Simulation games as educational texts and mediational tools for intercultural learning

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Abstract

This article reports on the results of research carried out with university students using simulation games as educational resources. The aim of the study was to analyse the role of simulation games as mediational tools in the creation of playful, creativity-based educational interaction and the development of intercultural competence. Our approach is grounded in Moeglin's (2008) discussion of the role of mediatisation in the process of learning, Huizinga's (1971) theory of play (as it relates to learning), and Vygotsky's (1978) idea of a social constructivist pedagogy. The results suggest that simulation games exhibit the potential to develop important elements of intercultural competence, by helping to: turn learning into play, develop decision-making and other intercultural skills (as opposed to simply providing knowledge), and maximise students' potential learning outcomes. In addition, simulation games provide a multimodal platform, encouraging the development of students' ability to create, read and interpret multimodal texts. It is proposed that simulation games can perform an important role as auxiliary tools to be used alongside traditional modes of education.

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Keywords: simulation games, mediatisation, intercultural competence, multimodal texts

Introduction

Simulation games are playing an increasing role as an educational resource with the development of interactive experiential learning. Simulation games imitate real-life situations and allow learners to feel as though they are participating in real-life situations, experiencing real-life stress and problems, and understanding the complexity and implications of reality. Practical testing and scientific analysis are required to see how educational innovations: change the process of learning and thereby educational institutions; impact interaction between participants in the educational process, and their roles; influence the development of new competence as well as differences from other, traditional learning strategies and traditional resources and media (primarily, textbooks).

Simulation games not only bring changes to educational interaction, but are also a type of educational media. Moeglin (2008) has noted that mediatisation is an important part of the learning process and is the basis of the institutionalisation of education institutions. Textbooks and traditional texts currently used in combination with current teaching methods have shaped the modern educational institutions of industrial society. Textbooks started the so-called industrial pedagogy. School has become a factory, where the industrialisation of teaching has taken place as tools of mass educational administration and mechanised teaching, based on the repetition and the standardisation of exercises, were created. At the same time, according to Moeglin (2008), traditional educational media – textbooks – started the spread of a universalistic ideology, became the tool for the normalisation of social conduct, and helped implement linguistic, cultural and political standardisation, ideological control and legitimation of knowledge. The factory model practice of the educational process implemented through textbooks has established a clear-cut division and opposition between "school work", i.e. serious and rigorous activity, and play. Work with rigid and non-interactive textbooks and traditional texts, reading and cramming and reporting to a teacher, develop corresponding intellectual skills. The above-mentioned notion of the relationship between mediatisation, institutionalisation and mode of production raises questions about how to choose the right educational techniques, educational tools and media to satisfy the modern mode of production and consumption and form a new institutional education experience. Post-industrial society and the emerging type of economy – creative industries – implies new needs and skills from its citizens: to be able to create, transfer and buy aesthetic pleasure, and amusement.

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Simulation games as new techniques and media of learning/teaching take on a new meaning in overcoming the opposition between work and play and in learning through play. It is important to consider how educational institutions are changing and what happens to the standardisation of education if texts and educational tools (e.g. games) are used to foster play as a mode of activity and thinking.

In support of Moeglin's idea about the role of mediatisation in the process of learning, the idea of a social constructivist pedagogy developed by Vygotsky (1978) about cultural and semiotic mediation implemented through speech and texts in social interaction as artefacts and mediational means is discussed. Social interaction is mediated by cultural signs and tools; artefacts. According to this notion, the process of learning/teaching should be analysed as a unity of social interaction, social organisation of instruction, created meanings and mediational means.

The aim of this article is to analyse the role of simulation games as mediational tools in the creation of playful, creativity-based educational interaction and the development of intercultural competence. We studied the potential of simulation games as educational resources in developing intercultural competence amongst university students by testing three simulation games: "An Alien Among Us" (Powers 1999), "Ecotonos" (Saphiere 2008) and "Randömia Balloon Factory" (Grove & Hallowell 2001).

The role of intercultural simulation games in developing intercultural competence

