
Spatial Analysis of Well-Being in Language Learning from the Point of View of War Migrants from Ukraine

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Abstract:

Purpose: The article concerns the verification of spatial interdependencies of well-being in language learning of war migrants from Ukraine and the exploration of hidden variables of this index in connection with the region of the last residence. The article formulated three research questions: (1) Is there a relationship between the region of the last residence of war migrants and the previous knowledge of the Polish language and the channels of obtaining information in Poland? (2) Are there connections between education and the region of the last residence of war migrants, which affects well-being in language learning? (3) Is there spatial interdependence for well-being in language learning? In other words, does the proximity of regions affect each other in terms of spreading the Polish language and cause a higher level of well-being in language learning?

Design/Methodology/Approach: The study covered 260 war migrants from Ukraine in 2022, which is 1.13% of people who registered applications for granting the status of a foreigner UKR in connection with the conflict in Ukraine in the Zachodniopomorskie Voivodship. Spatial data mining was carried out using spatial econometric techniques: LISA and Moran I statistics.

Findings: The influence of the neighborhood on the spread of the Polish language and the influence of latent variables i.e. education, previous knowledge of the language, and the use of information channels in Poland on the sense of well-being in language learning were confirmed. Convergence between the regions of Ukraine, which are closer to each other, was noticed in the perception of well-being in language learning, which also had its source in education and previous knowledge of the language (e.g. through trips to Poland, contact with Polish culture and literature, contact with the language at home, school, work, etc.).

Practical Implications: Research results indicate hidden factors affecting well-being in language learning in a foreign country. This knowledge is important for formulating recommendations in socio-economic policy, especially educational policy for war migrants,

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shaping curricula with particular emphasis on the profiles of migrants, and from the point of view of spatial processes.

Originality/value: *The research presented in the article is innovative and fills the cognitive gap in the field of well-being in language learning. Research is interdisciplinary in the fields of global economics, spatial econometrics, human capital management, the economics of education, socio-economic geography, and culture studies or neurocognitive studies.*

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1. Introduction

Considering the data on the number of war refugees in Poland, it must be emphasized that organizational regulations of the educational system are vital since they will provide tools and opportunities not only for teachers but also for principals and institutions that support teaching. The need for additional guidelines applies both to language lessons at schools and extra-curricular activities, such as language courses. In our current social situation, both children and adults participate in these forms of education (Długosz *et al.*, 2022).

The recognition of individual situations of learners – people with migrant experience – is of paramount importance to organizing the teaching process (Mallows, 2012; Catalano, 2016). The latest research, however, shows that migrants’ diverse needs, aspirations, and capacities are not always adequately recognized, and that „refugees are currently caught between the conflicting policy goals of rapid entry to the labor market and the goal of language learning” (Morrice *et al.*, 2021, 679).

The research on factors influencing the effectiveness of migrants’ education – as well as their well-being related to staying in another country, which is also connected to their self-confidence when communicating at the meeting point of cultures – may contribute to improving this situation by developing appropriate

teaching methods that fit in with the inclusive education policy (Taylor and Sidhu, 2012; Block *et al.*, 2014).

According to Polish government data, three months after the full-scale Russian aggression against Ukraine, almost 1.1 million migrants were dominated by people under the age of 18 – 47.36 percent and women – 47.78 percent (Duszczuk and Kaczmarczyk, 2022). According to UN Refugee Agency data from the end of July 2023, 17 months after the beginning of the invasion, 968,390 refugees have been recorded in Poland, making Poland third in Europe, after the Russian Federation and Germany 1,639,725 refugees formally applied for asylum – the largest number in Europe, and 13,386,665 people in total crossed the Polish-Ukrainian border since February 24, 2022 (UNHCR, 2023).

Such many refugees have naturally contributed to the emergence of a multitude of difficulties, including educational problems, especially since a third of Polish schools are attended by students without Polish citizenship (Gmaj, 2021) and it can be assumed – given the long-term nature of the war in Ukraine – that this percentage will remain stable.

