Gamification in hidden education—teaching migration-related topics through the didactic board game "crossing borders"

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Abstract

Slovenia, one of the smallest European countries, has always been part of various migration processes. As these processes are nowadays an important part of politics and our everyday life, the topics of migration need to be included in the school curricula. The paper presents an example of how educators can teach young people about migration processes through gamification, using an innovative, didactic and strategic board game Crossing Borders. When playing Crossing Borders, players subconsciously learn about the migration-related topics. The game was very well received among all test groups (teachers and students).

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1. INTRODUCTION

Migration flows have a long history, going back about two million years (Bellwood, 2013), or according to Strom (2017), the story of migration is the story of humankind. Migrations are one of the most important features of globalized society in the 21st Century. Studies show that migration flows in the future will be incomparably larger and more extensive than in the past (Kovač, 2003; Farkas et al., 2018). Due to extensive migration flows, the 20th Century has been declared a "century of mobility" (Papademetriou, 2007) or a "century of migration" (Castles, Miller, 2009). According to the United Nations, there were 200 million international migrants worldwide in 2010 (Salzmann et al., 2010), 232 million in 2013 (International Migration Report, 2013), 244 million in 2015 (International Migration Report, 2015), and more than 272 million in 2019 (International Migration Report, 2019).

Slovenia is one of the smallest European countries, but it has nevertheless always been part of different migration processes. In the decades before the First World War, Slovenia was part of intensive emigration processes. During that period one third of the population from Slovenia left the country (Drnoušek, 1999). The second largest emigration took place after the Second World War. In the 1960s, Slovenia changed from a country of emigration to the country of immigration (Malačič, 1991; Malačič, 2008), when mainly immigrants from the republics of former Yugoslavia sought employment in Slovenia. According to the latest statistical data, Slovenia can be classified as an immigration country even in the present (SURS, 2018). Since the 1960s, Slovenia has also been part of transit migration routes leading to other European countries. Although those transit migration routes were mostly limited to individuals or small groups, in the years 2015 and 2016, Slovenia became part of the so-called Western Balkan migration route. Over the period of five months (October 2015–March 2016) more than 460,000 migrants crossed Slovenia (Ilc Klun, 2017a).

Migration-related issues are therefore an important part of politics and our lives (Bartzokas-Tsiompras & Photis, 2019), and as such also part of various national and international political discussions, agreements, and documents (e.g. Agenda 2030). Since the school system is one of the cornerstones of society, the question arises as to how well migration-related issues are integrated into the curricula of individual countries. Migration-related topics should become an integral part of the compulsory school curricula, not only because appropriate integration of the migration-related content could make an important contribution to a comprehensive view of past and modern migration processes, but also because migration is a modern social phenomenon that affects all spheres of society (Bartzokas-Tsiompras & Photis, 2020) and the country.

Each school system has a compulsory curriculum for each subject. The curricula vary greatly from country to country. Some curricula, such as the Finnish ones, are more general, which means that the content is only broadly defined and a teacher has a relatively free hand when organizing a lesson, while others, such as the Slovenian ones, are more specific, which means that general and operational learning objectives are very precisely defined in the curriculum (Konečnik Kotnik, 2008). That means that when preparing a lesson, a teacher has to follow specific learning objectives that are set for each topic. If the topic is not part of the learning objectives in the curricula, the teacher is not obliged to teach about that content.
Slovenian curriculum documents state that teachers should (1) educate young people to respect social diversity and tolerance; (2) encourage students to gain knowledge, develop skills and abilities that enable them to understand global, European and national environment and society; and (3) help them to develop positive attitude towards cultural diversity and intercultural relations. All these general learning objectives can be achieved when teaching about migration. Migration topics should therefore be appropriately included in the educational vertical of each country, which should encourage teachers to teach young people about different aspects of migration processes, causes and consequences of migration, acceptance of cultural, religious, linguistic and other differences, in order to develop a positive intercultural dialogue.

It is important how teachers present migration-related content in class, what they point out about migration and what teaching methods and teaching tools they use for teaching about migration, as that will affect the development of students’ knowledge, ideas and perceptions about migration. Teaching about migration as an ongoing theme provides a lens to explore our past, ask new question and open many (new) themes to be discussed: push and pull factors that influence people to migrate, great risk and uncertainty migrants are faced with, causes of voluntary migrations, migrations that are forced upon people due to conflict, war, or economic exploitation, etc. (Strom, 2017).