Development of intercultural competence is understood to be a continuing process that involves such strategies as experiential learning, problem-based learning, collaborative learning, reflective learning and cognitive learning (Dewey 1938, Kolb 1984, Knowles 1975, Boud & Miller 1996, O'Donnell, Hmelo -Silver & Erkens 2005, Capon & Kuhn 2004, Knowlton & Sharp 2003, Johnson & Johnson 1990). All these learning strategies are aimed at the development of knowledge, skills and attitudes, and the application of prior knowledge in the process of education by creating real or simulated intercultural situations. Based on the principles and ideas of a constructivist learning paradigm (Piaget 1973, Birenbaum 2003, Proulx 2006, Rogoff 1990, Lave & Wenger 1991), we created a model of development of intercultural competence (see Figure 1). According to this model, the development of intercultural competence is a holistic concept and requires the integration and involvement of the environment (multicultural society), then main strategies and methods of development of the intercultural competence are singled out.
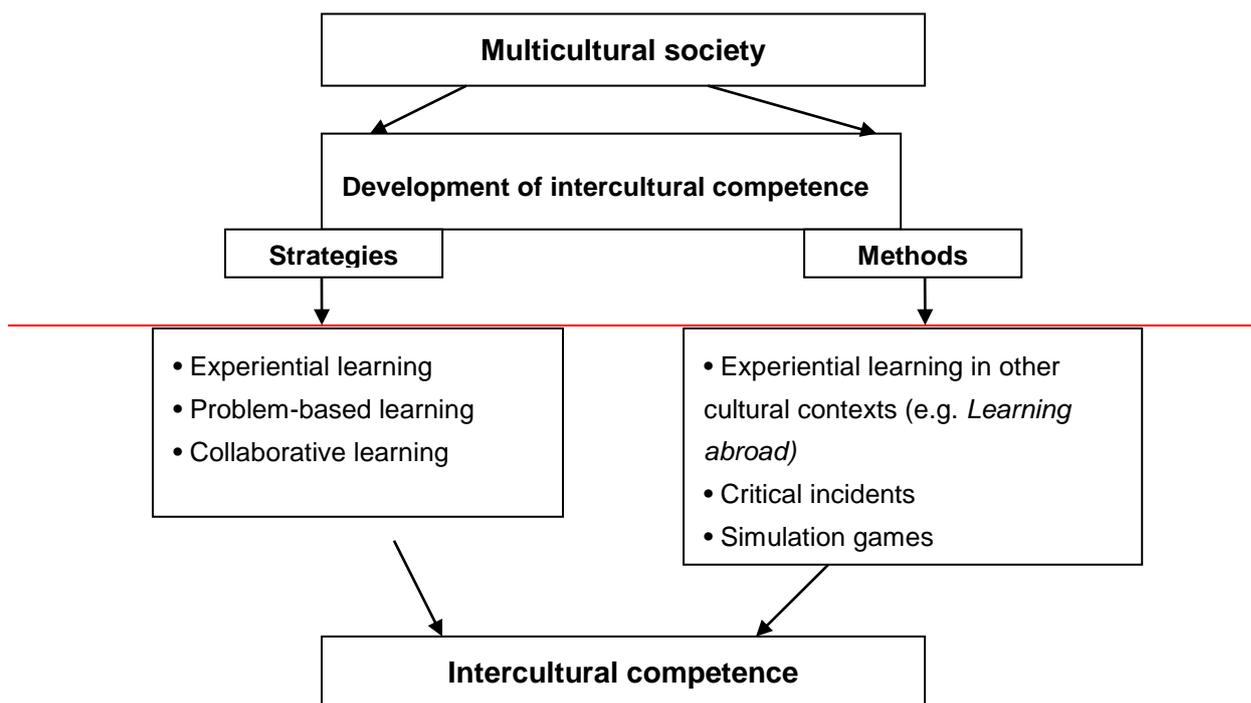
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                    ┌─────────────────────────────┐
                    │     Multicultural society    │
                    └─────────────────────────────┘

            ┌──────────────────────────────────────────┐
            │  Development of intercultural competence  │
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        ┌──────────────┐                    ┌──────────────┐
        │  Strategies  │                    │   Methods    │
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Strategies	Methods
• Experiential learning • Problem-based learning • Collaborative learning	• Experiential learning in other cultural contexts (e.g. *Learning abroad)* • Critical incidents • Simulation games

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                    ┌─────────────────────────────┐
                    │    Intercultural competence  │
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Figure 1. Model of development of intercultural competence

When seeking to develop and assess a person's level of cultural awareness, in real and simulated cross-cultural encounters, the importance of the learner's metacognitive strategies in the process of competence development is emphasised. In particular, emphasis is placed on reflexive techniques (reflexive journals, personal journals, essays, various reflexive texts, interviews, etc.) and methods of collecting and presenting competence proofs (*portfolio*) (Stiggins 1994, Brown 2002, Zubizarreta 2004 and 2009, Barrett 2003, Paulson & Paulson 1994). Active experiential learning is deemed to be an important method for developing students' skills (Kolb 1984), it encourages students to stop being passive consumers and to become active players, developing their skills, values, and attitudes. Students study their own attitudes and values during active learning. The combination of experiential learning and methods encouraging reflection enable learners to expand their knowledge, abilities, disclose manifestation of emotions and attitudes, observe and assess them, and consider levels of competencies and shortcomings.

Intercultural simulation games provide conditions for learners to engage with metacognitive strategies. Games that imitate and simulate situations from the intercultural environment are now widely used (Hofstede et al. 2010, Fowler & Pusch 2010, Wiggins 2012). In simulation games, imaginary environments with specific rules, fictional scenarios and roles are created. According to Hofstede, de Caluwé and Peters (2010), there is a "confluence of systemic knowledge, practice, emotional involvement, and social embeddedness that creates the

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potential to achieve results that no other methods can match" (824). The pre-conditions for learning concentrate on social and emotional aspects. The main aims of these simulation games are to help learners learn how to act in various intercultural contexts, recognise the identities of various cultures and the specifics of intercultural interaction, and experience cultural diversity. Simulations of intercultural interaction include how people deal with time and the use of space, verbal and nonverbal communication, and values. Simulation games allow us to understand and experience the benefits and difficulties which intercultural communication brings. As Fowler and Pusch (2010) note, elements in intercultural simulation games tend to focus on obstacles for achieving goals such as constraints on time, information, and language. That is why misunderstandings, mismatching of values and behaviour, negative feelings of uncertainty and disappointment can be a natural part of game playing, since these issues reflect the very nature of the interaction of cultures.

By playing the game, learners have specific experiences of imagined cultures and experience possible cultural clashes. Simulation games use synthetic cultures (Hofstede & Pedersen 1999, Wiggins 2012) which are created in simulations and may represent characteristics of real-world national cultures. As well as the element of play, the element of seriousness and work is retained by seeking to learn something on a certain topic. Learning during simulation games is a complex process that includes not only writing scenarios and appropriate preparation; but also involves a process of game performance that becomes an important condition for learning. Wiggins (2012) points out that "an advantage of synthetic cultures is the inherent lack of stereotypes and prejudices associated with an individual's perception of national cultures" (554). Intercultural simulation games create multiple opportunities: to learn about oneself and one's culture, to learn about others, to try to solve problems raised in the group, to find common solutions after hearing all team members' opinions, to rediscover otherness and evaluate the concept of diversity. The main link connecting different simulation games is teamwork, activities in separate small groups representing different cultures, organisations, and groups/unions of people sharing common interests. Simulation games involve knowledge (about one's own/other cultures, geography, modes of behaviour), activity, emotions and social factors. Participants and co-creators of a game are, in a broader sense, game designers, facilitators, and players. The game itself is a set of rules, scenarios, texts and various tools.

