaluation of the results based on which future intentions are established. Moise (2005: 162) states that role-playing begins with explanations or training and role distribution, explaining the work tasks, systematizing data, and ending with some conclusions.

Cerghit (2006) specifies the conditions that underlie the optimal organization of role-plays. The main "condition" of the role-play is to make the participants realize that they are in a learning situation, that they prioritize the cognitive aspect. Also, it is important that the role-play is carried out with all seriousness, as children are inclined to perceive it as entertainment, fun, which prejudices the achievement of preset tasks. In the beginning, after introducing the situation, the objectives, and the rules, the roles are distributed and students are grouped (according to game requirements, affinities of the children, etc.) and a leader is established for each team. It is decided on the roles to be played, defining the responsibilities (tasks), indicating the materials they will need, specifying the number of rounds for playing (if the game requires several rounds, in the course of one or several weeks). As the game un-

folds, the groups and characters identify with their roles (accept or reject the views expressed, adopt functions, positions, attitudes, make their own contribution through their experience and ideas).

Accordingly, the players aim to achieve the objectives in a certain context, regulated on the basis of information already acquired or in the process of being acquired and some accurately specified rules. The situation and the rules determine the force relations that exist between the parties present. Constantin Moise (2005: 162) considers that role-playing games are an exploratory version of a complex combination of teaching methods. According to Muşata Bocoş (2002: 295), the role-play represents "that mode of active and interactive participation of students in the didactic process, which consists of conducting activities to simulate human relations, professions, social statuses, functions, activities, working conditions, facts, situations, phenomena, activities followed by the analysis of representations, feelings, attitudes observed during the character's performance".

An example of a role-play that can be successfully carried out in the disciplines of psycho-pedagogy is the didactic simulation game. Students perform the roles of student and teacher in a particular context to highlight, for example, the teacher-student relationship. The following roles will be distributed: teacher, diligent student, inattentive student, curious student, disinterested student. The behavior of each actor, as well as the characteristic aspects of the teacher-student relationship, will be observed.

3.3. Board games

Within the classical approach in the field of games psycho-pedagogy, two basic categories were delimited: competitive and cooperative. *Competitive games* require players to design strategies that directly oppose other players (Zagal et al. 2006: 24). The goals of the players are diametrically opposed. Many traditional table games fall into this category, for example, chess and checkers.

Unlike competitive games, *cooperative games* present a situation in which two or more individuals have interests that are neither "completely opposite nor completely coincidental" (Nash 2002: 105). There are opportunities for players to work together for the win-win formula. Cooperation games include rules that can be applied to negotiate so that players discover a desirable outcome for the parties involved. An example of a classic cooperative game is the version of the prisoner's dilemma.

Along with the two categories, there is also the category of *collaborative games*, in which all the participants work together as a team, shar-

ing benefits and results (Zagal et al. 2006: 25). If the team wins or loses, everyone wins or loses. Collaboration at the team level is different from cooperation between members in that cooperative players may have different goals and reimbursements, while collaborative players have only one goal and share the rewards or penalties of their decisions. The challenge for players in a collaborative game is to work together to maximize team utility.

As a result of the development of information and communication technology, most board games are also in the digital version, which contributes to the framing of these types of games also in the category of digital games. Board games contribute to the development of students' cognitive skills. Gobet et al. (2004: 53) exemplify the achievement of cognitive operational objectives from simple to complex by referring to Bloom's taxonomy, which ensures the achievement of knowledge, understanding, application, analysis, synthesis and evaluation.

An example of a board game that can be used in the disciplines of psycho-pedagogy is the Monopoly game. The game is useful for approaching financial education in a practical way. Also, the Scrabble game can be used to form representative words for the field of education sciences. Both board games are competitive because they require participants to collect as many points as possible.

3.4. Digital games

According to Dan O'Brien, Kimberly A. Lawless and Peter G. Schrader (2010: 7), there are four general categories of digital games, linear, competitive, strategic, and role-playing. Linear games are those that use linear logic, although the actions used to play them cannot be linear. Although games can be difficult, the stages are sequential. These games require knowledge of information and structured problem-solving. This category includes puzzle games or those games in which the player moves to collect different objects and avoid obstacles. Although participants can play these games together, simultaneously collaborating to achieve success, the difference between linear games and competitive games is that there are other players, real or computer-controlled, that not only block the player but try to win the game.

Competitive games, like linear games, are based on linear logic to solve the presented problems. These games vary greatly in terms of their aesthetic features. A player can be controlled by either a human or a computer, using software that simulates the actions of a real player, or a combination of both. The category of competitive games includes games that simulate real-world sports.

Strategic games involve managing a complex system, which often comes in the form of a city, country, business, or organization. The strategic aspect of these games is resource management, return on investment, military planning, and anticipation of the same strategies for any opponent player. With these types of games, players gain domain-specific knowledge and learn how to apply that knowledge to complex problem-solving in an authentic context, adding value to the learning experience. These games often become extremely complex, which involves managing multiple subsystems simultaneously.

In the role-playing games, players create unique characters at the beginning of the game by reference to different abilities. Each of these abilities represents a score or a percentage, which indicates the level of ability that the character has. With the creation of the characters, there are a number of points that are distributed according to the types of abilities. During the game, a character will be more successful in situations where they resort to higher-level abilities. After the player creates a character, the character must be able to respond to various challenges in order to improve the character's abilities and advance in the game.

An example of making digital games for higher education is the EMERGO project (Ince 2017: 30), which contains a set of tools for developing scenario-based games. The aim of the EMERGO project is to study together at a distance for the active acquisition of complex skills in the context of multimedia and realistic practices through the use of games, simulations, and pedagogical elements.

3.5. Social games

Social games are effective for facilitating interpersonal relationships, building cooperation capacity, stimulating intergroup communication, building group dynamics. Involving students in social games contributes to educating self-control and developing the skills required for interpersonal relationships. Through the game, the student gains confidence in his own powers, becomes cooperative, competent, which contributes to the capacity to adapt to current and future problems. In general, three types of social games are used (*855 games and activities. Animator's Guide* 2005: 5): games for interpersonal knowledge, games for energizing and breaking the ice, and games for cooperation and communication.

Games for interpersonal knowledge can be integrated at the beginning of an activity, training session or a long-term program. The main purpose of the game is to facilitate the self-knowledge achieved within the group, to establish the first contact and the proximity between the participants. Through the proposed activities the members of the group

can find out the first names of the colleagues, the meaning and the origin of their first names, information about certain events in their life, their family, interests, preferences, dreams, and aspirations, etc.

Energizer and ice-breaker games are physical activities that aim to restore energy after a long break or activity. Used with enthusiasm, these games will facilitate the restoration of attention, the efficient transition from one activity to another, creating a positive educational climate. Most games will help students get to know each other and motivate them to work on future projects and activities. These games try to eliminate the aspect of competitiveness by integrating all the members of the group and building team spirit.

The main purpose of *cooperation and communication* games is to consolidate the group and promote efficient communication between the participants. Organizing these games with students contributes to the development of a group's sense of belonging, the ability to make decisions independently and as part of a group, the manifestation of empathy, the free expression of opinions, the development of assertive communication skills.

An example of a social game for interpersonal knowledge is "Everybody in the room shakes hands with everybody else". The group of students forms two large concentric circles – one inside the other. The participants from the inner circle turn to face the participants from the outer circle, they present themselves briefly and warmly shake hands. The outer circle always rotates to the left and the inner circle moves to the right until all participants meet again.

4. The role of the academic teacher in using games

Looking beyond the model of the classical educationalist teacher-centered paradigm, we find that the position and role of higher education teachers have undergone a series of significant transformations. If not long ago, university professors represented/were considered as depositors and transmitters of knowledge, gradually this role has been adjusted. With the advent of the powerful information and communication technologies revolution and the emergence of the paradigm of student-centeredness, the teacher has begun to be a student partner in the formative approaches. The digital progress and revolution, increased awareness of the importance of experiential learning have turned the games into an indispensable method in building sets of skills necessary for the success of the young generation. In the view of Gerhard Molin (2017) games, especially the digital ones, are one of the ways that can contribute

to increasing students' compliance with the training process in the academic environment, bringing education into the 21st century. What is more, Ken Bain means that the success of effectively integrating educational games into teaching-learning activities in the academic environment depends on the availability, the mentoring skills, and the competent guidance of the teacher-trainer. The use of games by academic teachers presupposes that they have high critical thinking skills and are able to structure the learning environment and methods.

The roles of the academic teacher in using the game as a teaching-learning method varies. Below we will list some of the core roles, which must be assumed regardless of the type of game-used or the particularities of the student group:

4.1. The role of the evaluator of the educational context

The evaluator's role requires that the teacher evaluates correctly elements related to (a) analyzing the opportunity to use the game from the perspective of achieving the pedagogical objectives and the objectives regarding the training of soft skills of the students; (b) knowing the particularities of the students in terms of students' interests, the level of motivation, the predisposition to be involved in activities with a playful character and the representation on what the game and individual learning style mean; and (c) another dimension of this role is evaluation of available resources and access to the resources necessary to put games into practice, evaluation of the need to teach in a team/to call on experts, to identify the sources for buying games, licenses, etc.

To cover these dimensions of the role of the evaluator of the entire educational context, the teacher should take moments of reflection to consider whether: (1) the game is the most appropriate method of achieving the educational aims pursued?, (2) the game is appropriate / adapted to the students' training needs?, (3) the content is intended to be transmitted in a gamifiable way?, (4) the proposed game is manageable by the teacher, does he/she need any help?, (5) the dynamics of the game is expected?. Further questions which might be posed in this contexts constitute: (6) What are the additional resources people need and where can they get them?, (7) Have the rules and mechanics of the game been understood?, and (8) Are there any risks or elements that require precautions when playing the game?

4.2. The role of a facilitator

The teacher's involvement must be real and active throughout the game. The involvement of the teacher determines and generates the involvement of the students in the transition from playful elements to the elements with high educational potential. The teacher is the one who should perceive and capitalize on the moments in the game with learning potential both from the aspect of content and that of the dynamics/learning process. Facilitating learning through play also implies that the teacher facilitates the identification of connections with the set of knowledge or skills previously acquired by the students, on the one hand, and on the other hand, contributes to the accessibility/facilitation of the integration path of the new learning/training elements.

In the case of assuming this role some of the reflective questions might be: (1) Can I take responsibility for managing the game?; (2) Can I coordinate the game in such a way that it contributes to the achievement of educational objectives and the building of soft skills?; (3) Do I have the ability to energize, share the behavioral manifestations that can be performed in the game? (slightly disinhibited behaviors and language, explosive manifestations of frustration/joy, warlike alliances and confrontations, etc.); (4) Does the game allow me to activate/control elements related to the learning/training process, beyond its playful aspect?

4.3. The role of a support

In the applications for the use of games in the university environment, the support role covers the specific skills for a game master, but also the ones related to providing assistance for the correct learning of the game and its rules, accessibility and ensuring a comprehensive character for the game, providing assistance/clarifications if needed, catalyst in the process of managing emotions and reactions, encouraging initiative (if the game requires it) and the implementation of personal initiatives, etc.

There are also some other questions which I could pose as specific to my role as a game supporter: (1) Do I have the ability to create the space for the expressions which are valid for all participants in the game (Does the game allow this? If not how will I facilitate this?); (2) Can I intervene discreetly, without affecting the dynamics of the game, to ensure equal opportunities?; (3) Can I facilitate the manifestation/expression of the personal potential of all those involved in the game? (4) How can I use the lessons learned from the game, the dynamics, and the process?

4.4. The role of an observer

Inevitably, but at the same time meaningfully, the role of observer of the process complements the role of evaluator and support. Sometimes, starting from the relaxed atmosphere specific to playful activities, teachers tend to go beyond the boundaries of this role being influenced by the subjectivity of the elements related to the interpersonal relations / sympathies they have with some students and which may affect the objectivity of the observation to a greater extent than in classic approach to the training process. The seduction of the game may, in some cases, cause the player to enter the trance, a phenomenon that would compromise the role of observer.

Maintaining the role of an equidistant and efficient observer could be achieved by reflecting on (1) what I should pursue in terms of content and process by means of this game?; (2) how I will realize that I become subjective/a partisan of one or several team players?; and furthermore, whether (3) I have clearly established the elements that I want to analyze/transmit through the game proposed to the students?, (4) I am able to stay focused during the game in terms of content and process?; (5) I am able to see if the game opens the path, curiosity and appetite for knowledge, and training?

The series of roles detailed above can be supplemented with a series of other roles complementary to those of the core type; in this article, we will limit ourselves to listing only a few of them; of course, both the list and the need for exploration or clarification of other roles remain open: the role of designer, consultant, adjuster, administrator, mediator, motivator, energizer, negotiator, keeper of rules and administrator of rewards, consultant, guide, etc.

For example, the application of the *role-play* requires that the academic teacher has special skills in conducting the activity (Cerghit 2006). This mainly becomes the coordinator of the activity because he/she chooses the subject that becomes the pretext of the game, delimits the area of problems that the game will approach, the specific problems to be solved, sets the didactic and educational objectives. During the game the teacher makes sure that the dramatic action does not deviate from the approached topic, gives directions whenever needed, stimulates, and supports students to solve problems by drawing attention to the action "focus points", providing guidance now and then. It is also advisable to change or reverse (rotate) the roles.

5. Conclusions

As Paul Kleiman states, the game as a method used in the academic environment facilitates the manifestation of creativity, productivity, problem-solving skills, personal transformation, professional development (2008: 214). What is more according to Halverson et al.: "Games are an extremely valuable context for the study of cognition" (2006: 1048).

The use of the game in higher education reveals the influence of the self on society and of society on the self (Halverson et al. 2006: 1048);
The game opens the way to increase motivation for involvement in the education and training process; It creates space for building, identifying and assuming group roles that we can then transfer to the social level; It facilitates access to the multicultural dimension and intercultural exchanges; Through diversity and the possibilities of adaptation they allow the adjustment to different situations and learning training contents.