2. THE METHODOLOGY AND THE SAMPLING

We aimed to (1) establish to what extent the migration-related content is included in the Slovenian curricula; (2) investigate how these topics are implemented in textbooks for different school subjects; (3) test Slovenian students’ knowledge about migration, their perception and attitude towards migration; and 4) find out university students’ opinions about migration. The results helped us to develop a didactic board game that allowed students to learn about migration in a non-traditional way, through gamification.

The study consisted of four parts. In the first part, we analysed Slovenian primary and secondary school curricula for different subjects using the descriptive and non-experimental methods (Sagadin, 1993). We used a combination of traditional empirical-analytical and interpretive research. The results of quantitative and qualitative analyses complement each other. We decided to analyse the primary school curricula (a 9-grade basic education system) for the following subjects: geography, history, civic and patriotic education and ethics, and social studies; and the secondary school curricula (upper secondary education, which corresponds to high school education) for geography, history and sociology (Table 1). We expected the selected curricula to include migration-related learning objectives.

<table>
<thead>
<tr>
<th>School subject</th>
<th>School curriculum</th>
<th>Grade (basic education)/Year (secondary education)</th>
<th>Number of lessons</th>
</tr>
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<tbody>
<tr>
<td>Geography</td>
<td>Primary school geography curriculum</td>
<td>6</td>
<td>35</td>
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<td></td>
<td></td>
<td>7</td>
<td>70</td>
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A quantitative analysis was conducted to determine the numerical representation or frequency of references and terms (Good and Scates, 1967) in relation to the content of migration in each curriculum, highlighting the curricula in which these references were most common. This analysis was followed by a qualitative analysis to find out what students learn about migration in individual school subjects.

Table 2. References for the quantitative analysis of the school curricula

<table>
<thead>
<tr>
<th></th>
<th>migration</th>
<th>border</th>
<th>minority</th>
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<tbody>
<tr>
<td>migration flows</td>
<td></td>
<td>reasons for migration</td>
<td>diaspora</td>
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<tr>
<td>immigration</td>
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<td>migration policy</td>
<td>citizenship/citizen</td>
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<td>emigration</td>
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<td>asylum</td>
<td>homeland</td>
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<td>migrate</td>
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<td>migrant</td>
<td>human rights</td>
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<td>emigrate</td>
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<td>emigrant</td>
<td>multiculturalism</td>
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<td>immigrant</td>
<td>interculturalism</td>
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<td>migration countries</td>
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<td>migrant worker</td>
<td>identity</td>
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<td>immigration countries</td>
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</table>

Slovenian teachers very often base their teaching on the content of textbooks, even though they may differ to some extent from the content of the curriculum. In order to
get a perspective on how migration content is integrated into textbooks, we analysed 54 textbooks of different school subjects in the second part of the study. The aim of this analysis was also to determine whether there are some content-related differences between the curricula and the textbooks when it comes to migration.

In the third part, we focused on students’ existing knowledge and understanding of migration, and their interest and attitude towards migration. We therefore conducted a survey, which was divided into three parts. Part A contained mostly demographic questions about a student, part B referred to the student’s already acquired knowledge about migration, while in Part C, we wanted to learn about the student’s interest and attitude towards migration. The questionnaire provided us with a comprehensive insight into the knowledge about migration that students acquire during the formal schooling as well as into their interest and attitude toward migration-related topics. A total of eleven schools responded to our invitation, four primary schools (4th to 9th grade) and seven secondary schools (1st to 4th year). In total, 1,103 students took part in the survey.

The fourth part of the study was focused on university students’ perception of migration in the years 2015/2016, when Slovenia was part of the so-called Western Balkan migration route. A total of 75 university students participated in this study. They wrote unstructured essays, through which we examined young people’s positive or negative attitudes towards migration and the reasons for them. The university students were only given the title of the essay without any further restrictions, so their task was to express their feelings and thoughts about migration in the way they wanted to.

The results of all the above-mentioned parts of the study formed the basis for the design of the content, form, and type of a didactic board game. From an early age, play is a basic children’s activity. However, playing does not mean that the child is "only playing with a toy or playing a game", it also means that through play the child can be educated from an early age. As the child grows up, toys and games that they play with and learn from change. Many games are mostly used for informal education, but in recent decades educational games (traditional and digital) have been integrated into various forms of formal education because of their positive effects. Games make an individual more attentive, as the game usually involves all the senses, which improves the learning process and learning outcomes (Batistič Zorec, 2002).