According to Hofstede et al. (2010), the successful results of a game are not a given; winning does not guarantee a learning outcome. The outcome of the game is unpredictable and there is a risk of not achieving the objective of the game, in which case the game fails. Failure may occur for several reasons:

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inappropriate scenario and game rules, the players' unpredicted emotional expression, the players' cultural background may determine unpredicted results, inadequate facilitation, failed debriefing, etc. However, it should be acknowledged that the process of any simulation game in action is unique – when the same game is played by different groups, the result will be different because players' experiences, knowledge, attitudes, and codes of behaviour are different.

In terms of learning, one of the most important phases in simulation games is debriefing. It is a reflective activity which is dedicated to the sharing of experiences of game playing. As Crookall (2010) states, the learning comes from the debriefing, not from the game: "Debriefing is the processing of the game experience to turn it into learning (to paraphrase Dave Kolb)" (907). By means of debriefing it is possible to convert negative emotions, feeling and experiences of intercultural communication into positive and meaningful results of learning.

Play as a mode of activity and learning

According to Huizinga (Хейзинга 1992) who published his book "Homo Ludens" in 1938, play is the essential element of culture, one of "the great archetypal activities of human society". Huizinga discusses the notion of playing man, *homo ludens*, as opposed to the idea of producing man, *homo faber*, which is related to duty and rigorous work, seriousness, control over nature. Having performed an historic analysis of elements of play in a systematic way, Huizinga aims to prove that numerous forms of culture – poetry, art, performance, dance, religious cults, speech, music, sports – are based on the logic of play, just as they would have been in the past. Play is also present in the roots of such serious activities as war, philosophy, politics, and courts of law. Huizinga provides universal, recurring principles and elements of play.

From the standpoint of form, we can define play, in short, as a free activity, experienced as "make-believe" and situated outside of everyday life, but nevertheless capable of totally absorbing the player; an activity entirely lacking in material interest and in utility. It transpires in an explicitly circumscribed time and space, is carried out in an orderly fashion according to given rules, and gives rise to group relationships which often surround themselves with mystery or emphasise through disguises their difference from the ordinary world (Хейзинга 1992, 31-32, translated into English by Ehrmann et al. 1968, 34).

Play is something unserious, an activity that opposes work or occupation, which requires hard effort. Play is usually associated with freedom, activity based on free will that cannot be imposed. Play is mostly associated with leisure time for

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relaxation, or time out of work. From the perspective of the development of civilisation, if work is done out of necessity, then play is excess, something that does not have material necessity. Another feature mentioned by Huizinga that characterises play is fictiveness. It is accompanied by a specific awareness of a second reality or of straightforward unreality in relation to everyday life. Play activity seems to happen in real life, but is in fact not real. Play deals with uncertainty: its course cannot be determined nor its outcome reached in advance, a certain latitude for innovation being left necessarily to the initiative of the player.

The most important cultural function of play is that it happens because of communication and because of being together. Play happens in a certain space and time, has its own physical and symbolic space, with its own internal order. Rules create the world of play. Play possesses a certain course; rules of the play create the story – stress, equilibrium, balancing, contrast, variance, rising and falling action. Stress is the most important element that creates suspense and instability, chance and opportunity. Play ends with overcoming the stress and resulting in relief and relaxation. Moreover, play implies winning, placing bets, a prize, an award. Therefore, competition and struggle for the first place must be present in play.

Evidently, elements of play are implemented through simulation games. However, simulation games are primarily designed with a pedagogical outcome in mind. This brings us to the concept of learning through play, which combines elements of play and seriousness.

Huizinga's theory of playing man notes the importance of play in any activity (including learning). Vygotsky's theory of social constructivism gives us an important theoretical basis that helps to conceptualise the game as a learning mediator. Vygotsky's theory was elaborated with a specific focus on children's cognitive development, however, some of his concepts can be meaningfully applied to the situation under study. Vygotsky (1987) posited that, during a pedagogical process, a child enters "a zone of proximal development" which is the "difference between the child's actual level of development and the level of performance that he achieves in collaboration with the adult" (209). The zone of proximal development is the level of potential which a child can reach performing a task through cultural mediation and collaboration with an adult or with more competent and capable peers. Vygotsky emphasises not only cognitive, but also cultural development, habits and forms of cultural behaviour, and cultural methods of reasoning. The child integrates mental processes that are undergone with the assistance of more capable and competent members of the culture (adults and peers) through internalisation of culturally-constructed

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mediational means. If play forms the basis of the cultural activity as Huizinga has explained, then, according to Vygotsky, it could be argued that play is an activity that transfers valuable knowledge accumulated by society. A game (as a concrete form of play) could be seen as a mediator and artefact, as a cultural and educational tool to be used in the zone of proximal development. It is a tool that could be used to mediate social environments and to internalise knowledge and develop skills.

Since the zone of proximal development described by Vygotsky is used as a model of children's cognitive development, there is a question as to whether the same teleological concept of progress of development could be applied to the development of social competencies. The course of child development described by Vygotsky certainly cannot be applied as such to adult learning. However, certain developmental models in education of intercultural competence, have identified more progressive stages in the process of learning and personal development, which is a life-long process.

Bennett's (1993) Developmental Model of Intercultural Sensitivity (DMIS) and Fennes and Hapgood's (1997) developmental model of intercultural competence, for example, are worth noting as they identify an ethnocentric stage as one of the first stages of human socialisation. Further development implies a transition to ethno-relative stages that involve adaptation or integration and the formation of intercultural competence. Transition from one stage to another is the result of informal and formal education. Hence, Vygotsky's idea about the possible educative role of social interaction is basically applicable here as well. As in the case of this study simulation games have been used in adult learning, this paper will consider game facilitators and teachers as those who are not necessarily on a higher level in terms of possessing higher cognitive abilities or more developed emotions, or a higher level of skills in social interactions. Nevertheless, these facilitators/teachers aim to encourage the development of players' social skills and moral development, and to lead students towards another level of development of social competence, because they understand the concept of development of intercultural competence and possess certain didactic skills, knowledge and information about logic and the principles of organisation of the game to be played, as well as complete information about the game (unlike the players). Tudge (1992) notes that if development is considered to be a teleological process with a certain pre-defined logic of maturity and certain embryonic forms of future development, socialisation can be interpreted as involvement in the dominant culture, pre-existing social world, embodied in the adult or more competent peer. If a teacher of intercultural learning recognises the trajectory of development of intercultural competence from ethnocentric to ethno-relative stages he or she

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can choose proper educational tools (e.g. simulation games) to help students to move to higher stages of development. At the same time, creation of the zone of proximal development by involving more knowledgeable peers and using mediational tools would mean a transfer of values of tolerance and respect to otherness which are inherent in democratic society.