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A methodological guide on designing games and game scenarios

ABSTRACT. The changing culture in the learning and teaching process, the shift from teacher-centered approaches towards more active, student-centered approaches, led teachers to reflect on the use of games in education. The use of games in the learning process can encourage students to develop higher-order thinking skills, as high quality games involve activities that require the construction, synthesis, and application of knowledge. In order to develop a game, one needs a suitable game design methodology that gives guidance to each individual who decides to develop a game, from the initial game idea to the final product. There are many different methods for developing educational games. We have reviewed different, most commonly used methodologies, and as a result, prepared a new methodology that combines all the features, we have considered essential and important in the development of educational games - a methodology should provide guidance on how to promote communication, creative thinking, adaptability, and cultural awareness when playing the game. A new methodology can be used to create different types of games, especially cooperative role-playing games. Furthermore, it can be also applied as a tool for implementing and evaluating a game in education and as a tool for teaching game design.

KEYWORDS: educational game development, game-based learning, game design, game development methodology, game development processes

1. Introduction

Games have always been an important form of learning, but very rarely have they been used in formal education. If they are somehow used in the earliest stages of development, they cannot be found in the selection of appropriate methods in the more »mature« periods of life, as many teachers believe that teaching and learning are too serious a matter to allow the game to be present in these processes. That is why games were marginalized for a long time.

1.1. Innovative and flexible forms of teaching and learning

Numerous studies have highlighted the changing characteristics of students in the educational process and have suggested the need for a

transition from traditional teacher-centered learning, which is often too abstract, incoherent and out of context, to active, student-centered learning. Using traditional teaching methods, students acquire knowledge at lower taxonomic levels and memorize facts and data without understanding basic concepts. As a result, students may develop misconceptions about the content (Yenilmez & Tekkaya 2006). In order to improve the situation, researchers in the pedagogical field have started to study the impact of innovative didactic approaches on the teaching and learning process. These approaches are collaborative learning, research-based learning, project-based learning, problem-based learning, experience-based learning, game-based learning, etc. (Kaushik 2016; Melero, Leo & Blat 2012; Nicolaides 2012; Baturay & Bay 2010; Dillenbourg 1999; Hsu & Ching 2013; Sun et al 2018). These new approaches enable us to design learning activities that encourage students to take advantage of higher levels of thinking associated with developing the skills needed for the 21st century, which will also improve the employment opportunities of future graduates.

1.2. Encouraging active learning with educational games

These significant changes in the learning and teaching process led teachers to reflect on the use of games in education. Various studies show that the use of games in the learning process stimulates pupils to higher thought processes, as games involve activities that require the construction, synthesis, and application of knowledge. This means that by playing, the player performs activities that are essential in constructivist learning theories. The most important literature from the research area of learning with games shows that educational games have a great potential for learning, but only if they are properly designed (Whitton 2009). Many different approaches, methods, and ideas have been developed on how to organize the process of designing and developing an educational game from the initial idea to the final product.

We have found that traditional methods of game design are often limited in their scope because (a) they lack clear, easily comprehensible, step-by-step instructions; (b) linear processes without iterative development; (c) design and development phases are missing; (d) the personal experience of the designer; (e) information about the process of applying games in higher education is missing; (f) they are not applicable for the development of role-playing games, etc.

Our aim in this article is to present the new methodology which is based on the most commonly used methods for game design and combines all the features we considered essential and important in the crea-

tion of educational games; it provides guidance on how to develop a game that promotes communication, creative thinking, adaptability and cultural awareness.

2. Developing a methodological guide on designing games and game scenarios

The use of games in the teaching and learning process can support innovation and creativity as well as inter- and transdisciplinary approaches. Cooperative games stand for both the innovativeness and the transdisciplinary approach. The games are designed to activate and stimulate the different skills and competences of the students. These skills and competences include communication in a foreign language, creative thinking, adaptability, the ability to work in a multicultural environment and cultural awareness. In order to address all these skills and competencies in game development, we need a properly designed methodology for game development. Since the study is a work within the project *GameIT: Gamestorming for Innovative Teaching*, where one of the main objectives is the development of cooperative role-playing games, we have focused more on the characteristics of this type of game.

2.1. Characteristics of educational game development methodologies

With that in mind, we have summarized the current state of understanding of a role-playing game development methodology. We identified some significant gaps in the existing methods of game development and developed a new method of game development with the emphasis on creating a cooperative role-playing game together with all the constituent elements of its mechanics.

We have reviewed the various scientific literature on the methodology of game development. We qualitatively analyzed 19 different game design methods based on different features. The methods chosen must take into account at least some of the following characteristics: (1) applicability to the creation of role-playing games, (2) relevance to the creation of games to be used in higher education, (3) promotion of communication in a foreign language, (4) endorsement of creative thinking, (5) promotion practicality and cultural awareness, (6) instructions to place the game in a context and background that is universal enough to reach a wide and diverse group of students, (7) instructions for creating different game levels, (8) equitable playing time for the game, (10) instructions for playing in small/large teams, (11), instructions for the development of

characters, (12) instructions for choosing the game mechanics, (13) instructions for the creation of play accessories, (14) preparation of the game manual, (15) instructions for troubleshooting the most common errors in game design.

2.2. An overview of current research on educational game development methodology

As the field of game design has become more and more popular over the last decades and as it has developed a lot of different approaches, methods, and ideas on how to organize the process of designing and developing educational games from the initial idea to the final product, it is necessary to outline the main accepted game design methods in order to understand the gaps in current practices.

The ADDIE method has been developed in the seventies of the previous century at Florida State University for the preparation of teaching materials in the American army. The ADDIE method is the generic process traditionally used by instructional designers and training developers and is the basis for most of the models used in educational content development today. It has been named after the initials of the names of the development phases: analyze, design, develop, implement and evaluate. The five phases provide a dynamic, flexible guide for creating effective educational content, for example, games (cf. Grafinger 1988; Molenda 2003; Wang & Hsu 2009 /2008/).

The SADDIE method is an improved version of the ADDIE method in which the phase of the specification is added as the first phase of the process in which the game designers identify didactic problems in the learning process that cannot be effectively solved with traditional teaching/learning methods, define specific learning objectives and propose an innovative pedagogical method or technique of the game that could effectively solve the problem (Zapušek & Rugelj 2014; Rugelj 2015; Rugelj 2016; Rugelj 2018).

The 10 Steps to Complex Learning is a method that includes 10 steps: Designing learning tasks, sequencing task classes, setting performance targets, designing supporting information, analyzing cognitive strategies, analyzing mental models, designing procedural information, analyzing cognitive rules, analyzing the required knowledge, designing subtask practice (Merriënboer & Kirschner 2017).

The 5/10 method is a combination of the ADDIE method and 10 steps to complex learning. It specifies, according to Johan Jeuring, Rick van Rooij, Nicolas Pronost (2013), 5 phases: analyze (setting learning goals, analyzing learning material and background, analyzing existing

teaching methods, analyzing related learning games), design (designing learning tasks, sequencing task classes, setting performance goals, designing supporting information, designing procedural information, Design challenges and levels), develop (create artistic content, program the game, debug), Implement (implement in the test environment, implement in the teaching environment), evaluate (internal tests, public tests, get feedback).

Karl M. Kapp (2012) has pointed out *11 main issues* that we need to think about *when creating a learning game*. These topics are Learning Goals, Audience, Game Design, Theming, and Story, Choosing a Game Genre/Type, Playing Games, Wireframing, One-Page Design, Paper Prototyping, Storyboard, Design Document.

The MDA (mechanics, dynamics, aesthetics) framework formalizes the consumption of games by breaking them down into their various components: Rules, system, fun, and their design counterparts established. The mechanics describe the individual components of the game, at the level of data representation and algorithms. The dynamics describes the runtime behavior of the mechanics which acts on the inputs of the player and the outputs of the other player over time. Aesthetics describes the desired emotional reactions that are evoked in the player when interacting with the game system (Hunicke, LeBlanc, & Zubek 2004).

Mohini Dutta and Ben Norskov (2016) have prepared 4 guidelines for the flexible game design methodology:

- Forget your gaming culture – they have pointed out that the game should be developed in accordance with the culture in which the players live;
- Use local or unique game assets – this often has the added benefit of creating an experience that lingers longer in people's minds than if you only use normal game assets;
- Design for Conversation – traditional game design methods focus on the turn-to-turn action in a game, but when designing a game with a message in mind, you need to design for lasting impact (encourage post-game conversation);
- Avoid "on the nose" design – in the field of serious games, this term is used to describe games that give the player points for executing the message of the game. This kind of serious game design creates boring scenarios for the gameplay. To avoid this problem, the authors design games about something other than the message of the game.

Natalia Padilla-Zea, Nuria Medina-Medina, Francisco Luis Gutiérrez Vela, J.R. López-Arcos, Patricia Paderewski-Rodríguez, and Carina Soledad González González (2015) present *a process for the incremental design of educational video games with collaborative activities*. This process should facilitate the specification and design of educational and leisure content, while ensuring a balance between educational and playful components. Defined models constitute:

- Models for educational content – main activities:
- Knowledge Areas Design
- Educational Goals Design
- Educational Tasks and Activities Design
- Educational Model Design
- Models for entertainment content – main activities:
- Basic Game Design
- Video Game Challenges Design
- Stages and Levels Design
- Game Model Design

Models for the inter-relation between the educational and the entertainment content and user models for adaption (consists of characterizing the user and characterizing the group).

Mary Flanagan and Helen Nissenbaum (2007) describe a methodology called *Values in Play (VAP)*, which has been developed to analyze human themes in game design and to improve the integration of game elements into the design process. It includes three iterative activities: 1) discovery (designers discover and identify values relevant to the project), 2) translation (designers translate value considerations into architecture and features in-game iterations), and 3) verification (designers verify that the values they aim for have been realized in the game).

Robert T. Hays (2005) proposes *a systematic approach to the design and use of learning games*, consisting of (1) understanding the learning environment (developing problem presentation, developing learning objectives, selecting game strategy), (2) developing the game (developing game model, developing role of students in a game, developing rules) and (3) implementing and evaluating the game (developing supporting game resources, evaluating game in comparison to alternative teaching, modifying game based on evaluation and results).

Pei-Chi Ho, Szu-Ming Chung and Ming-Hsin Tsai (2006) focus on *the development of a role-playing game*. The game integrates problem-based learning with RPG to enhance the student's problem-solving skills and develop a learning strategy. During the game design, they follow the

following phases: analysis phase (learning objectives and learning analysis), development phase (definition of the learner's role and situation, demonstration of problem models), and creative phase (problem analysis, selection, and evaluation).

William R. Watson (2010) communicate about a methodology called *Games for Activating Thematic Engagement (GATE)*, which focuses on introducing learners to a subject through an educational video game. The proposed methodology provides the following steps for game design:

- develop a context, problem space or experiential world and a supporting implementation structure;
- prepare learners to benefit from the game and implement the game as planned;
- provide feedback.

Zhi Han and Zhenhong Zhang (2008) propose a methodology called *Quasi Game-Based Learning* (*Quasi-GBL*) that integrates game elements (such as goal, rule, competition, challenge, imagination, safety, and entertainment) with role-playing in collaborative learning. Game elements are embedded in the role play and presented like real problems, scores, puzzles, awards, and replays. The methodology is presented in seven steps: Grouping, naming the project manager, naming other roles, requirements analysis, design, implementation, and development.

Nor Azan Mat Zin, Azizah Jaafar, and Wong Seng Yue (2009) introduce the *Digital Game-Based Learning-Instructional Design Model* (*DGBL-ID*). The proposed model consists of five different phases: analysis (analysis of requirements and problems, determination of student characteristics, the definition of the learning objective, determination of the game idea, the definition of the teaching environment through the game), design (lesson design, game design), development (develop a lesson plan, develop teaching materials, develop game prototype), quality assurance (check the quality of the game, check the content of the game, improve quality of the game), implementation and evaluation (introduction, evaluation, and modification).

Alan Amory (2001) put forward a *Game Object Model (GOM)* that links pedagogical learning and game elements. The GOM is based on an Object-Oriented Programming paradigm that facilitates complicated game design and development. The GOM consists of the problem space, the element space, the visualization space, and the game space. The game *Space-Object* comprises four motivating abstract interfaces: play, exploration, challenges, and engagement. The visualization of space includes those interfaces that are related to cognitive activities such as crit-

ical thinking, discovery, goal formation, goal completion, competition, and practice, and includes the concrete *Story-Line* interface. The space-object elements include the abstract interfaces of fun and drama and the concrete interfaces of graphics, sound, and technology as well as the interaction of the actors and the gesture. The drama, interaction, and gesture interfaces are part of the actor-space-object. The problem of space-object includes manipulation, memory, logic, mathematics, and reflective concrete interfaces that realize critical thinking, discovery, goal formation, goal completion, competition, and exercise interfaces of the space-object visualization. Amory (2006) has updated the model to GOM II. The new version improves the space problem by integrating the social space and enables GOM to evaluate the games. Sonny E. Kirkley, Steve Tomblin and Jamie Kirkley (2005) *expound the simulation game model Instructional Systems Design (SG -ISD)*, which supports the integration of the development process of instruction systems with the game development processes. The model consists of analysis, concept, design and quality assurance. They rely on the ADDIE model, the spiral design approach, the user-centered instructional design and the waterfall development model for the game. Glenda A Gunter, Robert F. Kenny and Erik H. Vick. (2008) suggest a method called *RETAIN*. This model is based on the principles of instructional design. The model provides guidelines for educators and game designers. The model can evaluate the effectiveness of the games currently being developed and also enable educators to select games for their classes. The model consists of six different parts: Relevance (the context of the game should be relevant, familiar and motivating for learners), embedding (the content should be effectively and carefully embedded in the game, educational content should increase in complexity), transfer (the game should enable learners to transfer the desired learning outcomes from the game environment to the real world), adaptation (games should provide an environment in which learners can learn and adapt continuously), immersion (games should provide an environment in which objectives are clearly defined and challenges are correspondingly difficult) and naturalization (games should be designed to provide a motivating, engaging and immersive environment for learners to play the game).

The game design for the *Spiral Model* strategy consists of four main activities: prototyping, game testing, evaluation, risk analysis and uses the following principles: (1) Evolutionary Development: The game design should be developed step by step and with increasing level of detail, as more experience and knowledge is gained through prototyping and game testing. (2) Incremental Development: The game design should be

developed in steps, with each increment marked with a version number and a set of design features under a configuration baseline. (3) Iterative Refinement: Refine the granularity of the game design iteratively based on experience and knowledge from prototyping and game testing. (4) Progressive Elaboration: Gradually add details to the game design by working out the features of the game design based on experience and knowledge that becomes available through prototyping and game testing (cf. Game Development Lifecycle Models). The game design for *the Waterfall Model* comprises five main phases: requirements, design, implementation verification and maintenance. It is a very frequently used model for different projects (cf. Game Development Lifecycle Models).