When an educational game is used in class, the game becomes a teaching tool for active learning. An educational game also enables holistic learning, as it stimulates the cognitive level of students (students combine already learned concepts with the new ones when playing a game), the affective level (an educational game enables the inclusion of emotions and ethical principles), and the psychomotor level. If we develop a good educational game for content that is not interesting for students and it therefore does not motivate them to learn, we could change the situation by playing the right game. Through play they could subconsciously learn about certain school content and, more importantly, become interested or motivated to investigate or explore that content by themselves. Today, more and more studies show that gamification is one of the major trends in education (Kasurinen et al., 2018) and can have a great impact on students’ knowledge, understanding of school contents and the achievement of learning goals, although teaching students through educational games is not a new concept (Ervin et al., 2017).
3. RESULTS AND ANALYSIS

The results of the quantitative and qualitative analysis of the school curricula showed that, with regard to the integration of migration-related topics, we can divide the curriculum documents into two groups. The first group represents school curricula from which the content of migration is excluded—there are no references and no learning objectives directly related to migration (primary school geography curriculum, primary school civic and patriotic education and ethics curriculum, gimnazija sociology curriculum), whereas the second group represents curricula that include migration content in references and learning objectives (primary school history curriculum, gimnazija geography curriculum [general, classical, and gimnazija of economics programmes], general gimnazija history curriculum, primary school history curriculum, primary school social studies curriculum). However, when learning objectives about migration are included, there are only a few (1–3) of them and usually associated with migrant-related terminology (e.g. knowing the terms migrant, emigrant, immigrant). According to the revised Bloom’s taxonomy, most of the said learning objectives correspond to the levels of remembering and understanding, where students have to remember facts and basic concepts, and explain ideas and concepts, while the higher levels, applying, analysing, evaluating and creating, are excluded. The exclusion of migration-related content from the curricula seems problematic since migrations are the result of global changes, they affect “economy, social relations, culture, national politics and international ties” (Castles, 2004, p. 124), and are as such intrinsic part of modern society in the 21st century. Therefore, this content should hold an important place in the revised school curricula, which should include general and operational migration-related learning objectives.

When teaching about migration, teachers might consider some guiding questions, as proposed by Strom (2017):

- Why do people migrate? When do people migrate by choice and when is migration determined by circumstances? What events are forcing individuals to migrate?
- What factors influence how communities respond to migration? When are individuals and communities welcoming and when hostile to newcomers?
- How does migration impact on migrants and their host communities? How does the experience of migration influence the identities of newcomers and their descendants?

As the results of the analysis of certain curricular documents showed a complete lack of migration content, we decided to perform an analysis of school textbooks. Although they comply with the content of the curricula, authors, editors and reviewers, who play a vital role in integrating learning content into the textbook, could decide to include individual thematic areas which are not prescribed by the curricula. The results of the textbook analysis showed that textbooks include content about migration, irrespective of whether this content is completely omitted from the curricula. Migration-related content is included in the textbooks for geography (grades 7–9 at the primary school level and years 1–3 at the secondary school level), history (grades 8–9 at the primary school level and years 2–4 at the secondary school level), and social studies (grade 5 at the primary school level). The textbooks for sociology and civics and patriotic education and ethics do not include migration-related content. The results showed that even if the content about migration is excluded from the curricula, it can find its way to textbooks,
but only if the author of the textbook considers the content to be important for a particular school subject. This is also the reason why the topic of migration, although excluded from some curricula, is presented so differently in textbooks (Ilc Klun, 2017).

We also wanted to verify the assumption that teachers often follow the content of textbooks more than the content of the curricula with the help of a survey conducted among students of primary and secondary schools, in which we were primarily interested in their level of knowledge, understanding and perception about migration. The survey confirmed that students in primary schools learn about migration; almost half (46.3%) of the primary school students gained the most knowledge about migration during geography lessons and a little less than 15% during history lessons despite the absence of the migration content in both curricula. We can thus indirectly conclude that teachers follow the content of textbooks more than the content and learning objectives from the curricula and that textbooks have a key role in the content structure of the educational process. The results of the survey among 1,103 students also showed that students’ knowledge of migration is very poor. Among 1,103 respondents, less than a half (45.5%) can define the term “emigrant” and less than a quarter (24.8%) the term “economic migrant”. The survey also showed that the majority of students are only partially interested, not interested, or less interested in migration-related topics (57.7%). On the other hand, more than 70% think that the content about migration should be more integrated into the curriculum (Ilc Klun, 2017). Students are only partially interested in migration-related topics as they are presented in schools today. The majority of them stated that the way migration-related topics are presented and taught in schools is not interesting; they find teaching materials, tools and teaching methods uninteresting and outdated (Ilc Klun, 2019).