It is equally important to define how Vygotsky's theory can be applied in the context of peer collaboration, which also plays a strong role in simulation games. Authors such as Tudge (1992), referring to Vygotsky's theory, emphasise the role of collaboration between peers, peer work and interaction in groups in specific problem-based environments. In the case of this study, simulation games as mediational tools provide collaborative, problem-based interaction which is created by the authors of the game, the game as a set of rules, and the roles and activities of facilitators (teachers) and players (students).

Text in simulation games: Overcoming the hierarchy of signs and establishing multimodality

The role of texts in simulation games can be better understood through a discussion of traditional texts used in the learning process and the emergence of new text forms. Texts that incorporate several modes of communication and the use of various semiotic channels have emerged as a result of new technologies. These multimodal texts combine oral, written and visual textual content. Simulation games make use of this multimodal approach to text usage. Texts in simulation games involve written language (players are given detailed written explanations and descriptions, and become familiar with the game rules by reading text), oral language (usually, a facilitator's explanations and information orally-communicated during the game), non-verbal language (facial expressions, gestures, colours, gaze, body movements, etc.) and visual texts (images, actions), artefacts, music, etc. When image, video, sound, voice, and graphics are used simultaneously, polysemic possibilities emerge through the relation of signs to each other in addition to their relations to the signified.

In the context of Kress' vision of an oral/gestural/visual text, Peacock and Cleghorn (2008) discuss the application of "alternative text" in the teaching and learning process, when the concept of text is expanded and the view of the landscape may also become the text in the lesson that is held in an open-air classroom.

Authors (e.g. Cushman 2011) who discuss the multimodality of texts have distinguished a hierarchy of signs, where the letter and print text are privileged over the image, that has traditionally formed in media and intellectual activity.

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Multimodality is established when a certain discipline of scholarship and teaching/learning has been influenced by cultural studies (for example, English studies), when the study of artefacts has begun (for example film, art, photography and material objects). The emergence of multimodality in intercultural education and intercultural communication is related to the introduction of artefacts that reflect cultural practices and cultural identity into the study. However, the dominance of monomodality prevails in teaching and learning and intellectual activity.

Method and participants

For the analysis of content and scenarios of simulation games we chose three games: Ecotonos, An Alien Among Us and Randömia Balloon Factory. A study on the use of the abovementioned simulations games in an intercultural classroom was carried out with the participation of local and international students at two universities in Lithuania (Vytautas Magnus University and Šiauliai University) and a university in the Netherlands (The Hague University). Participants in the research were Erasmus exchange program students in 2012 and 2013 at the above-mentioned universities. A total of 72 students (four groups, with 12 to 25 persons each) originating from Lithuanian and foreign universities took part in the games. The age of the participants varied from 21 to 25 years. Students were enrolled in intercultural communication courses in BA and MA study programmes. At least two of the three games were played with each student group once. Each game session lasted from two to three hours.

Following each game, we conducted focus group discussions (during game debriefings) with the students and asked them a list of questions. Some questions reflected content of concrete games - Ecotonos, An Alien Among Us or Randömia Balloon Factory. A common structure was followed for the debriefing sessions for all three games. We asked students to describe their experiences of playing the games on three dimensions of analysis: affective (emotions, feelings), cognitive (ideas, opinions, awareness) and application of experiences gained in fictional cultures to real cultural communication. The questions were focused to reveal participants' feelings and emotions, difficulties or frustrations, strategies of problem-solving, recognition and overcoming their cultural stereotypes and prejudices, changes in understanding of otherness, and different communication styles.

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Results: Challenges of using multimodal texts in the simulation game "Randömia Balloon Factory"

The necessity of developing the ability to use, recognise and create multimodal texts when a hierarchy of signs and modes of expression still exists has been observed in the simulation game of "Randömia Balloon Factory" (Grove & Hallowell 2001). According to its scenario, students are divided into two cultural groups – representatives of the country Richland who advocate the values of Western culture and representatives of country Randömia, the values of which are characteristic of a traditional hierarchical culture. In the scenario, the action takes place in a balloon factory in Randömia. Richland has invested in the factory and seeks to upgrade production technologies, and by direct communication tries to identify reasons for their failure with the factory. Players of the game are asked to reveal why the Richlandians failed to operate successfully in the local culture of Randömians. The game simulates the clash and diversity between these two different cultures. Richlandian (Western) culture is characterised by such features as individualism, democracy, small power distance, directness, a low-context culture, and assertive leadership style. Randömia's cultural values, on the other hand, imply hierarchy and a large power distance, orientation towards harmony, indirectness, a high-context culture, supportive leadership style, and specific non-verbal behaviour (i.e. avoidance of eye contact).

Players of "Randömia Balloon Factory" were given the opportunity to understand cultural differences between components of verbal, non-verbal and para-verbal communication. Verbal communication included: information expressed in words, either vocal (spoken) or non-vocal (written) language. Non-verbal communication included: body language, i.e. communication without words (gestures, distance between speakers, posture, physical contact, facial expressions, and gaze). Para-verbal communication included: speaking pace, intonation, pauses, tone, and pitch. These components of communication are culturally determined and usually cause misunderstandings in intercultural communication.