As a result of a qualitative analysis of different methods of game design based on scientific results, we have prepared a new methodology focusing on the creation of a cooperative role-playing game. Our methodology supports iterative development, is applicable to the creation of role-playing games, is applicable to the creation of games used in higher education, encourages communication in a foreign language, encourages creative thinking, promotes adaptability and cultural awareness, provides instructions to put the game in a context and background that is universal enough to reach a wide and diverse group of students, gives instructions for the creation of different game levels, determines the appropriate playing time for the game, gives instructions for playing in small/large teams, instructions for character development, instructions for the selection of game mechanics, instructions for the creation of game accessories, gives guidelines for the creation of the game manual and gives guidelines for the preparation of the document to correct the most common errors in game design. As a basis we have used different characteristics that we have found in different methodologies, e.g., we base our methodology on six similar phases as in ADDIE and SADDIE method, we have included the concepts behind the 10 steps to the complex learning method and the 5/10 method, etc.

2.3. A comprehensive model of a cooperative role-playing game

In this sub-part, a developed comprehensive model of a cooperative role-playing game along with all constitutive elements of its mechanics shall be presented. The methodology for creating the game as developed in this phase serves as a basis for the preparation of various role-playing games and has the potential to be used for the development of new games.

The basic principle of role-playing games is their cooperative character and the focus on developing skills such as creative thinking or group

communication. The game development methodology, therefore, includes guidelines for the game makers to always engage all students in the group, to encourage effective communication between the participants, and to inspire the players to look for out-of-the-box solutions to the problems in the storyline. In order for the games to be cooperative, the students should always win or lose as a team without competing with each other. A major focus is also on guidelines for efficient and effective game mechanics, adapted to the needs of the target group and the academic context. As a result of the activities carried out in this area, a methodology of game creation will be developed, covering the phases and themes shown in the following picture (Figure 1., elaboration: SJ, MB & JR).

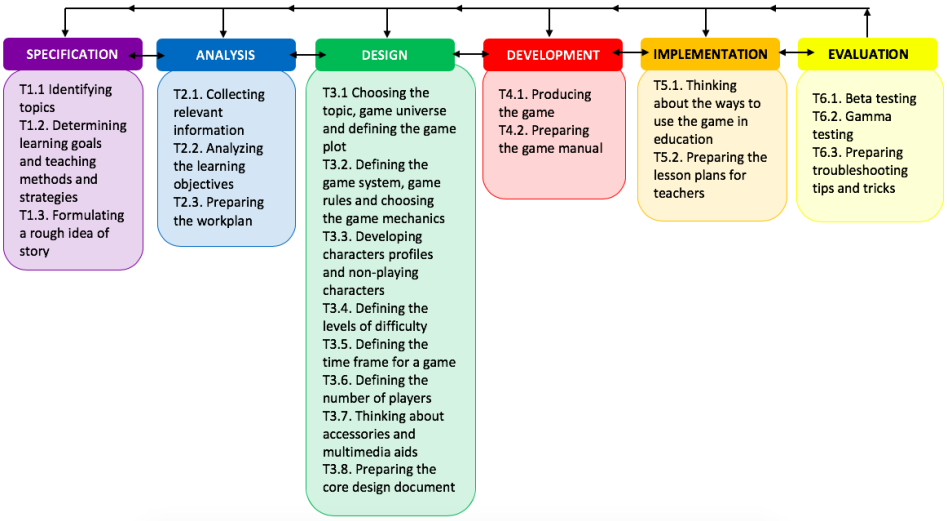

Figure 1. Game-design methodology phases

In the next step, we present each phase in more detail. Each phase is thoroughly described, following Jože Rugelj, Sanja Jedrinović, and Mateja Bevčič. (2018), with examples in the document. A comprehensive model of a cooperative role-playing game includes:

2.3.1. SPECIFICATION phase

Task 1. Identifying suitable topics

In the specification phase, the authors identify from their experience issues in traditional teaching and learning where they and their students need help.

Task 2. Defining learning objectives, teaching methods and strategies

Taking the curriculum into account, they determine the learning outcomes and the didactic method or game technique that will be used to design and develop game elements in the later project phases.

Task 3: Formulate the first idea of the story

It is very helpful if the authors at least formulate a rough idea of the story that will later be the basis for writing a scenario.

2.3,2. ANALYSIS phase

Task 1. Collecting relevant information

In the analysis phase, the authors collect and analyze all relevant information for the game design and implementation. In addition to the data from the specification phase, there is information about the available resources, the users, and the environment in which the games are to be used. The resources required for game production include software tools for story and script preparation.

Task 2. Analyzing the learning objectives and teaching methods

When analyzing the learning objectives, we are mainly interested in the expected level of taxonomic knowledge, appropriate teaching methods, and appropriate playing techniques. Based on the results of the analysis, the authors create a work and time schedule for the further phases of the game design project.

2.3.3. (RPG) DESIGN phase

One can divide the design process into some basic tasks. These can be a good basis for creating a role-playing game.

Task 1. Selecting the theme, the game universe and the definition of the game plot:

- *The story choice* - we must consider the following points when choosing a story: (a) teamwork, (2) a new story in a familiar setting, (3) episodic narrative or easily divisible story into individual sessions, (4) connection with different characters and narratives, (5) several possible solutions, (6) age-appropriate story (Zalka 2012)
- *The mission statements* - with a single sentence we can reflect what our game is all about.
- *Setting context* - we create specific situations in a kind of fiction for player characters game setting - is a part of every game and can be adjusted according to how the players want to play the game. The setting is essential for the animation of the game world and must in-

clude details from the historical and cultural background of the original story (cards, weapons used, languages spoken, clothing worn, etc.). Some of these elements can be defined by the players themselves (character creation, languages, social status) and some of them can be adjusted by the payers during the game. We should think about physical settings (where the game will be placed and how the players will interact), temporal settings (the period of the game should be chronologically accurate), environmental settings (decisions regarding conditions such as weather, temperature, lighting, surface, etc., which should influence the actions of the characters during the game), emotional settings (understanding the emotions of the characters and the background story can influence the decisions of the players during the game), ethical settings (definition of the appropriate age group of the players).

- *Game module* - as mentioned before, it is important that the episodes and scenes in the game are separated, especially in the classroom. This allows educators to stop the game at various points without breaking the connection between the stories, which must form a clear arc of action. Some key scenes need to be included in the story so that the game proceeds fluently: (a) introduction, (b) call to adventure, (c) episodes and scenes, (d) conclusion.
- *Creativity* – it is the most important part of the role-playing games. While designing a game, we should give the players the means to be creative (for example pillars, walls, webs.

Task 2. Defining the game system, the rules and the choice of game mechanics

- *Game system* - the easiest way to create a game is to build it around a role-playing system.
- *Game mechanics* - we should think about using different game mechanics (e.g., dice, cards, coins, dominoes, tokens, point pools, conversation, etc.).
- *Meaningful decisions* - are the main feature of role plays. We have to think about where we can present meaningful decisions.
- *Resolution systems* - at its core, role-playing games are collaborative storytelling with a set of rules that regulate the outcome of various conflict situations. These rules consist of the resolution system and are often the core of the game mechanics for the game. As a resolution system, we can use some of the most common approaches: chance or luck, choice or drama, and certainty or karma.

Task 3. Developing profiles of characters and defining non-playable characters

- *Character options* - after the story and game system have been determined, the following thing to do is to compile a list of playable characters. All characters must have a unique trait and skills or powers. These tell us what the character can do in the game and what they can add to the team as a whole. A balanced team consists of a number of character types. When designing the character options for a game, we have to make sure that we leave enough room for players' creativity and imagination. Usually role-playing games involve the character of the game master, who has the most responsibilities in the game.
- *Non-player characters and mobs* - not all characters from the original story must be playable in the game. There are certain roles that these characters have to play, such as enemies that present a challenge or monsters or non-playing characters that give quests or advice.
- *Distribution of responsibilities* - we should distribute the responsibilities among all players (we should think about who is responsible for controlling the spotlight and attention of the group, explaining the rules, creating non-playing characters, establishing facts about the past and future during the game, etc.)

Task 4. Defining the levels of difficulty

Difficulty levels/modes in games are rarely discussed as an important factor. The difficulty levels offer the player different possibilities. We can change the difficulty level with some common features: the number of opponents/problems encountered; the number of problems caused by the opponents; the number of strength/power of the opponents; the number of problems the player can cause to the opponents; the number of strength/power of the player; the number of strength/power drops in a game; time limit; reduced safe places/situations for the player; resource/power/power stinginess, etc.

Task 5. Defining the time frame for a single game

The time frame for a single game that depends on the goals is to be achieved through the game: (a) Long games (e.g., more than 1.5 hours): Games can be long (a few hours) - in this case, we have to consider creating a game in modules. This way one can end the game after a certain time (e.g. 15-30 minutes, one hour, etc.) and continue the game the next time. In this case, the learning objectives should be hidden in each module of our game and must complement each other. (b) Short games (e.g.

less than or equal to 1.5 hours): In higher education, we cannot afford to play more than 1.5 hours per game. The game, apart from the time it takes, can have demotivating effects on the students if it takes too much time to play. Short games can, therefore, have a greater impact and are more suitable for educational use.

Task 6. Determining the number of players

Within Task 6 of the (RPG) design phase, game designers suggest the number of players. The ideal number of players in a role-playing game is usually between three and eight, but in an average classroom there are usually significantly more students, so the games designed for classroom use must be adapted accordingly (playing in groups; some students play, some observe; several students play one character; playing with the whole class using the turn-based acting system).

Task 7. Considering accessories and multimedia tools for the game

Accessories and multimedia aids offer a level of comfort or convenience that makes playing easier, smoother, and more attractive. Below is a list of some of the most popular accessories for tabletop games: Game mats, card sleeves, card deck boxes, card folders, board game box inserts, carrying cases, dice, dice hoppers, gaming tables, replacement templates, component upgrades, etc. Multimedia represents a broad field that can be incorporated into board game design in many different ways. Some of the basic examples are QR codes, Augmented Reality (AR)/Virtual Reality (VR)/Mixed Reality (MR) applications, video content, graphics, images, music, etc.

Task 8. After considering the basics of the game, participants should think about the core design document

Within Task 8, there are some text pages that participants can refer to during the game design process to inform all their decisions as well as your game testing efforts. They should write their working title for the game, followed by your mission statement, try to answer each of the next questions in turn, and provide answers on their core design document to the following questions: (1) What is your game about? (2) What are your goals for the game? (3) Who is your target audience? (4) What do the characters do? (5) What do the players (including the players, GM if any) do? (6) How does your setting (or lack thereof) reinforce what your game is about? (7) How does the characters' creation reinforce what your game is about? (8) Which behaviors/playing styles are rewarded (and possibly penalized) in your game? (9) How are behaviors and play-ing styles in your game rewarded or punished? (10) How are the responsibilities of

narration and credibility distributed within your game? (11) What does your game do to get the attention, commitment, and involvement of the players? (i.e. What does the game do to make them care?) (12) What are the resolution mechanics of your game? (13) How does the resolution mechanics reinforce what your game is about? (14) Are the characters in your game progressing? If so, how? (15) How does the characters' progression (or lack thereof) reinforce what your game is about? (16) What kind of product or effect should your game create in or for the players? (17) Which areas of your game receive extra attention and color? Why? (18) What part of your game are you most excited about or interested in? Why? (19) Where does your game take players who cannot have, do not have or do not want to have other games?

2.3.4. DEVELOPMENT phase

Task 1. The production of the game

In the development phase, the game designers produce the game. This means that they have to create scene artifacts and all the characters that appear using various graphical tools. The authors approach these time-consuming tasks in different ways. Some of them create all these graphical elements using the software tools. It requires a lot of skill and knowledge of working techniques, but then the further processing of the graphic elements is much easier. Others draw key elements on paper or create key elements from different materials.

Task 2. The creation of the game manual

When you create a new game, you must also create a set of instructions to help others learn how to play. It can sometimes be quite difficult to teach the public a completely new game. You must remember that everything about your game is completely new to your audience. It may take some time to put together a set of game rules. But it is important that they are as detailed as possible.

2,3.5. IMPLEMENTATION phase

Task 1. Considering how to use games in education

Implementation, in the educational context, relies on the application of serious games in a learning process. Very often playing games is a time-consuming process, but teachers have little time to use alternative learning resources in the classroom. Several approaches can be taken to overcome this problem, as, for example:

- game played by students in a classroom as motivation before the other learning activity;
- teacher who plays a game or simply shows individual scenes during the lecture to illustrate a particular concept or a selected topic;
- gameplay as a group activity in the classroom;
- the game as homework as independent learning.

Each of the approaches presented has some positive effects on learning, and game-based learning can only be justified if it increases the efficiency of learning. The game environment can be used to draw the student's attention to what needs to be learned, to motivate the student to engage in other learning activities, to illustrate selected relationships, or to help the player identify with the game character.

A game as a group activity in the classroom is used to encourage cooperation and collaboration with peers in the classroom as well as collaboration with students from other locations. Pupils are responsible for the results in a game and the learning outcomes of the group and the others. Games are not only a means of learning, but they also serve as a tool to initiate a discussion (about their achievements and activities), and to motivate students for different activities.

Task 2. Preparing the lesson plans for teachers

To use games in the classroom, the teacher must at least be familiar with the game. You should be an expert on all rules, levels, characters, etc. at most to guide students through the experience (Routledge 2009). Some games are combined with lesson plans to facilitate a smooth transition into class. Every developer of game-based learning should provide guidance on how to use their games, and as a teacher, you should expect this to be packaged with the game.

The use of games in the classroom changes the way teachers work. Games are no substitute for teachers, but they should improve the teaching experience. Students need the teacher's skills to guide and shape learning. The game is a tool and must be delivered with a learning framework. Teachers need to be able to develop strategies and plans that they can use to assess their students, and by bringing this information together they help them to create lesson plans. They should also think about which other teaching techniques, such as class discussion or creative writing, can be used and which complement the gameplay (Routledge 2009).