The results of the unstructured essays showed that when talking about migration, social media, particularly Facebook, have a considerable influence on students’ (mostly negative) opinion. In the study, 41% of students stated that the migration crisis in 2015/2016 would have a negative impact on Slovenia, 28% stated that migration crisis would have a negative impact on the EU, 30% of students pointed out that migrants would cause economic problems and other (social, political, linguistic, religious, cultural) conflicts (Ilc Klun, 2017a).

The results of all parts of the study showed that there is a challenge and a need to create a new teaching tool in order to help students learn about migration processes, to motivate them to learn, to help them better understand migration processes, and to enable them to acquire knowledge about migration through representative teaching materials and not through social media.

3.1. The game Crossing Borders

The results of the study led us to the development of a didactic game through which students can gain knowledge about migration in an interesting and innovative way. The author named the game Crossing Borders.

The main objectives in the development of the game were the following:
- introducing migration-related topics into the curricula and into the teaching and learning process in a way that would engage students and spark their interest;
- enabling students to learn and understand migration-related terminology;
- allowing students to gain a more comprehensive insight into migration processes;
informing students that migrants have to cross different borders—physical, political, cultural, linguistic, religious, etc.;
- confronting students with the causes of migration (push and pull factors);
- giving students the opportunity to experience the situation of a migrant and put themselves in the position of a migrant;
- providing an opportunity for additional discussion about migration-related issues, including students' feelings and opinions.

The goal was to develop a game that can generate learning objectives and enthusiasm for learning. Unlike most digital gamification projects, the idea was to create a board game (this decision was in line with the general popularity of board games). The game Crossing Borders is not intended to replace an entire learning course on migration but to provide an interactive teaching tool on migration.

The game Crossing Borders belongs to the category of board games (Tesauro, 1995; Gaudart, 1999; Bochennek, Wittekindt, Zimmermann and Klingebiel, 2007) because the game is played on a table, desk or on a flat surface, on which the content cards are placed to form a "playing board". The game can be further classified as a didactic game (Mrak Merhar et al., 2013) because the game focuses on learning objectives (i.e., knowledge and understanding of migration terminology). Through the game, students learn, repeat and consolidate concepts that are often used in connection with migration topics. At the end of the game, the teacher can also check how many and which concepts the students have learned during the game and whether they know how to use them correctly. The game can also be classified as an educational game because during the game the teacher can educate the students about interpersonal relationships and cooperation, and about adherence to ethical principles. Last but not least, the game can also be classified as a strategy game (Ule, 2011), since the player chooses the strategy of progressing from the starting point (the place of emigration) to the final destination (the place of immigration). In the process of developing the game, we followed the rule that "the game uses its playful nature to attract and motivate players, but the success of the game depends largely on the relationship between challenge, imagination, curiosity, and control" (Kayimbasioglu et al., 2016).

The game consists of 25 content cards, 5 starting position cards, 5 final destination cards, documentation cards (visas, passports, letters of guarantee, citizenship cards, blue cards, identity cards), 5 game pieces, and the instructions. The following 47 terms and references are written on 25 content cards: emigration, melting pot, blue card, asylum, homestead owner, immigration, brain drain, nation, linguistic hybrid, immigration policy, cause of migration, Ellis Island, human rights, migration, passport, diaspora, state border, visa, refugee camp, assimilation, emigrant, undocumented immigrant, citizenship, migrant worker, migrant, pull factors, chain migration, economic migration, multiculturalism, ethnic quarter, posted worker, gold rush, quota system, immigrant, homeland, embassy, push factors, letter of guarantee, White Australia Policy, remigration, "gastarbeiter", migrations from the mountains, Alexandrina women, American Home (newspaper), Slovenian exiles, Article 5 of the Constitution of the Republic of Slovenia. The majority of terms are general and strongly connected to migration, with only the last 6 specific to Slovenia. We have chosen the terms that, according to the past and present characteristics of migration processes, contribute to the general knowledge and understanding of current migration processes. Most of the terms are also included in the school textbooks.
3.2. How to play the game Crossing Borders?