During the game, workers at the balloon factory, i.e. the group of students representing Randömia's culture, were trained to adopt and play rather complex cultural patterns of behaviour related to the concept of social hierarchy and style of leadership. The role of this student group in the game was to adopt a/the new cultural identity and try to present its distinctness to another group of students via particular non-verbal behaviour. Following the explanations and instructions given to students from written texts and oral explanations by facilitators, this group of students had to act out/create verbal, para-verbal and non-verbal texts,

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and demonstrate respective patterns of behaviour to another student group – the representatives of Richland. Another group of students acting as citizens of the nation of Richland had the main aim of identifying failure at the factory. The latter had to recognise behaviour enacted by the first group of students (which is considered to be the multimodal text) and interpret the behaviour in the context of broader social categories, and find appropriate concepts regarding cultural distinctness (leadership, orientation towards harmony, non-democratic hierarchy, etc.). The particular forms of texts used in the game included various artefacts. For the students to be successful in the game, the specific meanings of the artefacts had to be identified and properly interpreted by the students. Balloons of different colours used in the game were inflated continuously by factory workers, i.e. the representatives of Randömia, throughout the communication. Besides balloons of different colours, other things were also considered as texts – cards, markers, furniture arrangements, non-verbal language (movements, gazes etc.). All of the workers had to inflate ordinary balloons of many colours, but the foreman inflated only special balloons that were larger and much more beautiful than the ordinary ones. This is the only way in which the foreman is distinguishable from the rest of workers. The Richland group had to identify the particular culture of the locals and be able to merge different textual messages into a single, solid text to create meaning. Multiple signs and semiotic channels merged together could help students identify the major problem and win the game. It is quite difficult to use separate parts of the text presented in a different mode, because unidentified, missing text or parts of it becomes an obstacle to perceiving all of the information and tends to distort or hide the main message.

In our game sessions, students failed to identify the complex multimodal text. Students who played representatives of the Richland culture failed to identify the leader of the Randömians (the foreman) through differences between balloon colours, while the leader was the only one who could communicate all the problems and answer all the questions according to the rules. They also failed to establish the correct mode of communication with the leader. As a result, they did not accomplish the task of the game. The results of this game showed that students lacked certain skills in understanding and interpreting multimodal texts. These abilities still have to be improved.

It must be noted though that the roles of student groups playing different cultural groups were different: one group created multimodal texts (by merging movements, gazes, words, actions and artefacts) and another student group identified and interpreted the multimodal text. Thereby, the practical intercultural skills in the creation and interpretation of the text of the two student groups to

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be developed differed. Such differentiation of pedagogical effect and differences in learning outcomes have been observed in many other simulation games.

This simulation game not only imitates cultural differences and cultural clashes, but also aims at evoking players' emotions that would match the emotions that could be evoked in a real-life situation. Students playing the Richlandians with the task of identifying the situation and understanding the behaviour and motives from non-verbal language and artefacts, first of all experienced the excitement and interest of cognition and the game, but having failed to identify the messages, they later started feeling disappointed, irritated and angry, which is similar to a real-life situation when people clash with specific cultural characteristics and cannot understand why and how they failed to establish proper communication. The process of understanding and recognising the described multimodal text, the process of "reading", is accompanied by strong emotions and affects, i.e. it becomes an emotionally charged "reading".

The game observed in this study has revealed that the course of the game can be pre-defined and planned in the scenario only tentatively. The course cannot be determined until the game happens, and depends on multiple factors – the circumstances of the players and of the organisation. This accords with Huizinga's findings, noted earlier, and we see a certain latitude for innovation being left necessarily to the initiative of the player. In the case of this study, the atmosphere of the game was created, and students felt the stress and excitement of the game. However, the players did not win the game as expected; the players did not overcome the stress and failed to solve the riddle of the game: to answer why the Richlandians failed to operate successfully in the local culture. The process of the game itself didn't lead to an expected learning outcome. This was reached in the debriefing stage.

As emphasised earlier, debriefing is a crucial phase to ensure a learning outcome in simulation games. It aims to combine learning as serious work with learning as a playful activity and the unserious spirit of leisure time. The teacher-facilitator must be especially active during debriefing. If the task and mission of the game has not been achieved during the game, it can be finished or corrected during debriefing. Debriefing fulfils the criteria of reflective practice, outlined earlier, that ensures a good learning outcome in combination with experiential learning (which has taken place through playing the game). Negative experience, or failure, may also become valuable ground for learning. During debriefing the players step out of the time and space of the game, stop acting and start representing their real (non-fictional) identities. The course of the game, alternative scenarios, players' mistakes and learning outcomes are discussed.

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In order to analyse the affective dimension of students' experiences, we asked them such questions as: What were the difficulties or frustrations? Was it difficult to recognise the problems? What was it like for you?

For the cognitive dimension analysis, our discussion focussed on three points: non-verbal behaviour, inequality and language problems. In addressing the application dimension, students were asked: What are the three main principles of good intercultural communication?

Debriefing, like the game itself, gives an opportunity for learners to move to the higher sections of the zone of proximal development. Teachers and students provide their reasoning about specifics of intercultural communication, and express opinions and considerations that reveal and criticise cultural stereotypes. During the debriefing sessions for the game "Randömia Balloon Factory", the teacher, as the facilitator of the game, and the students who played the local Randömians and participated in the creation of the multimodal text became the experts on intercultural competence and more competent peers to the students who played the Richlandians and failed to identify the hidden text about particular features of the culture. Negative feelings experienced by the students as they faced otherness, and their failure to identify motives of behaviour were discussed:

> *It was incredibly difficult for us (Richlanders) to understand the workers of Randömia, because we oriented on balloons, colours of the balloons, we tried to figure out the system, but it never worked, and that is why it was annoying to not understand. (student, 24 years)*

> *The biggest problems occurred when we (Richlanders) got all the answers from the workers, but they were not honest, it seemed they were arrogant. (student, 22 years)*

The debriefing gave clarification about cultural differences and the possible content of non-verbal behaviour and the relationship between non-verbal behaviour and main cultural values and attitudes:

> *It felt very strange that the whole group/workers of the balloon factory didn't think for themselves, only the leader could talk more and give us as much information as we asked for. It could be for historical reasons, but this big hierarchical distance or power distance felt strange. (student, 22 years)*

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> *We (Randömian workers) agreed to be polite, but actually we felt like the whole way we talked and behaved was impolite. It is not usual not to look in the eyes in our cultures. (student, 24)*

A psychotherapeutic effect occurs here when the teacher, together with the other students who have played the Randömians and have become the teacher's conspirators and teaching assistants, try to diminish negative emotions and calm down the team who has lost and feels disappointed, to turn the awkward situation of loss into a fun recollection of the course of the game.