Essential accompanying supporting activities in game-based learning that ensure that students understand the purpose of the game and relate the activities during the gameplay to intended learning outcomes are:

- briefing and
- debriefing, which consists of post-game discussion and reflection (Mackenzie 2002).

According to Scott D. Wurdinger and Leslie Marlow. (2005), there are some key things to keep in mind when implementing game-based learning activities:

- the importance of being able to make mistakes
- the importance of personal relevance
- the importance of students understanding why they are doing something
- the importance of matching students with appropriate activities
- the importance of students reflecting on their experience
- the importance of the instructor delegating authority to the students

2.3.6. EVALUATION phase

Task 1. Beta tests

Authors who design and develop a game must also evaluate the game itself and a learning process in which the game is integrated. Authors can initially use peer evaluation in the so-called beta test.

Task 2. Gamma tests

The next step is the gamma test in a school. The authors can ask the students about their opinion on the comprehensibility of the game and evaluate the effectiveness of learning with selected experimental methods. The authors monitor and observe all classroom activities and discuss them with other teachers. All data collected will then be used for revisions and improvements if necessary. The summarized results will also be used to assess the extent to which the objectives defined in the specification at the start of the project have been achieved.

Task 3. Preparing the tips and tricks for troubleshooting

In Task 3 of the evaluation phase, participants prepare advice, e.g. a system of tips and tricks that can help students find solutions to difficult problems, for example by doing some additional class-specific tasks.

3. Conclusions

The main objective of this article has been to present the developed methodology for creating collaborative role-playing cooperative games from the initial idea to the finished project - from the specification, analysis, design, and development phase to the implementation and evalua-

tion phase. The presented methodology is the result of a qualitative analysis of different existing development methodologies. Each of the presented, frequently used methodologies has some features that we have found useful and implement as part of a new methodology. We believe that the methodology we have prepared represents an updated version of various methods, as it describes in more detail some of the most commonly used phrases, includes additional instructions for role-playing and more detailed instructions for use in higher education, with a focus on developing higher-order thinking skills among students.

The offered new methodology promotes the development of games that enable communication, creative thinking, adaptability, and cultural awareness of the players (students). In this way, students will develop the necessary skills for the 21st century, which will improve the career opportunities of future graduates. Future research should explore the new methodology as a tool for developing educational games, for implementation in higher education, for assessing the educational value of prepared games and as a tool for teaching game design.

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Ways of implementing games in humanities

ABSTRACT. There is currently no formal policy framework or guidelines adopted and promoted by educational institutions on implementing games in education. This chapter draws on a literature review type of methodology. Its aim is to highlight competences built and developed through the use of games in general and, more particularly, in the humanities where the competences built and developed by means of games are approached in terms of knowledge, skills, and attitudes. The evaluation of literature has been made in support of highlighting the need and necessity to implement games in humanities on a regular basis. Distinguishing between purpose- and technique-related types of games used for various types of competences achieved at different disciplines, the authors of this chapter aim to provide suggestions on how to incorporate games at the language-specific domains of education and how to use games most efficiently in the classroom. Based on the discussion of such aims, they intend to present a unified framework to allow educators across humanistic disciplines to better understand the advantages and drawbacks of games and simulations specific to their pedagogical goals.

KEYWORDS: competence, games, humanities, pedagogy, simulation

1. Introduction

The scientific field of the use of games in education is extensive and demands ample investigation. This is, probably, the reason why there are currently no formal policy frameworks or guidelines adopted and promoted by educational institutions on implementing games in education. In many countries from Europe, the US and Australia, incorporating games into the curriculum are, for now, the responsibility of teachers and institutions. The lack of official regulations and recommendations may act as a motivational inhibitor to institutions and teachers who would adopt game implementation into their instruction process more eagerly and regularly if supported and encouraged by formal advice.

Despite official recommendations on game implementation in education, interest in the use of games for learning purposes at all educational levels has recently increased, with discussions approaching educational games (Çankaya & Karamete 2009), digital game-based learning (DGBL, Yang 2012), and applied games (van Roessel & van Mastrigt-Ide 2011),

as also revealed by a vast literature (Prensky 2001; Castell 2011; Connolly et al. 2012; Zalka 2012; Cojocariu & Boghian 2014; Rugelj 2015; Rugelj et al. 2018; Boghian et al. 2019). More recently, preoccupations with the use of games in higher education have also become more visible (Chen et al. 2011; Treher 2011; Belotti et al. 2014).

Types of games include, according to Gayla S. Keesee 2012, Ioana Boghian et al. 2019, (1) board games: pure strategy and/or rolling dice, (2) card games/playing cards, (3) video games – humans interact with a user interface to generate visual feedback on a video device. There are several taxonomies to classify video games; however, the majority of academics agree on the following main types of video games, as Begoña Gros (2007) points out, action games, adventure games, fighting games, role-playing games, simulations, sports games, and strategy games. Besides these, Ben Sawyer (2002) has identified and defined serious games as games produced by the video game industry that have knowledge acquisition as one of its main features; Sawyer's distinction was enlarged by Michael Zyda (2005) to include in the definition of serious games those games whose main purpose is not entertainment, enjoyment or fun. Another relevant distinction was drawn between games and simulations: simulations rely on a scenario-based environment, where students interact to apply previous knowledge and practical skills to real-world problems, also allowing teachers to reach their own goals (cf. Andreu Andrés & García-Casas 2011; García Carbonell & Watts 2012).

Simulations help students build skills such as interpersonal communication, teamwork, leadership, decision-making, task prioritizing, stress management, collaboration, knowledge generation, and knowledge sharing (Flanagan 2004; Robertson et al. 2009; McLoughlin & Lee 2008). The main difference between games and simulations may be summarized as follows: games are artificial, pedagogical tools that include conflict, rules, and predetermined goals; simulations are dynamic tools, representing reality, claiming fidelity, accuracy, and validity (Sauve et al. 2007).

Dimitrios Vlachopoulos and Agoritsa Makri (2017: 4) provide a classification of games and simulations based on several criteria and main features of the game:

– in terms of *game type*, depending on whether the game is based on assuming a role, or on a strategic decision-making approach, or on coordination, there are: puzzle, adventure, strategy, logical, action, role playing, business, and serious games; depending on the *delivery mode*: computer, video, digital, mobile, networked, online, web-based, and console/hand-held, 2D-3D, game-based;

– in terms of game *technical characteristics*, namely, strategies, approaches, concepts, techniques, modes, there can be: single-multiplayer, linear-nonlinear, collaborative, competitive, persuasive, synchronous, and immersive;
– in terms of *game learning content* or subject discipline, there can be: games for social sciences, business/management/marketing, languages, mathematics, and science (physics, biology, chemistry, engineering);
– in terms of *game purpose* or *learning goals*, there are: games based on knowledge acquisition, content understanding, motivation, engagement, and skill acquisition.

Whereas some scholars define game-based learning (GBL) as the use of game-based technology to deliver, support, and enhance teaching, learning, assessment, and evaluation (Connolly 2007), we believe that game-based learning (further referred to as GBL) is defined as a type of gameplay, whether in traditional or digital form, which has some clearly de-fined learning outcomes. Thus, in our previous study (Cojocariu & Boghian 2014), we have assumed the perspective of Bryce O Anderson, Michelle N. Anderson, and Thomas A. Taylor, (2009) and presented the distinction between traditional GBL, which has developed since the 70s and digital GBL which is the expression of connecting the teaching process to the new learning technologies, the classic computer and/or other related devices or possibilities.

As digital simulations that engage students in the interactive, authentic, and self-driven acquisition of knowledge, are being adopted in higher education, Connolly and Mark Stansfield (2006) highlight game-based e-learning as a digital approach that delivers, supports and enhances teaching, learning, assessment, and evaluation. In a previous study, we approached the training of career counselors under the impact of the important implications produced by ICT.

On the one hand, we mean a permanent update of their training in line with changes in e-counseling. On the other hand, we are even considering exercising their own reflective thinking that would lead them to leverage their own abilities, tools, and practices, to take appropriate measures to improve without compromising on quality standards and ethics. One thing that should not be neglected, as exposed in the work of Cristina Cîrțiță-Buzoianu et al. 2019, is the development and conscious exercise of critical thinking and perspective thinking skills necessary in selecting the contents, evidence, and resources involved in the education process.

2. Methodology

The *method* used in this research was the literature review. This paper has been designed as an argument for a future experimental study that may highlight the effects of using games in higher education across a pre-established time frame. The search and selection procedure applied to electronic databases and open-ended search period included the keywords "game(s) and education", "games and adult education", "games and humanities". The electronic databases used include, but are not limited to PsycArticles, ERIC, Google Scholar, Web of Science, ProQuest, Scopus, SearchPlus, EdITLib Digital Library, and Academic Search Premier, the latter of which is one of the most prominent databases in academic institutions (Blessinger & Olle 2004). The search yielded a vast number of articles and works on the use of games in education, but a rather limited number of papers on the use of games in the humanities. Also, there were found a number of literature-review papers on aspects related to the use of games in education. The purpose of this research may be formulated in terms of the following *research objectives*:

O1: Identifying how games can enhance higher education;

O2: Highlighting competences (knowledge, skills, attitudes) built and developed through the use of games in humanities and, based on this, arguing for the need to use/implement games in humanities on a regular basis;

O3: Identifying best practices/methods for selecting and incorporating games/simulations in the teaching-learning-evaluation process at the level of higher education, as well as suggestions/best practices on how to incorporate games at various disciplines from the humanities in relation to building and forming various competences;

O4: Building a framework to allow educators across disciplines from the humanities to better understand the advantages and drawbacks of games and simulations specific to their pedagogical goals.

3. Findings and discussions

There has already been conducted a series of literature reviews on aspects related to the use of games in education, such as: advantages and disadvantages of using games in education (Tsekleves et al. 2014); the effectiveness of serious games in relation to learning outcomes (Bellotti et al., 2013); the instructor's role in game-based education (Lameras et al. 2016); requirements for a successful use of games in education; the

use of traditional games versus video games for educational purposes (Young et al. 2012); the effects of digital games on learning outcomes (Clark et al. 2015); the multi-dimensional positive impact of serious games in business education (Fu, 2016); the effects of games and virtual worlds in improving learning outcomes: the findings were that playing games individually enhances student performance more than playing collaboratively (Merchant et al. 2014); cognitive, behavioral, affective and motivational impact of games in education (Connolly et al. 2012); theoretical background and models employed in the study of games and simulations, cognitivism, constructivism as the major theoretical foundations for research on game-based science learning and enactivism, socio-cultural perspective as the emerging theoretical paradigms (Li & Tsai 2013).

Regarding O1, identifying how games can enhance higher education, the literature mentions as outcomes for game-based education the following abilities:

(1) *Abilities related to the thinking process*: a. creative thinking (approaching an issue or problem from different points of view); b. analytic and reflective thinking (analyzing and making judgments about what has happened);
(2) *Practical/organizational abilities* (planning work, organizing resources, dealing with crises and solving problems, getting the job done, measuring progress, and taking calculated risks);
(3) *Self-related abilities* (concentrating for extended periods and reflecting critically on the purposes and aims of learning; gaining, processing and assimilating new knowledge and skills and making use of guidance and support; self-management competences (being self-motivated, acting with confidence, managing and evaluating one's learning, demonstrating flexibility, and initiating);
(4) *Abilities related to others*: (a) working collaboratively during the learning process; (b) improvement of social skills and communication competences; (c) interpersonal competences: empathy, consensus building, negotiating, diplomacy, conflict management - resolving conflict, respecting others, and being a team player; (d) cultural awareness and expression (cf. Sawyer 2002; Anderson et al. 2009; Milczynski 2011; Young et al. 2012; Charlier et al. 2012; Connolly & Stansfield 2006; Connolly et al. 2012; Keesee 2012; Bellotti 2013; Erhel & Jamet 2013; Whitton 2012; Tsekleves et al. 2014; Rugelj 2015; Clark et al. 2015; Rugelj 2016; Cojocariu et al. 2017; Rugelj 2018; Vlachopoulos & Makri 2017; Ince 2018).

Acquiring social competences implies learning certain behaviors and manifesting them in everyday life; children, as well as adults, who either have or need to improve such competences may benefit from games. Formal and informal education of children and adults shapes knowledge, skills, and social competences; social competences are a must in the context of today's labor market (Paczyńska-Jędrycka 2016). Given the needs for life-long learning and learning together generated by an increasingly versatile, multicultural market, several skills formed and built by gaming have been highlighted to connect education and games, as the latter provide an opportunity to practice: multimodal literacy (Gee 2007), rhetoric and persuasion skills, problem-solving (Squire 2011), decision-making on solutions for real-life issues (McGonigal 2011), collaborative learning (Staudt Willet et al. 2018). Games provide hands-on and heads-on skill and knowledge development for people of all ages on all subjects; well-designed games create an engaging, nonthreatening yet competitive class atmosphere. While playing games, students focus on content to reinforce and apply learning (cf. Treher 2011; Copeland et al. 2013; Greenhalgh 2016).

Regarding O2, highlighting competences (knowledge, skills, attitudes) built and developed through the use of games in humanities and, based on this, arguing for the need to use/implement games in humanities on a regular basis, we should, first and foremost, enumerate the 21st-century key competences established by official documents and then define competences characteristic of the humanities so that we may eventually outline competences developed through the use of games at disciplines from the humanities.

The key competences established by the EU Recommendation (Council of the European Union 2018) are competences that individuals need for personal fulfillment and development, employability, social inclusion, sustainable lifestyle, successful life in peaceful societies, health-conscious life management, and active citizenship. These are developed in a lifelong learning perspective, from early childhood throughout adult life, and through formal, non-formal and informal learning in all contexts including family, school, workplace, neighborhood and other communities. In the knowledge of society and the knowledge of economy, memorization of facts and procedures is key, but not enough for progress and success. Skills, such as problem-solving, critical thinking, ability to cooperate, creativity, computational thinking, self-regulation, are more essential than ever before in our quickly changing society as far as these are the tools to make what has been learned work in real-time in order to generate new ideas, new theories, new products, and new

knowledge. The European Reference Framework sets out eight key competences for lifelong learning: literacy competence; multilingual competence; mathematical competence and competence in science, technology and engineering; digital competence; personal, social and learning to learn competence; citizenship competence; entrepreneurship competence; cultural awareness and expression competence (cf. Council of the European Union 2018).