The game can be played by two to 15 players, while ideally the game is played by five players (five game pieces). Firstly, players have to create a game board from the starting position cards, content cards (placed in random order) and final destination cards, as shown in Figure 1. On each content card, there are two migration-related terms on white background (Figure 1), while the definitions of these terms can be found on the other side of the cards on blue background (Figure 1). Each content card also contains a symbol for a specific document (nationality, passport, identity card, visa, letter of guarantee, blue card), which the player will receive if they explain the term correctly. However, there are only a limited number of documents—as many as defined on the five final destination cards, which means that each player will not necessarily receive the document when explaining the term.

Figure 1. The game Crossing Borders (Photo: Mojca Ilc Klun)

Figure 2 shows the board with 25 content cards (the front side is white, with red and blue borders, while the back side, which contains the definitions of migration terminology, is blue), 5 starting position cards (places of emigration), and 5 final destination cards (places of immigration). Due to the 25 separate content cards, the board can be set up in at least 25! (factorial of 25) different ways.

Figure 2. The game Crossing Borders (Photo: Mojca Ilc Klun)
Each player chooses a migration route, through which they cross areas (content cards) with different borders. The goal is to reach the final destination as quickly as possible. The final destination can only be reached if the player has all necessary documents. The player collects documents as they migrate through areas, cross different borders, and give the definition of the terms on the content cards. When the player crosses an area with only one type of border (red or blue), then they explain the term that is written on the content card in a larger font. However, if the player crosses a double border (red and blue), in order to obtain a particular document, they must explain both terms written on the content card. The player can move forward and receive the document only if they explain the term/s on the card correctly. The player who first reaches the final destination is the winner. The final destination is revealed at the end of the game, since the players do not know each other’s final destination during the game.

4. CONCLUSIONS

The educational game Crossing Borders was tested at different levels of the educational vertical: among primary and secondary school students, among the university students at the Departments of Geography at the Faculties of Arts at the University of Ljubljana and University of Maribor, and among geography and history primary and secondary school teachers. It has been presented at various seminars for educators and at national and international conferences.

The game was very well received among all test groups. Teachers considered it a great didactic and educational game, which enables teachers to effectively teach about migration in general and about the Slovenian emigration. The students who played the game emphasized that they learnt and began to understand many new migration-related terms, that the game helped them to understand migration processes and different borders that migrants face when they migrate, and that they welcomed the opportunity to express their feelings and thoughts about migration. The research showed that pupils are motivated when learning about migration through the game, and that the game helped them to better understand global and Slovenian migration related topics.

By playing Crossing Borders, the players subconsciously learn about global migration processes in an interesting, innovative way. They do not build their knowledge through textbooks or traditional explanations of the terminology but through gamification, which is by students’ perception much more motivating. When playing the game, the players do not only become familiar with the migration-related terminology and global migration processes, but also learn that there are different borders between individual areas or regions that migrants have to cross on their way from their place of emigration to their place of immigration. These borders can be both physical (such as political borders of the countries), which are for the most part easier to cross, and mental (e.g. linguistic, religious, etc.), which are harder to overcome because they are more deeply ingrained in people’s beliefs. In the context of migration, migrants and people from host communities are confronted with both types of borders. During the game, the players also learn about different types of documentation (such as visas, blue cards, guarantee letters, etc.) that migrants need or needed in the past when crossing borders. When playing the game, the players also become familiar with
the causes of emigration on the one hand and the causes of immigration on the other (push and pull factors). In this way, through the game, the players learn the basic migration-related terminology, acquire, understand and consolidate their knowledge about migration, and get the opportunity to share their feelings and opinions with the other players. This educational game is suitable for all stages of education (primary, secondary, and tertiary), and for both formal and informal educational processes.

As this didactic game is intended to build knowledge and understanding about migration, and to develop migration-related skills and competencies, the teacher can also use it in the process of alternative knowledge assessment.

Migration and education are indeed intertwined in many dimensions (Dustmann & Glitz, 2011), or as Sjaastad said in early 1962, migration and education are an investment in the human agent.

REFERENCES