The article aims to recognize the interdependence between well-being in language learning of neighboring regions and from the point of view of other features, i.e. previous knowledge of the language, education of a migrant, or the use of specific information channels in Poland in specific languages (Polish, Ukrainian, Russian, others).

The article combines qualitative and quantitative techniques, using the CAWI (Computer-Assisted Web Interview), Spatial Data Mining, and Exploratory Data Analysis methodology. Primary data comes from the author's survey. The authors filled the research gap in the identification of well-being in language learning from the point of view of geographical proximity, previous knowledge of the language, education, and the use of information channels in Poland. The presented study is a novelty in the field of well-being in language learning from the point of view of a war migrant.

2. Literature Review

According to one definition, individual differences are “dimensions of enduring personal characteristics that are assumed to apply to anyone and on which people differ by degree” (Dörnyei, 2005: 4). Interest in factors affecting the effectiveness of teaching goes back to the end of the 19th century. It developed in parallel with the emergence of testing people’s intelligence and their other abilities, as well as the construction of research tools related to our personality, attitudes, specific cognitive aptitudes, and other psychological constructs in the first half of the 20th century (Dörnyei, 2005).

Among the numerous factors that influence learning a second language, certain groups can be distinguished (Gregersen and MacIntyre, 2014), cognitive factors (i.e., intelligence, memory, language skills, learning strategies, and styles) and affective factors (i.e., personality, attitude, motivation).

However, it must be emphasized that these areas mutually permeate and affect one another (Griffiths, 2008; Dörnyei, 2009). Some research also takes into account such demographic variables as age and gender. Other significant factors include environmental circumstances related to the diversity of the environment from which the learners come and which shapes them by providing models and sources of knowledge (e.g., parents' education and social status, the importance of participation in culture, and the level of language aspirations in the family, financial support) (Komorowska, 2009, 118-119).

Culture, including literature and the broadly understood media, together with grammar and vocabulary, are inseparable components of teaching a second language (Kramsch, 2014), especially nowadays, when the media enable the global exchange of information. Research findings show that TV and internet transmissions arouse keen interest in people learning a foreign language (Antonova *et al.*, 2019).

Individualized content selection increases learner motivation, also outside of the classroom, which was observed in studies of how learners use Netflix (Alm, 2019; Martínez and Hunt Gómez, 2020; Türkmen, 2020). The use of well-selected, authentic video material increases engagement (Kabooha, 2016) and may enhance listening comprehension skills, especially in intermediate and advanced students (Kim, 2015), increase vocabulary range (Dizon, 2018), mostly receptive vocabulary, and, to a lesser extent, productive vocabulary (Alharthi, 2020) in different varieties of language (Vanderplank, 2019).

The use of digital-born media, such as social media services, also proved to be beneficial (Manca, 2020), particularly by using it in a controlled manner and with a navigation of appropriateness (Lambton-Howard *et al.*, 2021). The employment of second screen techniques, which consist of simultaneous use of two devices (Beserra *et al.*, 2021), instant messengers (Sherine *et al.*, 2020), especially during the COVID-19 pandemic (Fansury *et al.*, 2020), interactive videos (Dizon and Gayed, 2021), virtual reality (Peixoto *et al.*, 2019), video games (Blume, 2020), and online games (Brevik, 2019) have shown to contribute to foreign language competence.

When organizing the process of teaching Polish as a foreign language to Ukrainian war refugees, special attention should be paid to the selection of the type of media. As shown by the Uses and Gratifications Theory, which also takes into account the use of online media (Stafford *et al.*, 2004), the audience is active and motivated (Quan-Haase and Brown, 2013) and they seek the gratification of their needs in media (Haridakis, 2012). Readers choose media to get satisfaction in areas such as entertainment, information acquisition, social utility, and self-affirmation.

Polish online media are focused on usability and meeting their users' needs to obtain information.

3. Research Methodology

The conducted analyzes use primary data obtained from the survey. The research material in the survey was based on the CAWI methodology. The survey was addressed to participants of Polish language courses at the University of Szczecin (as a foreign language), who were Ukrainian citizens and war migrants at the same time. The research material was obtained in four stages, which were determined by the organization of student groups.