The Tuning Educational Structures in Europe (2007) started in 2000 as a project to link the political objectives of the Bologna Process and at a later stage the Lisbon Strategy to the higher education sector. The general competences formulated within this project comprise abilities and skills that particularize on the scope of the key competences mentioned above: ability to communicate in a second language; capacity to learn and stay up-to-date with learning; ability to communicate both orally and through the written word in first language; ability to be critical and self-critical; ability to plan and manage time; ability to show awareness of equal opportunities and gender issues; capacity to generate new ideas (creativity); ability to search for, process and analyze information from a variety of sources; commitment to safety; ability to identify, pose and resolve problems; ability to apply knowledge in practical situations; ability to make reasoned decisions; ability to undertake research at an appropriate level; ability to work in a team; knowledge and understanding of the subject area and understanding of the profession; ability to work in an international context; ability to act on the basis of ethical reasoning; ability to communicate with non-experts of one's field; ability for abstract thinking, analysis and synthesis; spirit of enterprise, ability to take initiative; interpersonal and interaction skills; ability to design and manage projects; ability to act with social responsibility and civic awareness; determination and perseverance in the tasks given and responsibilities taken; appreciation of and respect for diversity and multiculturality; ability to work autonomously; skills in the use of information and communications technologies; commitment to the conservation of the environment; ability to adapt to and act in new situations; ability to evaluate and maintain the quality of work produced; ability to motivate people and move toward common goals. Besides these generic competences, Tuning distinguishes among subject-specific competences. We believe that all the general competences enumerated above may be built and developed in the teaching-learning-evaluation process from disciplines in the humanities.

The humanities domain comprises academic disciplines that study aspects of human society and culture. Such disciplines fall into one of the

main fields further enumerated: anthropology, archaeology, classics, history, linguistics and languages, law and politics, literature, philosophy, religion, performing arts, visual arts. Hence, the disciplines included in the domain of the humanities are numerous, for example, ancient and modern languages, linguistics, prose, poetry, drama (in the fields of linguistics and languages, literature); philosophy, logic, ethics (philosophy); historical musicology, ethnomusicology, and music theory (musicology); acrobatics, busking, comedy, dance, film, magic, music, opera, juggling, theatre (performing arts); the history of visual arts, drawing, painting (visual arts), etc.

To further particularize on competences for the 21st century in relation to the aim of our paper, it is important to know the skills and knowledge typical for a humanities graduate as well as what distinguishes humanities graduates from other graduates; this enables humanities graduates to 'sell' themselves and explain their added value to an organization and/or company that launches a job position offer. The competences formed at disciplines from the domain of the humanities are defined and expressed most accurately by universities that provide study programs in fields from the humanities. One classification of competences in the humanities comprises the following abilities and skills (Metzl & Hansen 2014):

– *narrative and historical perspective*: the narrative component of this competency trains students both to understand how stories work and to analyze the stakes and effects of the particular plots and conventions from the professional and popular cultures of various domains of everyday life (e.g. health); students are taught to see how stories are built from what is said, from what is not said, and from the material, social, and cultural factors that shape those narratives, as well as understand the complexity of point of view and the degree to which our stories are never wholly our own, encouraging them to consider what our ethical obligations are given the structural and interpersonal complexities of narrative; a competence in historical perspective equips students to understand how, why, and under what conditions the historical change happens;
– *critical attention and observation*: students approach critically and carefully various topics and become better observers; this competency prepares students to answer questions that include: What are assumptions, technologies, and ways of thinking structure our observations? What are the histories of observation and attention and what can we learn about our own ways of attending and observing from this history? How do different disciplines and interdisciplinary ap-

proaches help us attend and observe differently—particularly in ways that make space for ways of knowing that are different from our own? How can we work toward ways of attending and observing that are more ethical, equitable, and inclusive? And how can we remain aware of the ways in which our own methods and observations have been shaped by our training and lived experience and work toward remaining open to new ways of seeing and knowing?
– *ethics and judgment*: moral values and principles, such as justice, beneficence, and non-maleficence govern all domains of human life; these values often present conflicting recommendations and it is often unclear what each value or principle recommends; this pair of competencies prepares students to understand and adjudicate these difficulties, preparing them to make responsible informed decisions; a key component of this competency is a rigorous and informed analysis and an ability to articulate and identify value-laden judgments.
– *creativity and performance*: creativity is an asset valued in any domain; analytical creativity is built by challenging students to think outside the box, to cultivate curiosity, to ask different questions, and to develop their thoughts on various topics in alternative formats and from alternative perspectives that help students make new connections; some courses training analytical creativity do so from the perspective of the performative arts—music, art, and creative writing;
– *social and structural proficiency*: this competency challenges students to recognize how social, environmental, and biological forces interact to promote the well-being of a person; students learn how systemic forms of injustice and exclusion (such as racism, sexism, homophobia, and ableism) lead to disparities in one's life (which may include poor health, poor financial status, etc.) (Northeastern University, Humanities Center 2019).

Another classification of *humanities professional competences* includes the following:

– the ability to communicate effectively, more specifically to write critically and speak persuasively;
– the ability to navigate cultures, namely cultural literacy, and language proficiency;
– the ability to *synthesize ideas*, that is, to *gather and interpret information* (Birmingham Young University 2019).

With respect to competences (knowledge, skills, attitudes) built and developed through the use of games in the field of humanities, the literature reveals that games encourage players to *perform life-like behaviors*

and *activities* by reading articles, acquiring membership to a certain group/association, negotiating/selling/buying/trading assets and/or information, and, where the game allows it, posting game reviews and comments to an existing database (Bret Staudt Willet et al. 2018: 1). Hence, games build the competences defined as professional competences for the humanities, enumerated above.

The game's visual and tangible elements (cards, dice, etc.) act as *visual metaphors*; such visual metaphors engage players/students in connecting information/content and act as vehicles for learning. Game strategies based on questions, problems, and challenging situations engage the students' critical thinking, problem-solving, information-organization, and practical skills, enhancing peer learning; games also provide the opportunity to diminish the risk of students with lower levels of knowledge to feel exposed.

The questions that keep the game going check understanding and help identify learning gaps or learning errors; also, board games or role-playing games are a great way to transform abstract concepts into something more tangible and thus support the acquisition of notions otherwise difficult to teach. The demands of various learning styles may be addressed through games as well.

The competences identified as being formed and/or developed at students by applying a game-based approach to disciplines from the humanities may be translated into learning outcomes. The effects of using games in higher education materialize as *learning outcomes* or *specific objectives*, namely students are able to:

(1) face daily situations successfully;
(2) exchange and learn how to exchange information and ideas, and communicate thoughts and feelings;
(3) know and better understand the way of life and mentalities of other peoples if the game provides them an intercultural approach;
(4) exploit their own needs, motivations, characteristics, and resources;
(5) define valid and realistic objectives;
(6) perform self-evaluation; game-based education raises the learner's awareness of the present level of his/her knowledge;
(7) identify, analyze, and select the best strategies for work, teamwork, or group work, problem-solving, conflict management, etc.;
(8) think creatively, analytically and reflectively, self-organize, self-manage and focus for extended periods of time;
(9) seek or make use of guidance and support, work collaboratively;
(10) interact, communicate, build, and maintain relationships.

In their study on a competence-based approach to training students in the humanities, Elena Korytova, Olga Zandanova, Larisa Chukreeva, Evgenyia Radnaeva, and Lyudmila Yabzhanova (2015) have highlighted 3 main functions or parts of a game:

– *the analytic part:* analysis of the tasks that will be performed during the game;
– *the functional part:* development of organizational and technical measures and activities that will be performed during the game;
– *the cognitive function*: students practice communication techniques (asking for information, negotiating, diplomacy strategies), decision making, connect the obtained knowledge or skills in their own study activities.

While playing, students develop positive thinking, spatial imagination, creativity, the ability to make independent decisions, team work; students also acquire behavioral norms most effectively in game-based education. Games based on situational problems (tasks) are a good opportunity to form the following competences: management, organizational, socio-cultural, strategic (tactics and operative components); also, the generic cultural competence is formed while playing such games, namely: "the pursuit of individual and professional self-development, the ability to set priorities, to set personal goals and the ability to study by own experience and that of others" (Korytova et al. 2015: 275).

In conclusion, game-based learning has been found to be highly effective in terms of cognitive outcomes as it promotes: *knowledge acquisition* (Smettana & Bell 2012; Backlund & Hendrix 2013; Boyle et al. 2015; Clark et al. 2015; Warren et al. 2016); *content understanding* and *concept learning* (Connoly et al. 2012; Li & Tsai 2013; Fu et al. 2016); *self-efficacy* and *transfer of learning* (Gegenfurtner et al. 2014). Regarding O3, identifying best practices/methods for selecting and incorporating games/simulations in the teaching-learning-evaluation process at the level of higher education, as well as suggestions/best practices on how to incorporate games at various disciplines from the humanities in relation to building and forming various competences, we should mention, first and foremost, the conditions that need to be met for the successful use of games in education, namely: the specificity of the game, its integration in the course, the role of the guiding instructor (Bellotti et al. 2013).

Digital animation, augmented reality, gaming, collaborative platforms for working and for leisure are very familiar to students. The educators' role is to make them aware on the temporariness of the information. The language that the students use in communication, the infi-

nite, creative possibilities of expressing ideas by means of the new tools raise challenges for the academics too. (Nechita & al. 2019).

Another suggestion is that games should be treated as supplementary elements to existing teaching techniques or as a partial substitute for traditional teaching methods (Rutten et al. 2012). Games introduce open worlds and multimedia interactions and when we refer to gaming in the humanities, we exceed traditional reading and writing skills. Digital games demand new ways of perceiving, teaching, and working. The process of integrating computing in the humanities requires curriculum innovation, teacher training, and new education policies. Games may be difficult to integrate with digital humanities, but they are a key cultural form and critical field of negotiation in which humanists, scientists, and educators might productively experiment together.

Games have been approached from the perspective of multimotivational theory to highlight the connection between game characteristics and game effects upon the players (Garris et al 2002; Wood et al. 2004); game characteristics with a relevant impact on the players are:

- *fantasy*: imaginary or fantasy context, themes, or characters;
- *rules or goals*: clear rules, goals, and feedback on progress toward goals;
- *sensory stimuli*: dramatic or novel visual and auditory stimuli;
- *challenge*: optimal level of difficulty and uncertain goal attainment;
- *mystery*: optimal level of informational complexity;
- *control*: active learner control.

The structural characteristics of (video) games include sound, graphics, background and setting, duration of the play, rate of play, advancement rate, use of humor, control options, interactional dynamics, winning and losing features, character development, brand assurance, and multiplayer features, all of these contributing to the impact on the player. Briefly, educational games can be broadly defined as rule-based activities that teachers use during classes. However, teachers who want to use games in class for teaching purposes should be aware of more complex definitions of games, for example: a game is a set of more or less elaborate rules that provide a framework for achieving a goal based on available resources (Inbar & Stoll 1970: 54); a game is an activity with rules, a goal and an element of fun (Hadfield 1990: 5); a game is a form of play governed by rules (Byrne 1995: 15).

In terms of learning foreign languages, games are an effective method to teach grammar and vocabulary. For literature classes, role-playing games provide a rich context for achieving cognitive outcomes, as noted

above, namely *knowledge acquisition*, *content understanding*, and *concept learning*, *self-efficacy*, and *transfer of learning*, as well as all the competences identified in relation to O2.

Furthermore, we shall present a role-playing game structure that may be adapted for application at various disciplines from the fields of humanities at higher-education students: classic and modern languages and literature, philosophy, visual arts, musicology, performing arts. The structure of the game has been developed by the authors, together with three other colleagues from the Vasile Alecsandri University of Bacău, Ro-mania, within the Erasmus+ project *GameIT: Gamestorming for Innovative Teaching*, 2017–2020.

The game is called *The Labyrinth*. According to the story of the game, there are 2 teams, each team consisting of four characters for four different players: Hero, Advisor, Storyteller, and Guardian. The Guardian is a stress factor, as he/she is a member of the competing team. The Hero and his/her team travel across a country (e.g., Romania). On their journey through the labyrinth, they have to overcome a series of obstacles to move forward. Helping each other, they succeed in covering all the three levels of the game and exiting the labyrinth. The goal of the players is to exit the labyrinth by traveling across the country within a fixed time limit. All the team members should join forces to help the Hero reach the country exit point. They have 45 minutes to overcome all obstacles.

At the beginning of the game, each player draws a role or character card under the gamemaster's supervision (the gamemaster is the teacher); then they form teams as follows:

Team 1. Red Team: Red Hero + Red Advisor + Red Story teller + Blue Guardian
Team 2. Blue Team: Blue Hero + Blue Advisor + Blue Story teller + Red Guardian

Before the game starts, each player presents his/her character by reading what is written on the role card. The roles on the cards comprise a brief description of the character and the actions that the respective player may perform, for example, the Hero is assertive, he/she initiates and maintains discussions and negotiations. He/she is passionate, altruistic, honest, and a peace lover. He/she loves and protects animals and nature. He/she is a traveler, an explorer, with good diplomatic skills. The Hero draws the Labyrinth map with Tasks. To solve each task, he/she does one of the following actions, according to what is available for each task: (1) Answers/perform the task all by himself/herself; (2) Asks for Resources from the Advisor; (3) Finds the answer by solving a puzzle

from the Guardian; (4) Finds the answer on the map; (5) Searches for clues on the Internet to be able to perform the task.

The labyrinth map is a series of various tasks that the Hero must solve to be allowed by the Guardian to move forward to the next level, for example, quiz-like questions; tasks that involve writing and telling a story; riddles; describing a food recipe; performing a fragment from a folk dance; performing a fragment from a song; finding clues on a map; finding the answer by means of helping clues; solving a puzzle.

There are 3 levels in the labyrinth, each level comprising 6 tasks, designed with growing difficulty. At the end of each level, at the Exit point, the Storyteller and his team have to make a story and tell it to the Guardian. After hearing the story, the Guardian allows them to exit the respective level and start the next level of the labyrinth.