Results: Text manipulations in creating fictional cultural identities in the simulation games "An Alien Among Us" and "Ecotonos"

One of the main aims of simulation games is to create fictional cultural identities to be adopted by the players and to arrange the interplay and clash of identities. Players play in groups and usually the necessary element of a game, as Huizinga has noted, is implemented – a competition between players and groups, the struggle for a prize and a reward. A fictional intercultural environment is artificially created in the game – players become representatives and advocates of different cultures. However, there is an attempt to conceal essential information to create the playful element of solving a riddle and the encouragement of cognitive curiosity. In order to imitate cultural identities and cultural clash, manipulation is one characteristic used in texts in simulation games. To create the environment of the game, players are provided with a text providing them with certain information. However, it is not easy for all players to get access to important text, as access to information is strictly regulated and rationed. Not all players have the same opportunity to use the text; texts are differentiated, and the text given to players is not necessarily of the same scope or with the same content. This is necessary in order to create different levels of player expertise and player positioning, in order to achieve different modes of thinking and decision-making, different perspectives in assessment of the same things, and to create stress and friction.

One of the games clearly showing text manipulation in order to imitate the cultural clash between different cultural perspectives is the game "An Alien Among Us" (Powers 1999). The game addresses one of the most important subjects of intercultural education – diversity. The aim of the game is to create an opportunity for players to make decisions on the basis of their assessments of otherness and diversity in categories: race, profession, age, religion, health condition and attitudes. The game mechanism helps develop the essential

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elements of intercultural competencies, i.e., the ability to compare different cultures and cultural awareness.

The game scenario presents a fictional story about a creature called Zor–Zeva from another planet, Bora-X5, that chooses six humans from 12 to represent Earth when they are sent to Bora-X5. Players are asked to guess the arguments and choices of the creature Zor-Zeva and give their own assessment of which of the 12 candidates could be sent to another planet. Players are asked to evaluate the candidates based on the variables listed above. The game provides a complex concept of diversity, aiming to helping learners understand intersectionality: that the categories of diversity (race, age, health condition, profession etc.) in a certain person merge into rather complex combinations, which makes selection of candidates a very difficult and ambiguous process.

Playfulness is achieved by introducing the element of uncertainty and competition between the teams. Students are divided into teams that have to compete with each other and guess who has been chosen by Zor-Zeva, and by discussing it, decide which candidates could be sent to the other planet. Hence, the motive of the game is the struggle to win, and the curiosity, cognitive interest and excitement of the game. In order to increase the intrigue and encourage discussions in the teams, players are not given information about the candidates to choose from: players receive an empty table of characteristics of the 12 candidates, ordered as categories of diversity. Not all information is disclosed to the players. Each team is granted with a point (money) fund to "buy" information from the facilitators (teachers) about the candidates going to Bora-X5. Players must pay for information and "save" points-money to win the competition. The winner is chosen by evaluating arguments and counting the remaining points. By discussing in groups, the players may decide what information they require and what information is not necessary.

One of the interesting elements of the organisation of the game is the separating of ordinary players from experts. The "expert" team of students (about five people) receives a detailed text containing an additional explanation about the importance of diversity for the inhabitants of planet Bora-X5. This information expands the knowledge and understanding of the "experts". They are presented with another perspective of evaluating and seeing – they know not only about the arguments and interests of the humans, but also the motives and understanding of the aliens from another planet. Unlike the other "non-expert" participants, these "expert" players have complete information about all the candidates. They do not need to "buy information", and count and save points. Decisions made by the "expert" team later become the basis for

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evaluating other teams. "Non-expert" teams (the majority of the players) are not provided with texts about the importance of diversity and the possible perspective the other planet may have. Hence, this "non-expert" group becomes a "natural" group of representatives of the humans: they are what they really are – the humans of Earth. The only text this group possesses is a brief explanation about the intention of the aliens to select humans and an empty table of candidates.

Different information and different texts provided to different groups of players ("experts" and "non-experts") help model the clash of different cultural perspectives in the classroom. Another outcome was observed here. Artificially creating student groups with different levels of cultural competence creates the possibility for students to operate at the upper limit of their zones of proximal development, the situation of learning from more capable and competent peers as described by Vygotsky. In the case of this game, these are more informed peers and peers with stronger cultural awareness, whose understanding of diversity has been expanded and strengthened by additional texts with arguments and explanations about the importance of diversity and the possible perspective of seeing and assessment by the aliens. Later, during the discussions, "expert" students who have been given more information and material about the importance of diversity to the aliens and who have selected the candidates during their internal group discussion have become the assessors and commentators to "non-expert" teams. During the simulation game, "An Alien Among Us", we discussed such questions as: What might be the advantages and disadvantages of sending a culturally diverse group on this visit? What are the advantages and disadvantages of sending a culturally homogeneous group? Has your concept of diversity changed as a result of your experience in the game? Are there ethic groups or cultures not represented among our 12 that you feel should have been? Which culture or people? Why? What did you discover about yourselves?