Before starting the next level, the players change roles by drawing different role cards under the gamemaster's supervision, making sure that they have now drawn a different role. The Hero enters the labyrinth with 1 LEU and, throughout the game, is allowed to buy only 1 answer. The Hero is rewarded by the Guardian with 1 LEU (Romanian currency) for each task that he/she solves all by himself/herself (namely, without any resources from the Advisor, puzzles, map, or the Internet).

The Advisor holds the *Book of Resources* and provides the Hero with resources upon the Hero's request. The Advisor is not allowed to provide the Hero with the answer but helps the Hero to solve/perform all the tasks. The Guardian holds the Treasure chest and the puzzles and can sell only 1 answer to the Hero throughout the entire game. The Guardian also holds some money to be able to reward the Hero. The Guardian also keeps track of the total amount of time for finishing the game by exiting all the 3 levels of the labyrinth: 45 minutes. The use of information technology devices to find the answers to the tasks is allowed only for those tasks where this is mentioned. For the rest of the tasks, this is forbidden.

The game ends when one of the teams exits the labyrinth first after having overcome all the obstacles from the 3 levels. The game also ends when the 45-minute time limit for playing the game has expired, irrespective of whether the teams have completed all the 3 levels and exited the labyrinth. There are two versions of the game:

> *Version 1*: a game for 2–4 players, with no competitive team and no competition element; the game ends either when the 45-minute time limit is up, or when the players exit the labyrinth;
> *Version 2*: a game for 6–8 players, forming two teams that will be competing to exit the labyrinth first.

These types of role-playing games have the following learning goals:

Goal 1: students increase their knowledge in a certain field (in our case, cultural knowledge);
Goal 2: students practice and develop communication skills in English;
Goal 3: students practice and develop soft skills: leadership skills: e.g., decision making, team communication, negotiation; management skills: e.g., time prioritization, interpersonal skills, communication, financial management;
Goal 4: students practice and develop intercultural awareness related skills: perspective switching, observation, empathy, decision making, taking practical and effective actions.

The tasks may be adapted and modified to suit the contents of a certain discipline or its investigative domain. Among them, one could consider, for example, language teaching practice – grammar, vocabulary, or literary studies, philosophy, logic, ethics, and the like. Objective O4 is related to building a framework that allows educators across disciplines from the humanities to better understand the advantages and drawbacks of games and simulations specific to their pedagogical goals.

In terms of *advantages*, the literature review revealed relevant effectiveness of games at the cognitive, affective, and behavioral level:

– At the *affective* level, games: promote a positive attitude towards learning; involve all the students in a class in active learning and keeps them motivated; provide a certain level of satisfaction (Ritzhaupt et al. 2014; Tsekleves et al. 2014; Fu et al. 2016; Carenys & Moya 2016).
– At the *behavioral* level, games: connect learners and help them build self-constructed learning; support experiential learning; provide a setting for collaborative learning, interactivity, and feedback among players, build social and soft skills (Young et al. 2012; Girard et al. 2013; Merchant et al. 2014; Anderson et al. 2009; Whitton 2012; Cojocariu & Boghian 2014).
– At the *cognitive* level, some studies show that there is no effect of using games in learning (Young et al. 2012; Girard et al. 2013; Merchant et al. 2014), whereas others do argue that games enhance the acquisition of learning content and consolidation of previously acquired knowledge (Peng 2009; Suh, Kim & Kim 2010; Nishikawa & Jaeger 2011; Arnab et al. 2013; Badea 2015). Moreover, it has been generally accepted that games build higher cognitive skills and operations, such as *memory*, *retention*, *attention*, *logics*, *abstraction*,

generalization, *analysis* and *synthesis*, *comparison*, *systematization*, *particularization*, *creativity*.

The *disadvantages* of using games in education include:
- game-based learning may be time-consuming and time management may be difficult during the game;
- the risk that students/players may consider the game activity as mere entertainment and address it with less responsibility and seriousness, or they may fail to see the learning goal;
- difficulty to identify the acquisitions made by students, as well as possible flaws/gaps in the evaluation.

To conclude on advantages and disadvantages in relation to using games in teaching, the literature argues that game-based learning is a type of gameplay with clearly defined learning outcomes: it combines subject matter with gameplay and the player's ability to retain and apply the subject matter to the real world in a balanced way; it is approached in terms of the educational method, didactic procedure, and organization of the teaching-learning activity.

Modern theories of effective learning have shown that learning is most effective when it is active, experiential, situated, problem-based, and pro-vides immediate feedback; games have all these features (Connolly et al. 2012; Popescu 2014). Team-based games help to build communication and relationship skills: players work face-to-face to answer questions or solve problems and realize that working together makes them better and faster at finding solutions and implementing them. Board games are a great way to make players/adults become aware of the strengths of collaboration; in organizational settings, this awareness may really trans-form working relationships for the better (Elizabeth Treher 2011: 4).

Based on the literature, we have elaborated a framework to allow educators across disciplines from the humanities to connect the advantages and drawbacks of games and simulations to their pedagogical goals and thus make an informed decision when choosing games for their classes. The framework connects the disciplines from the humanities with types of games suitable for various pedagogical goals or learning outcomes, which are broken down into three categories: cognitive, behavioral and affective, as revealed by the literature; the list of games presented in Table 1 is not exhaustive as there are many types of games suitable for the humanities, many of them with several versions (Table 1, elaboration: IB, CP & CCB). The selection of the games included in the table aimed to illustrate games that are structurally different.

Table 1. Games at disciplines from the humanities and the corresponding pedagogical goals

Games	Pedagogical goals/learning outcomes		
	Cognitive outcomes	Behavioral outcomes	Affective outcomes
Icebreakers	comprehension	participation; communication/interactivity; collaboration/coordination; reflection; feedback	engagement; enthusiasm; interest; satisfaction; recognition
Role-playing games (digital and classic) Computer games Board games and card games	decision-making; problem solving; comprehension; knowledge acquisition; conceptual change; transformative, situated and experiential learning; conceptual application, spatial cognition; content understanding; critical thinking; knowledge retention; metacognitive skills (self-awareness, self-assessment)	perceptual motor skills; participation; team work; project management; leadership skills; organizational skills; adaptability; ability to solve conflicts; transfer of learning; social skills, further classified as immersion, scaffolding, communication/interactivity, collaboration/coordination, reflection, feedback	engagement; enthusiasm; interest; satisfaction; challenge; motivation particularized as self-efficacy, effort; self-assessment; recognition; emotions; attitudes
Current affairs quiz	knowledge acquisition; conceptual change; transformative, situated and experiential learning; conceptual application, spatial cognition; content understanding; critical thinking; knowledge retention	perceptual motor skills; participation; team work; project management; leadership skills; organisational skills; adaptability; social skills	engagement; challenge; motivation; emotions; attitudes
Colonization timeline	problem solving	cooperation	challenge

Picture-to-story games	content understanding; critical thinking; knowledge retention; creativity	organisational skills; adaptability; reflection, feedback	engagement; satisfaction; challenge; motivation; recognition

Table 1 summarizes the following outcomes:

– *cognitive*, such as decision-making, problem solving, comprehension, knowledge acquisition, conceptual change, as well as transformative, situated and experiential learning, conceptual application, spatial cognition, content understanding, critical thinking, knowledge retention, or metacognitive skills, seen as self-awareness and self-assessment (Vos & Brennan 2010; Erhel & Jamet 2013; Crocco et al. 2016).
– *behavioral* – perceptual motor skills, participation, team work, project management, leadership skills, organizational skills, adaptability, ability to solve conflicts, transfer of learning, social skills, further classified as immersion, scaffolding, communication/interactivity, collaboration/coordination, reflection, or feedback (Ranchod 2014; Vos & Brennan 2010).
– *affective* – engagement, enthusiasm, interest, satisfaction, challenge, motivation particularized as self-efficacy and effort, self-assessment, recognition, emotions, or attitudes (Auman 2011; Liu et al. 2011; Lu et al. 2014; Dzeng 2014; Lancaster 2014).

5. Conclusions

The main goal of games-based learning is to apply the advantage of gaming technologies in order to create an interactive virtual learning environment. One of the significant changes experienced in the education sector is the change in the learners' attitude and motivation towards learning. Games can be platforms for creating knowledge.

The study of games crosses disciplines and the new model of digital humanities emerged with the new context of digitalization. "Digital humanities is an umbrella term for a diverse set of practices and concerns, all of which combine computing and digital media with humanities research and teaching. Analyzing video games, for example, or other born-digital cultural objects, using combined humanities and computational approaches, is also part of the field" (Jones 2014). It is only recently that computer games have become the subject of serious humanities inquiry

and that the learning process in humanities is a form of play. By using games in humanities, we redefine the playfulness of representation and interpretation.

Games play an important role in the (de)codification process and serve to link the culture of knowledge with interactive reality. Using games in educational contexts supports students in building interpersonal, analytical, and creative skills, while discouraging absenteeism, removing feelings of boredom and reluctance, and hence fostering academic achievements. Also, games promote the constant professional improvement of teachers who apply them for educational purposes, as games in higher education need to be challenging and focused on higher levels of the learning content.

Despite the potential learning benefits derived from a game-based approach to education, the connection between games and curricula should be established in official documents that regulate the education process at all levels, so that teachers may be officially encouraged and motivated to foster learning through games. Collaboration is an essential aspect of the learning process; not only do games enhance collaboration among students, but also among students and teachers, as the learning environment resembles a work context defined by problem-based situations and active collaboration. Also, faculty and university decision factors should support teachers in applying game-based learn-ing by facilitating technical support involved, as well as teacher and student understanding of the benefits of such an approach.

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GameIT: Gamestorming for Innovative Teaching – A retro- & prospective outlook on the project

The project *GameIT: Gamestorming for Innovative Teaching* was carried out in the period September 2017 till August 2020 under the Program Erasmus+ Strategic Partnership by the consortium of four European collaborators: Philological School of Higher Education (WSF), Poland, Vasile Alecsandri University of Bacău (UB), Romania, University of Ljubljana (UL), Slovenia and Western Norway University of Applied Sciences (HVL), Norway. The main goal was to improve the quality of didactic methods and tools for humanities at the four partners' higher education institutions by designing and implementing innovative cooperative games developing competences indispensable in the 21st-century labor market.

The multidisciplinary character and complexity of the project required the engagement of all international participants. Each national team involved in the project greatly contributed to final intellectual outputs – they willingly shared their expertise within the area of teacher training pedagogy, the methodology of teaching in specialized fields, activating forms of education, information and communication technologies (ICT) applications in university education, innovative approaches in the methodology of teaching and learning, as well as, eventually, the idea of gamification and game-based learning.

1. On the experiences and contributions of project participants

Colleagues from the Faculty of Education of the University of Ljubljana, who played a vital role in the *GameIT* project, specialize and conduct thorough research on game-based learning, adaptive learning materials, learning environment, learning with and through multimedia and ICT- assisted education. The Slovenian team members boast of participation in several national and international research projects dedicated to game-based learning as part of teaching strategy in primary, secondary, and academic education. Their internationally acknowledged

achievements have been presented in publications and at international academic events. Some of their recently developed methods have already been adopted in a teaching process on undergraduate, graduate, and post-graduate levels.

Norwegian lecturers from the Faculty of Teacher Education, Culture and Sports, Western Norway University of Applied Sciences, have shared their impressive know-how in the field of active and interactive teaching and ICT solutions in education and methodology of teaching. Their characteristics are the focus on the usability and practicality of academic education. Moreover, they are known to carry out a number of community-focused and internationally oriented research activities. Their intellectual potential strengthened by participation in numerous international projects, going beyond applications of ICT, is targeted at raising soft skills such as interpersonal communication, international teamwork, national and intercultural awareness, etc. The Norwegian team members specialize in cross-cultural communication, sociolinguistics, intercultural competence, use of ICT in education and other innovative teaching techniques, learning through art, visual literacy and using art as a medium to incorporate multicultural aspects into teaching.

The members of the Romanian project team are lecturers from the Pre- and In-Service Teacher Training Department of the Vasile Alecsandri University of Bacău, whose graduates are qualified teachers in the field of education, psychology, engineering, letters, science or economic sciences. Specialized teaching methods developed and employed at UB are applied in various fields of study depending on specificity. The objective is to activate learners and raise the efficiency of students' study. For years, Romanian colleagues have carried out intensive research on innovative solutions in the methodology of teaching, thus, participation in the *GameIT* project was an opportunity to demonstrate and apply their achievements in the field of didactics.

The leader of the project – Philological School of Higher Education offers academic study programs in humanities, i.e., modern language studies, German, Spanish, Italian, and Norwegian with specializations in teacher training, the language in business and translation for a specific purpose. Courses are conducted in a relevant language by international staff. WSF has wide experience in both coordinating and participating in various partnership projects for students and staff. A philological profile of the institution defines its character – international and intercultural. Cultural awareness, understanding, and respect for other cultures, inscribed in its mission, are a significant part of academic education. WSF

could mainly contribute to the games' construction in terms of developing soft skills.

All team members have considerable international experience in international cooperation and partnership projects. Participation in the *GameIT* project allowed each institution to raise its own educational potential and strengthen bonds with other partners, which opens a door to other forms of cooperation.

2. Meeting the expectations of the 21st-century students

Demand for new approaches in teaching and introduction of up-to-date didactic tools was confirmed by wide research conducted for the purpose of the project: surveys, interviews, desk research, academic, government, and EU publications. The expectations of students and academic staff were understudy at all four institutions. The results of the survey prove that 86% of students would be pleased to play cooperative games during classes, 50% of the respondents indicated that currently applied didactic tools are old-fashioned, no longer attractive, and not suited to expected learning outcomes. They lack interdisciplinary character, intercultural and cognitive implications and they do not stimulate creative thinking and expression. 80% of respondents indicated that introducing games would motivate them to greater activity during the classes.

Outcomes of the game industry research – interviews performed in January 2017 with the representatives of the *Polish Games Research Association*, *Board&Dice*, and *IBM Client Innovation Center* at Wrocław & Katowice show that board and role-playing games focused on business and strategy enjoy a spectacular revival. There is also a great demand for cooperative games developing 21st-century skills to be successfully used in humanities within university education or, for instance, by Human Research departments, recruiters, or career consultants.