In the case of the game sessions held during this study, though the so-called team of experts was given more information and a broader perspective of cultural assessment and understanding of the importance of diversity as planned by the creators of the game, some expert teams still failed to fully avoid the "ethnocentric perspective" of the humans on Earth. Both the "experts" and the "non-experts" defined the category of occupation as the highest priority of candidate selection (what seemed important to the humans for the trip to another planet to be useful) and failed to evaluate the categories of diversity that would be important to the inhabitants of another planet. The decision about the candidates made by all of the groups of students was not in favour of and, it could be argued, discriminatory towards people of certain ages and weaker

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health. Thus, though the "expert" group's knowledge about the diversity was expanded, they did not rise to a higher level of intercultural competence in their decision making.

In an attempt to complete the game and achieve the desired pedagogical outcome, teachers held a discussion with the students on the importance of diversity during the debriefing stage. This demonstrates that teachers – as those who can maximise the learning outcome, moving the students into the upper limits of the zone of proximal development – must use this opportunity during debriefing if the result is not achieved as planned during the game (turning other students into more capable and more competent peers).

Text manipulation used to create and imitate cultural clash can be found in the game of "Ecotonos" (Saphiere 2008). According to the game scenario, players face an imagined, fictional plot without any particular introduction. The plot is presented in game cards (short texts); the players are divided into two or three fictional groups/cultures – Zante, Delphinus and Aquala – with different values and modes of behaviour. Players are asked to detach from their real cultural identities and adopt another, fictional identity.

Different teams are provided with different texts in cultural rule cards. These are required to form different cultural identities. Cultural rule cards describe only general features of the cultures. This information is not supposed to be disclosed to representatives of other groups. Each group discusses and agrees on how they will enact their rules. Players create more detailed rules of their cultures, for example: dealing with time, non-verbal behaviour, understanding of leadership (eg. who could become the leader, how decisions are made).

Later, players on each team or "culture", are invited to create a story (verbal text) about their culture, a myth symbolising their culture, a legend regarding how the culture was created. Storytelling is a very powerful tool, and helps the groups solidify. Students learn not only to understand the text of their cultures through descriptions and artefacts, but to be the creators of their stories, the authors of the fictional culture, the creators of their new identities. Later, participants perform acculturation exercises – practice their rules and become accustomed to their cultures. At the beginning of the game, players feel uncomfortable as they transform into representatives of different, possibly non-existent cultures. However, in the course of the game the participants become accustomed to these identities and start having fun, feeling that it is quite entertaining to behave as never before. After acculturation, each group is given a task (such as building a bridge or solving a case study) to work on, using their cultural rules.

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Before the groups are able to fully accomplish their task, but after they are well into working on it, some participants are asked to move to another group, thus creating multicultural groups. The final step of the simulation is multicultural problem solving, when participants attempt to complete their tasks in mixed groups. Players find themselves in extreme situations once again and they have to solve the situation with representatives of another group, i.e. culture, who bring their own cultural rules and thus disrupt the already established identity. The creators of the game anticipate that once they mix cultures, players will hold onto their original cultural rules with surprising rigidity. In their attempt to jointly solve the problem (both of Zante and Delphinus cultures), the players face new feelings and emotions, and unwillingness to accept other cultures' proposals and rules; players tend to argue strongly and neither group wishes to compromise, feeling that losing one's own identity once again would be very painful. The objective of the game of "Ecotonos" differs from that of "An Alien Among Us". No final winner is chosen during "Ecotonos". This would be possible if the players stayed with their teams ("cultures") without mixing groups and forming multicultural teams from the teams that had formed their cultural identities at the very beginning of the game. The major achievement in "Ecotonos" is finding a common solution to the given problem or conflict in a multicultural environment, and the feeling of team pride. During the debriefing of the game, the following questions were asked: How did it feel in your monocultural group? Was it easy to behave according to your cultural rule cards? What strategies did you use in the problem-solving process? What were your thoughts and feelings as you changed cultures? What skills did you need for solving the problem? How can you use this experience from the simulation game for your daily life, work or studies? Etc.

Discussion on simulation games as innovative learning resources

In order to define the role of simulation games in the process of intercultural education/learning, it is important to determine their distinctiveness from traditional texts and other learning resources that are traditionally used in intercultural education. It is also important to look at how the medium of learning via simulation games changes the actual process of teaching and learning, and also develops different abilities and skills in the learners.

As Peacock and Cleghorn (2008) have noted, learning materials serve as the authoritative and central source of expertise in a classroom. They discuss the relationship between learning materials, the student and the teacher as the "Teacher-Learner-Text triangle". When analysing learning, it is important to define relationships inside this triangle – "teacher-learner", "teacher-text",

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"learner-text". This study of simulation games has shown that the written text of the game does not play the deciding role in the entire process of the game. The game is only important as a unity where everything – the scenario, planned and described course with rules, the process of playing, explanations, discussions and debriefing – plays an important part. The written text performs an auxiliary function only.

In the case of the simulation game, interaction between learners inside the team and between the teams becomes an important factor. Students and student teams have different relationships with their texts: there are teams with better access to texts, while other groups have limited access to or are provided with completely different texts. Unlike the texts in traditional textbooks or other intercultural educational texts, texts in a simulation game do not provide direct knowledge. The text is used only to explain the rules and create artificial, fictional identities and particular cultural behaviour. Hence, texts in simulation games are not the authoritative and central source of expertise in a classroom. Such expertise is diffusive and fragmented, concealed somewhere "between the lines", between the rules of the game. Texts handed to different players, through manipulation of text and action, appear during the discussion and debriefing. As a result of such fragmented pieces of information being distributed among the players, the main message is not provided in a clear way, its discovery and understanding is not guaranteed. It is very "fragile" information from a pedagogical aspect. However, possible mistakes and failures of understanding of the main message can be compensated for by elements of playfulness. The pleasure of playing for the players exceeds the possible disappointment at the lack of understanding.

The relations "teacher-learner" and "learner-text" in simulation games are specific as the learner is not alone – there is an entire group of students that acquires a fictional cultural identity as a group feature, which means that usage and interpretation of the text also happen in a group.