For that reason, in the international partnership, there were created efficient and attractive didactic tools to improve critical and creative thinking problem solving, negotiation, communication, foreign language fluency, adaptability, or ability to work in a multicultural environment. The idea of the project corresponds to contemporary higher education sector priorities, i.e., enhancing the quality and relevance of students' knowledge and skills, with respect to the human capital development policy adopted by the EU. The relevance of student's education with reference to the demands of the labor market bears special importance in the process of integration and globalization. Current labor market analy-

sis reveals that present and prospective employees, to successfully find their place in the world of economy, should be equipped with key soft skills and comprehensive knowledge. Therefore, the role of academic institutions is not only to provide education in a narrow specialist discipline but to put it in a wider perspective giving it an interdisciplinary dimension. Students should be faced with challenging and stimulating tasks and be inspired to currently upgrade and extend their knowledge in various fields. It is essential that students acquire abilities of open-mindedness, flexibility, and adaptability to function in the local and international environment. Contemporary study programs should reflect needs and meet expectations of graduates and prospective employees. Bearing in mind their benefits, emphasis on practicality and usability of academic education cannot be questioned. This way knowledge and skills gained in the course of academic studies may be useful for future profession and other areas of life.

3. Goals and outcomes of the project

The leitmotif of the project was the philosophy of gamification, which recently has come up with new mainstream solutions in methodology of teaching. The academics participating in the project, aware of the increased attractiveness and an evident revival of traditional, non-computer games, decided to design a set of interactive games to be used in various fields of humanities and social studies. Those didactic tools primarily focus on communication (in English) and problem-solving rather than an economic aspect, which has been characteristics of commercial games. The fact that most of the board and role-playing games available on the market are business-strategy oriented makes them unsuitable to use in the fields of language studies, teacher education, journalism, art, or environmental studies. Modern games are known to develop soft skills, thus, many companies use them as a supportive tool for job interviews as well as in employee training schemes.

The principal goal of lecturers from Slovenia, Romania, Norway, and Poland was to create games based on common rules and methodology, however, role-playing games' scenarios consist of solving problems or puzzles specific to the culture of each partner's country. As all partner institutions are supposed to exchange games with one another, students will have to cope with cultural differences, varied thinking patterns, vocabulary, and behaviors. This will enable them to increase cultural and intercultural awareness, stimulate their creativity and adaptability. Authors of the games represent various areas of humanities: from modern

language studies to teacher training in mathematics, computer science, or arts. Therefore, cooperative games developed in the project go beyond traditionally defined disciplines and the intellectual output has a universal value. Developed methodological tools for academic use are meant to activate and stimulate the creativity of a student. Their innovativeness is viewed not as a single event but rather as a number of processes, a division of tasks, and planned events. Working in national and international teams colleagues from partner institutions had an opportunity to contribute with their expertise and experience in didactics to developing intercultural intellectual products.

Sharing ideas while performing international activities and participation of lecturers and students from four partner institutions (together, in mixed groups) obviously enabled them to learn about one another's culture and get integrated. Owing to fruitful international cooperation and genuine partnership project goals could be successfully achieved and intellectual outputs are as follows:

– Cooperative role-playing games development methodology
– four cooperative role-playing games
– e-book *GameIT: Gamestorming for Innovative Teaching*
– Video guide
– *GameIT* intensive study program
– Dissemination conference – summary of the project

3.1. Steps in the development of the board game *Planet Hexagon*

The work on a board game called *Planet Hexagon* (Intellectual Output 01) started in October 2017 and basically was accomplished in September 2019 with final testing in mixed international student groups during the *GameIT: International Intensive Study Program*, September 23–27, 2019, (https://www.wsf.edu.pl/139983.xml) organized by WSF in Wrocław. This competitive and co-operative game was developed as a tool to enhance the quality of academic classes at each of the four higher education institutions involved in the project. It can be used in a wide scope of humanities i.e., teacher education, modern languages, social studies, natural sciences, economic sciences, or pedagogy. By playing the game students will naturally practice and develop the so-called, 21st-century skills, such as communication and cooperation skills, creative and logical thinking, awareness and openness towards intercultural differences.

3.2. Presenting the *Planet Hexagon* as a civilization-building game

Planet Hexagon is a civilization-building game where the action takes place on a distant planet. It can be played in two different modes: with a small or a large group. Each mode has a basic and extended version with more advanced mechanics and complex plot. It involves drawing or flipping hexagonal tiles, using and borrowing special cards from other players or teams, cooperation, strategy building, and competition. Friendly to both game masters and players, the rules are relatively simple and can be learned quickly. A complete set of guidelines and tips are covered in the game instruction and the video guide (intellectual output 08), which provides filmed material from playing sessions with an explicit explanation of each stage of the game, its mechanics, and employed strategies.

Visualization and content of the board game Planet Hexagon
(design: K. Czarny)

As opposed to four role-playing games (Intellectual outputs 03-06), prepared individually by each partner, the board game is a result of the cooperative work of all international partners. Initial stages covered: appointing working teams out of 13 project staff members and assigning them tasks, establishing a common concept, defining key requirements with respect to the academic profile of each partner institution as well as

shared learning objectives. Discussion and consultancy on various aspects of the game, i.e., mechanics, proposed topic matter, plot, and scenarios were intensive and relatively lengthy. It took place both locally in national teams and on an international level.

Additionally, the lecturers involved in the construction of the board game were supported by external experts on game construction: specialist workshops and assistance throughout the process of a prototype designing. At the early stage was developed a sample model of the game covering: defined playing rules, a turn order of players, principles of moving on the board, and a scoring system for particular game outcomes with regards to randomness and influence on the final result. Project teams were working on a plot and a scenario. They suggested their designs and graphics of the game accessories (board, characters, pawns, tiles, etc.), defined the scope of the game playability, linearity and, finally, possibility to adapt alternative scenarios or strategies.

The project staff was working on the characters' descriptions, civilizations, and their *special skills*, They wondered how to identify and implement an intercultural component, define *hidden goals* of the teams playing the game and roles of players within each team. The game manual was mainly the contribution of the WSF team, who gathered all the materials from Partners and prepared the content.

4. Testing the board game with students – evaluation

The adopted methodology involved a leading role of one or two institutions and a consulting role of the whole consortium. That work scheme seemed to be fair and, eventually, proved to be effective. Once the prototype was completed, *Planet Hexagon* entered a more advanced phase. Testing and evaluation were conducted by each partner institution during academic classes from October 2018 till April 2019. Testing arrangements and organizational solutions at each institution were slightly different depending on the local organization of study and schedule.

However, there was a common testing methodology with commonly defined objectives, similar patterns and contents of evaluation surveys for students, lecturers, observers, and experts. Testing was divided into two stages, or testing periods, each of which was concluded with evaluation reports prepared by each partner. In the end, all gathered concluding remarks, and ideas for improvement were included in the final overall evaluation report.

The idea of testing was to confront the game as a newly developed product with players – its potential recipients. This was a way to detect

and grasp any game shortcomings with regards to playability, strategy and mechanics, level of student's involvement and interest, and reference to intended goals to be achieved by players. Among issues dealt with in the evaluation process, there was also an issue of graphic representation of particular game accessories. In that concern, game constructors strongly relied on the students' opinions. Many participants of testing claimed to have detached from computer games and have become dedicated board game enthusiasts. They declared to be familiar with different types of commercial board games for adults, which are popular in their countries: cooperative: *Ghost Stories*, *Horror w Arkham*, *The Dresden Files*; strategic: *Seven Wonder of the World*, *Game of Throne*, *Catan*, *Neuroshima Hex* and logical games: *Mr. Jack*, *Cluedo*, *Black Stories*. The authors of *Planet Hexagon* took advantage of students' experience and their creative suggestions were taken into consideration to improve the existing model.

In the meantime, the WSF graphic designer developed a draft version of each tile, special cards, a board and other elements on the basis of detailed descriptions prepared by each partner working team and the existing scenario. Inspiration was also drawn from young people's imagination – suggested images of civilizations, their assets, or the board itself. All game enthusiasts agree that a visual aspect of board games is vital.

The authors also fully realized its importance and its impact on players – their work was preceded by market research to recognize best-selling board games for adults and their distinctive features. Undeniably, they have to appeal to sensitivity and satisfy the demanding taste of young generation modern board games' players. For that reason, the constructors, aware of top quality visual standards of contemporary commercial games, created an impressive design of *Planet Hexagon*, which is artistic, eye-catching and stimulating by colors. It is complemented by players as attractive and appealing to the imagination.

Further modifications and improvements to the game, as intended, were introduced gradually within the process of testing and later, upon its completion. Any major doubts and arising problematic issues were currently discussed and solved by partners. According to the first evaluation reports received from partners, students and observers appreciated the board game in many concerns. They commented on the manual, "which was transparent and user-friendly, the rules were "not complicated", and they highlighted the idea of inserting in its illustrations, which helped to visualize the proceeding and understand the written content of the instructions.

In the students' views, the advantage of the game is that it can be comprehended and fully enjoyed not only by board game enthusiasts - those who deal with them on a regular basis. The suggested storyline with references to survival in space, woven into contemporary pop culture (*Star Wars*, *Star Trek*, *Martian*, *Mass Effect*, etc.) proved to be appealing and attractive for players. They claimed that solutions in the plot and game mechanics were logical, reasonable and they did not conflict with the common sense of players. For example, "to bring water home, you need a water hex and a factory to pump it". Another clever idea is the division into modes and levels of advancement. The increasing complexity of the game makes it more involving. Both observers and students stress that neither age nor high linguistic competence (proficiency in English and conversational skills) of players is required to take part in the game. On the whole, students enjoyed playing the *Planet Hexagon* during their classes, treated it as "a break from traditional, mundane didactic methods". Even most passive students in some groups got activated and showed interest.

Some critical notes referred to the game plot – its partial incoherence with the representations on a board, hexes, and other components. If the story is set in space, this image should prevail in all elements and stimulate players with suggestive visual effects. Most players indicated the need for creating wider descriptions of four different competing and, at the same time, cooperating civilizations, focusing on their characteristics and main assets. This way players could better identify with their team - civilization in the game. The added value of this arrangement was raising cultural and intercultural awareness.

The goal of other suggested modifications in strategy and mechanics was to improve communication and interaction. Due to the introduced changes, the game manual was several times revised and updated. Planet Hexagon, as the free, open access and downloadable teaching resource is made available to the worldwide public.

5. Constructing the role playing games – methodology

Cooperative role-playing games (RPG) development methodology was completed in October 2018. The role of a leader in this task had the team from the University of Ljubljana while other partners were consultants. Quality of the methodology and its theoretical and practical contents confirm the broad knowledge and experience of Slovenian colleagues in the application of games for didactic purposes. Apart from the theoretical

background, they provided the step-by-step instruction on RPG construction stages.

There was also a phase in which a comprehensive model of a cooperative role-playing game along with all the constituent elements of its mechanics was presented. Detailed guidelines and tips enabled the lecturers, even without prior experience in making games, a smooth transition from a conceptual to a final stage of the RPG construction.

The following task of each project team was to create their own RPG drawing upon their national characteristics: tradition, culture, and mentality, or breaking stereotypes and general perception of their country. The lecturers, representing different academic disciplines, were to adopt the existing game patterns for a new purpose - to develop a brand new game based on a common methodology, yet, with a different plot and setting. Principal advantages of RPGs was their cooperative character and, similarly to *Planet Hexagon*, raising 21st-century competences such as creative thinking or group communication.

The RPG methodology focuses on game mechanics and it provides guidelines on how to make it efficient, coherent, and adapted to the needs of a target group - university students pursuing particular academic out-comes. Slovenian RPG experts deal with and clarify the following issues: topic matter, a setting and a plot, mission type and a context of a game, level of difficulty, timing of a single game, number of players in a team, character profiles and a scope of creativity/responsibility of each character, scope of creativity and responsibility of a game master, accessories and multimedia aids, game manual and troubleshooting tips and tricks. Additionally, a vital complementary component of the methodology is a sample model of the role-playing games.

During the partner meeting held in Bled, May 2018, the Slovenian team had an opportunity to present their work in detail, analyze a case study and characterize the process of creating and implementing RPG games at the University of Ljubljana. The final version of the methodology, previously thoroughly reviewed by consulting, was shared within the partnership.

6. Characterizing the four RPGs created by national teams

Following the guidelines, all the four national teams started work on another intellectual output - cooperative role-playing games set in a cultural context of Romania, Norway, Slovenia, and Poland respectively. The scenario for each game was influenced by some local characteristics: culture, mentality, national stereotypes, traditions, historical and eco-

nomic facts, and figures. A distinctive feature of each partner's game and its added value is unique content reflecting specific academic experience and knowledge of each team member specializing in various areas of humanities.

All games share common learning goals - students learn about other cultures; practice and develop communication skills in English; raise intercultural awareness and tolerance for differences; get confronted with other perspectives and points of view, enhance their ability of observation and empathy; improve their collaboration, negotiation, and decision-making skills. Both a scenario and rules of each RPG are in English, which makes them accessible internationally, with the possibility of translation into other languages. Moreover, the games' formulas enable their transferability into various cultural backgrounds and academic disciplines. They are innovative and interactive tools to popularize and promote local cultures, and, simultaneously, help students develop a number of integrated, multidisciplinary skills.

The games are primarily dedicated to higher education students, however, there is no age limit for their players. Sufficient communication skills in English seem to be a major pre-requisite. Similarly to the developed board game, all four role-playing games are free, downloadable teaching resources, available on websites of each partner institution, and the Erasmus+ Project Results Platform.

StoryLand of Options (SLO Game) created by the Slovenian Team is in-spired by different geographical, economic, cultural, and historical characteristics of Slovenia. It consists of teamwork, i.e., interaction with other fellow players in the role of prominent figures from different country regions, who travel all over Slovenia and find missing parts of the map by fulfilling different missions. Full success depends on your imagination and ability to inspire others with your stories. Characters are placed on the incomplete map of Slovenia and their goal is to gather all pieces of the map by traveling from one missing place to another. During their journey, they face various challenges and struggle against adversity.

All Norwegians Are Rich and Equal by Norwegian Team is, actually, based on the idea of a quest to be rich and equal. The game setting is the newsroom of the biggest newspaper in the cold and mountainous country of Norway. The editor of this digital newspaper intends to publish material dealing with a stereotype of Norwegians, who are generally viewed as wealthy and equal. The journalists' task is to prepare a video-article, which portrays different persons representing various socio-cultural backgrounds in Norway. Having interviewed them the players have grounds to come to a conclusion whether the idea of equal and rich Nor-

wegians is a myth or reality. The game gives the players a broader perspective of life; teaches empathy; critical and reflective thinking on values and tolerance and it inspires players to create unique stories.

Cultural Labyrinth by Romanian Team draws upon a popular Romanian fairy tale*, Youth without Age and Life without Death (Rom.: Tinereţe fără bătrâneţe şi viaţă fără de moarte),* by Petre Ispirescu 1, in which a much wanted and long-expected prince – a hero sets on a journey to find a symbol of knowledge and wisdom. This quest involves going through the *Cultural Labyrinth,* which is a winding maze with 6 gates. Each gate resembles a traditional Romanian House, typical for Romanian cultural and historical regions of Moldavia, Bucovina, Maramureş, Transylvania, Oltenia, and Banat. To find the way out of the Labyrinth, the hero must successfully go through all the gates by answering questions associated with each House. Participation in this challenging pursuit motivates players to explore Romanian culture and history.

The players of the Polish RPG - *Polonia Misteriosa* enter the imaginary world of Polish legends and fairy tales. The aim of the game is both exploring and animating stories deeply rooted in Polish history and culture. The legends provide structure for the game while the players are involved in creating their own stories. A group of legendary playing characters travels throughout Poland in order to find the mysterious and elusive Heart of Europe, which can be anywhere in the country. Each character has a different motivation and an individual personal goal, however, they team up in order to find the best way. During their quest, to be rewarded with success, players have to face many challenges, meet strange creatures, overcome difficulties, solve some riddles, and perform tasks.

7. The Intensive Study Program in Wrocław, September 2019

The RPG construction phase was followed by testing and evaluation. Primary testing took place during the *Intensive Study Program* (ISP) organized by the host in the fourth week of September last year. The international meeting of students and lecturers from all partner institutions gave an excellent opportunity to summarize the achievements of two years of project work together with students – its target group.

ISP gathered 52 participants: 10 delegated students and 3 lecturers from each institution: WSF – representatives of Modern Languages Studies; HVL – Faculty of Teacher Education and Sport, UL – Faculty of Education and the Faculty of Arts, UB – students and lecturers from Pre-

and In-Service Teacher Training Department. Most participants had no previous experience with the constructed games, which guaranteed objectivity of their assessment.

All the games created by the consortium were tested in mixed international groups of students in several parallel playing sessions. Game masters – lecturers from different countries – for each group and game sessions – were chosen randomly and they conducted game sessions inter-changeably. Apart from regular ISP participants, workshops were attended by guests: academics, students, game enthusiasts, representatives of job agencies, and recruitment specialists. Every player and observer was requested to express opinions in an evaluation survey. This approach ensured objectivity in the evaluation of each game's playability, adequacy of content – focused on expected learning outcomes, mechanics and flow of a game, intercultural and interdisciplinary character, etc. Furthermore, each game's manual, intended to be user-friendly, underwent verification. Both presented scenarios and rules had to be clear, logically arranged, and relatively simple. The role of a game master was also re-defined.

Participants confirm that the Wrocław meeting has been for them a unique experience. Students from Norway, Slovenia, Romania, and Poland, representing different study areas and programs as well as cultural backgrounds, very much enjoyed the stimulating, international spirit of workshops. National evenings, prepared by each national team and dedicated to their country helped them integrate and get familiar with one another's culture. All participants were very enthusiastic and willingly joined the *GameIT: International Intensive Study Program* activities. Conclusions from panel discussions of academic teachers and constructive feedback from students and observers constituted a reliable evaluation material to assess the quality and identify areas for improvements in all created games – a board game *Planet Hexagon* and national culture-oriented role-playing games. All project teams exchanged views on the developed innovative didactic tools and suggested ways of incorporating them into their university study programs.

Participants of the Intensive Study Program, Wroclaw, 2019 (photo: A. Zasłona)

The Romanian Evening in the Intensive Study Program (photo: A. Zasłona)

Testing the Planet Hexagon in international student teams (photo: A. Zasłona)

Testing the Slovenian role-playing game during the students' meeting (photo: A. Zasłona)

8. Appreciating the impact of the project

Participation in the project has been beneficial for the engaged members of the consortium. The target group - students gained new transferable skills that may boost their employability. Owing to participation in some activities they had a unique intercultural experience; developed cultural awareness and open-mindedness, got familiar with unconventional learner-activating teaching methods, raised linguistic competences and enhanced self-confidence. All involved academic teachers and teams, working locally and in international cooperation, acquired knowledge on new methodological solutions in specific fields of academic education, and developed competences of analytical, innovative and critical thinking. Through international cooperation they exchanged their know-how and good practices in modern didactics.

Innovative cooperation games contribute to the quality of the learning and teaching process and, hopefully, will become popular and effective teaching aids also outside of universities. Unlimited transfer of knowledge and promotion of the intellectual output among education institutions in Europe are substantial assets of the project. Its undeniable value is successful communication between working teams – full of mutual understanding and respect. Certainly, the bonds of partnership and friendships are important stepping stones on the pathway that can lead to all sorts of future cooperation initiatives.

9. Announcing the future conference in Wrocław, May 2020

The conference *GameIT: Gamestorming for Innovative Teaching,* to be held in Wroclaw, May 15th, 2020, is going to summarize the project activities and present its outcomes. The event program will cover the following topics:

– the methodology for developing educational role-playing games, four role-playing games and their scenarios, board game issues and methodological guidelines regarding the use of games during academic classes,
– the experience gained during the project, including the performed games testing and evaluation,
– examples of game implementation on academic classes and good practices related to developing games in international cooperation.

The conference is going to deal with the idea of gamification in the academic context, putting it into a wider perspective. Participants will disseminate and promote board and role-playing games as attractive and effective didactic tools in a vast array of humanities. The idea is to share developed games with other higher education institutions, schools of secondary education, corporations, associations or interested individuals. All project results will be available in a digital form: the methodology, the e-book, the video guide and games: the manual and accessories (e.g. a board, card designs).

STRESZCZENIE

GrajwTO: Bombardowanie grą na potrzeby innowacyjnego uczenia – geneza, misja i szanse projektu edukacyjnego

Projekt *GrajwTO: Bombardowanie grą na potrzeby innowacyjnego uczenia* (*GameIT: Gamestorming for Innovative Teaching*) realizowany był od września 2017 do sierpnia 2020 roku w ramach programu Erasmus + Partnerstwo Strategiczne (*Program Erasmus+ Strategic Partnership*) przez konsorcjum czterech europejskich uczelni: Wyższej Szkoły Filologicznej we Wrocławiu (WSF); Uniwersytetu Bacău im. Vasile Alecsandri (UB) z Rumunii, Uniwersytetu Ljubljany (UL), ze Słowenii oraz Uniwersytetu Zachodniej Norwegii (HVL).

Głównym celem projektu było podniesienie jakości metod i narzędzi dydaktycznych w obszarze humanistyki w czterech partnerskich instytucjach edukacyjnych. Stało się to możliwe poprzez stworzenie i wykorzystanie w dydaktyce innowacyjnych kooperacyjnych gier, rozwijających kompetencje niezbędne dla przyszłych nauczycieli języka angielskiego jako języka pośredniczącego w komunikacji globalnej między społecznościami, które często zmieniają swoje miejsca studiów i pracy w kraju i za granicą zgodnie z polityką powszechnej mobilności akademickiej.

Wielodyscyplinarny i złożony charakter działań projektowych wymagał współpracy i zaangażowania wszystkich partnerów międzynarodowych reprezentujących różne specjalności i specjalizacje. Każdy zespół „narodowy" miał cenny wkład w osiąganie rezultatów intelektualnych działając zarówno samodzielnie, jak i w międzynarodowych grupach roboczych.

Istotą współpracy było dzielenie się doświadczeniami, wiedzą i opiniami na temat tworzenia i wykorzystania gier w dydaktyce przez specjalistów w obszarze kształcenia nauczycieli, pedagogiki, metodyki nauczania różnych zagadnień w dziedzinie aktywizacyjnych, alternatywnych form edukacji, zastosowania technologii informacyjnych i komunikacyjnych w edukacji akademickiej, innowacyjnych podejść do metodyki nauczania i uczenia się, a także idei gamifikacji i uczenia z wykorzystaniem gier.

Wszyscy członkowie zespołu mają duże międzynarodowe doświadczenie we współpracy międzynarodowej i projektach partnerskich.

Udział w projekcie *GameIT* pozwolił każdej instytucji wzmocnić potencjał edukacyjny i poszerzyć istniejącą już współpracę z partnerami o nowe obszary naukowe i praktyczne.

Identyfikacja kontaktów z rodzimą kulturą oraz zrozumienie i szacunek dla odmiennych kultur to niezwykle istotne idee, wpisane w misję wszystkich członków akademickiego konsorcjum. Charakter opracowanych nowych narzędzi dydaktycznych – interkulturowy i uniwersalny, jest ich odzwierciedleniem.

Zapotrzebowanie na nowe podejście w dydaktyce akademickiej potwierdziły wyniki badań przeprowadzone na potrzeby projektu: ankiety, wywiady, badania źródłowe, publikacje naukowe, publikacje rządowe i unijne. Wynika z nich wyraźnie, że kształcenie powinno być zdecydowanie bardziej zorientowane na podnoszenie tzw. kompetencji miękkich, które pomagają w kreatywnym myśleniu, tj. komunikacji i adaptacji – także w środowisku międzynarodowym. Takie umiejętności stanowią niezaprzeczalny atut absolwentów różnych kierunków studiów humanistycznych wkraczających na obecny rynek pracy.

Autorzy gier reprezentują różne dziedziny nauki, stąd opracowane w ramach projektu narzędzia wykraczają poza tradycyjnie ramy dyscyplin. Stanowi to ich unikalną wartość – możliwość uniwersalnego zastosowania, nie tylko w kontekście dydaktyki uniwersyteckiej, lecz np. w doradztwie zawodowym czy w procesach rekrutacyjnych dotyczących różnych gałęzi gospodarki.

Testy przeprowadzone wśród studentów i dydaktyków z Norwegii, Rumunii, Słowenii i Polski potwierdzają, że opracowane w projekcie gry kooperacyjne mają szansę stać się atrakcyjnym narzędziem i wzbogacić warsztat uniwersyteckich dydaktyków z różnych dziedzin. Poprzez zabawę i wspólne działanie uczestnicy gier rozwijają tzw. kompetencje XXI wieku, tj. umiejętności komunikacji i współpracy, negocjacji, kreatywnego i logicznego myślenia. Dzięki zawartych w nich treściom poznawczym, bardziej identyfikują się z własną kulturą jednocześnie ucząc się otwartości na obyczajową odmienność innych krajów.

Udział w międzynarodowym projekcie umożliwił wymianę wiedzy i doświadczeń w nowoczesnej dydaktyce. Wszyscy zaangażowani nauczyciele akademiccy wraz ze studentami, pracujący lokalnie i we współpracy międzynarodowej, zdobyli wiedzę na temat alternatywnych, atrakcyjnych dla współczesnego odbiorcy, lecz jednocześnie, efektywnych metod edukacyjnych.

Twórcy gier, opierając się na koncepcji tradycyjnych gier fabularnych i planszowych, nadają im odmienny, edukacyjny charakter – konstruują fabułę, która gwarantuje spełnienie określonych celów dydaktycznych

i skuteczną mechanikę, nadającą grom dynamikę. Intencją autorów gier było stworzenie atrakcyjnych narzędzi dydaktycznych na miarę doby „ponowoczesności", zdominowanej przez multimodalną technologię informacyjną. Opinie zebrane w trakcie testów świadczą o tym, że wspólne spotkania przy „planszówce" mogą przynieść nieocenione korzyści edukacyjne, zarówno dla pokolenia nauczycieli i studentów, ukształtowanych poprzez wszechobecne media publiczne i w znacznej mierze uzależnionych od wiedzy masowej dostępnej w Internecie.

Anna Zasłona, koordynatorka projektu *Wrocław, 22 kwietnia 2020*
Wyższa Szkoła Filologiczna we Wrocławiu

Anna Zasłona, MA – Coordinator of the “GameIT” Project

Graduated in English Studies and has 18 years of teaching experience; since 2009 the Head of International Cooperation and EU Project Department at Philological School of Higher Education in Wroclaw (WSF) and the Institutional Erasmus+ coordinator; Her major responsibilities and achievements cover: expanding the network of Erasmus+ partnerships; si-gn-ing 29 new bilateral agreements, ra-ising the level of international mobilities and the amount of funding; enhancing the quality of international standards in education at WSF; recognition and accreditation of UE: ECTS Label (2012) and DS Label (2013); organization of 12 international conferences; participation in a number of national and international projects; 2011–2018 – coordinator of the regional Lower Sale-sian Language Contests (English, German and French) for lower secondary school students (app. 12 000 from 400 schools participants each year); 2014–2016 – coordinator of the Norway Grants project: “Active in lan-guages – interactive in teaching. Modern ICT-based methods of teaching languages”; 2018–2020 – coordinator of the Erasmus+, strategic partner-ship project: “GameIT: Gamestorming for Innovative Teaching”, in the partnership with Vasile Alecsandri University of Bacău, Romania; Western Norway University of Applied Sciences, Norway; and University of Ljubljana, Slovenia.

The project was carried out under the guidance of the Philological School of Higher Education in Wrocław in the period September 2017 till August 2020. Its main goal was to improve the quality of didactic methods and tools for humanities at the four partner higher-education institutions by designing and implementing innovative cooperative games, developing competences indispensable in the 21st century labour market. The multi-disciplinary character and complexity of the project required engagement of all international partners. Each national team involved in the project great-ly contributed to final intellectual outputs – they willingly shared their ex-pertise within the area of teacher-training pedagogy, methodology of teach-ing in specialized fields, activating forms of education, information and communication technologies applied in university education, innovative approaches in the methodology of teaching and learning, as well as, eventu-ally, the idea of gamification and game-based learning

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