Textbooks and traditional texts as a certain type of didactic genre render knowledge and are generally based on the explanation scheme. According to Lucas (2008) who studies the didactic genre of textbooks, the explanatory nature of textbooks is revealed in the presentation of material in the form of a relatively detailed statement (a definition of the topic to be explained) and a long, well-constructed development. Textbooks are usually subdivided into a number of sections, each dealing with a specific subtopic. Textbooks need to be devised for reading and browsing. According to Lucas, ordinary chronological reading should be possible, but also "navigation" should be possible for rehearsing special topics. This entails special disposition, that is, each part

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should be independent, yet obviously fit the whole and provide a sense of progression in learning.

Whereas the simulation game as a didactic genre involving experiential learning possesses the element of spontaneity, it is difficult to repeat and could hardly be accompanied with "rehearsal" and navigations. The only way to perform such navigation, repetition of topics, and return to certain points and topics is through recollection of certain stages of the game by discussion of and reflection on the experience of the game during debriefing. Later, "navigation" is possible when recollecting separate elements of the game during summarisation of the entire course of intercultural education. However, such navigation is possible not by returning to the text, separate topics or chapters, but by trying to recollect certain episodes and moments of the game. Hence, the game possesses an instantaneous nature – it is alive as long as it is being played, its physical and material survival is very problematic as certain points and ideas of the game are not fully objectivised on paper, in a material and physical form.

In intercultural education, traditional texts and textbooks aim to present descriptions of cultural difference, the main dimensions, features and types of cultures to students. For example, texts may describe how different cultures could be in terms of Hosftede's dimensions, Gesteland's types, descriptions of characteristic features of separate cultures according to defined types and dimensions, etc. Usually, students find examples of possible cultural clashes at the end of topics, or chapters in the form of critical incidents. These stories describe clashes of representatives of different cultures. Students are invited to discuss reasons for the conflict, dissatisfaction or failed intercultural communication. It is believed that having received information about particular features of cultures in the main text, students will be able to identify these cultural differences in the critical incident.

In the case of simulation games, students emotionally and in action face cultural differences described in textbooks (power distance, collectivism and individualism, types of non-verbal behaviour, low-context and high-context cultures, attitude towards time planning, etc.). The basis of any simulation game is comprised of certain information about cultural differences the reader will find in certain chapters of traditional textbooks, however, students receive this information during the complex process of the game. It must be noted that simulation games help students learn information similar to that found in textbooks (about cultural dimensions and types, differences in cultural behaviour), however, game action happens by playing roles and adopting characteristics of fictional cultures. The most important aspect of simulation

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games is the full adoption of a fictional identity and decision making according to this identity and experiencing possible clashes with groups of other identities.

When creating a text for a learner, one of the major challenges faced is ensuring attractiveness of the text, the ability to evoke "the pleasure of the text" in the reader. What researchers write about the attractiveness of texts in curricula can also be applied in simulation games. According to Aamotsbakken (2008), texts in the curriculum that arouse fantasy and imagination may be attractive. The simulation games discussed here increase the pleasure of learning, erase the boundary between the real and fictional world, between learning and amusement, between work (learning) and leisure time. Texts are introduced into the game, read and used with pleasure and excitement.

As Aamotsbakken (2008) has noted, reading and interpreting texts in a school context adds to the creation of learners' identity. In a school context it is interesting to examine identity-creating functional texts, an identity in transition from childhood and youth to adult life. Imagination and creativity could be stimulated by reading, writing and other activities related to texts. In this regard fictional texts are of even greater significance than short, factual texts.

Therefore, in the discussed simulation games, the fictional stories and identities the students are asked to adopt help form their own identity in an easier way by understanding the personal and collective elements of identity. The simulation game requires a very active and creative reading of text, where students participate in creating multimodal text, and reading, decoding, understanding and interpreting it. It is interesting to study simulation games as a learning resource and text in the context of the "model reader". Aamotsbakken (2008) refers to Umberto Eco's term "model reader", a reader who is the result of a conscious plan by the author of the text. The rules and scenarios of simulation games also imply a model reader. However, as there are a lot of "unwritten", untold and concealed parts of the text present, this stimulates the reader's creativity in creating an "extra" text, thus contributing to the text. Extra text appears in simulation games when students lack the required text (which they have to buy in "An Alien Among Us") and, even if they have it, it is in an oral, visual/non-verbal rather than written form (e.g. as in "Randömia Balloon Factory"). All of this encourages students to be creative and to interpret by developing their discussions. However, in this case, a group is the reader and interpreter, and not only an individual.

Conclusions

During our practical testing of simulation games, we noticed the potential of simulation games to develop important elements of intercultural competence,

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and the particular features of simulation games as educational resources. In other words, games help turn learning into play, which is a necessary component of cultural activity (Huizinga 1971) that reduces the gap between creative activity and rigorous and serious work.

Intercultural simulation games are oriented towards developing the decision-making skills needed to function in an intercultural environment, rather than knowledge (as emphasised by traditional educational texts). A feature of simulation games as educational resources and media has been uncovered – the organisation of the game involves text manipulation (concealing part of the text, differentiating the access of player groups to important texts) in order to artificially create cultural differences and cultural clashes, to create different levels of knowledge and understanding of the players. The simulation game as a unity of rules, texts and organisational steps becomes a specific mediation tool that, following Vygotsky, helps to maximise students' potential within the zone of proximal development, and results in an improvement in intercultural competence if certain interactions between the participants (players and facilitators) are established. The simulation game as a mediation tool creates different positions for the players and facilitators, and allows the development of intercultural skills during interaction with facilitators (teachers) and more knowledgeable peers.

Another important feature discovered in the texts of simulation games is multimodality, where different modes of communication are combined to create meaning. This encourages the development of students' ability to create, read and interpret multimodal texts. At the same time, the practical experience of testing simulation games has revealed the role of simulation games as auxiliary tools that could be used along with traditional intercultural education texts and textbooks to provide systemic and detailed knowledge about differences, types of real and non-fictional cultures, and possible situations of cultural clash and conflict.

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