The survey was anonymous and conducted in Ukrainian, and its completion was voluntary. 682 people took part in the Polish language course, which is 1.13% of people who registered applications for granting the status of a foreigner UKR in connection with the conflict in Ukraine (without canceled applications) in the Zachodniopomorskie Voivodship on July 28, 2022 (Anon, 2022). The sample size was 257 people, which means that with a confidence level of 95%, the maximum estimation error is 4.83%. It can be assumed that the material obtained from the survey was representative.

The collected research material was processed and arranged according to the region of the last residence. The participants came from as many as 23 regions of Ukraine. There was not a single student from such locations as the Autonomous Republic of Crimea, Chernivetska, Khersonska, or Sevastopol.

In the survey, respondents individually rated their well-being index in language learning on a scale of 1-10 (1 being the lowest value, 10 - the highest). This index expressed how much the course helped the migrant and improved the knowledge of the Polish language. Other variables were expressed on a nominal scale.

The research problem was formulated in the form of three research questions:

- Is there a relationship between the region of the last residence of war migrants and the previous knowledge of the Polish language and the channels of obtaining information in Poland?
- Are there links between education and the region of the last residence of war migrants, which affects well-being in language learning?
- Is there spatial interdependence for well-being in language learning? In other words, does the proximity of regions affect each other in terms of the spread of the Polish language and result in a higher level of well-being in language learning?

A research hypothesis was put forward: well-being in language learning in one region of Ukraine is spatially autocorrelated with neighboring regions, and the

region of the last residence of a war migrant from Ukraine is a hidden variable strongly related to education, previous knowledge of the Polish language and channels of obtaining information in Poland.

The article aims to identify the interdependencies between well-being in language learning between neighboring regions and the links between the region of the last residence of war migrants and education, age, previous knowledge of the language, and channels of obtaining information in Poland.

The study consisted of four stages:

- Obtaining primary data on war migrants in a survey using the CAWI methodology.
- Evaluation of the well-being in language learning index of war migrants in a survey using the CAWI methodology (Dietrich *et al.*, 2019; Andrews *et al.*, 2023).
- Identifying the spatial interdependencies of the well-being in language learning index using the SDM (spatial data mining) methodology in the broadly understood field of Exploratory Data Analysis (EDA), including techniques such as Moran I statistics, LISA (Local Indicator of Spatial autocorrelation) (Szaruga and Załoga, 2022; Zhou *et al.*, 2023; Vilinová and Petrikovičová, 2023; Li and Zhang, 2021).
- Verification of the relationship between the region of the last residence of a war migrant from Ukraine and education, previous knowledge of the language, and channels of obtaining information in Poland - non-parametric statistics from the field of EDA were used, i.e., Pearson chi-square statistic (Lorenzen, 1992; Curtis and Youngquist, 2013), C-Pearson (adjusted) (also as Pearson's contingency coefficient C - adjusted) (Sadiq *et al.*, 2019; Baak *et al.*, 2020; Richnák and Gubová, 2021) and selected descriptive statistics.

4. Results

The dominant group of Polish language learners who improved their language competencies after arriving in Poland is people with higher education. They constitute 64% of all students: respectively: higher education with doctor degree (Ph.D.) - 2%, higher education with a master's degree (37%), and higher education with a bachelor's degree (25%). 36% of all trainees did not have higher education.

Among them, the dominant group (30%) were people with education above primary, secondary education (18%) and vocational education (12%). On the other hand, people with primary education or no education accounted for 6% of the participants. Regarding prior knowledge of the Polish language, more than half of the war migrants from Ukraine had some previous exposure to it. On the other hand, 46% of the students came into contact with the Polish language for the first time due to the necessity of war migration.

Such diversity of war migrants due to education and a balanced structure of previous knowledge of the Polish language (almost half and half) was the basis for the assessment of well-being in language learning.

Table 1 presents selected descriptive statistics of the well-being in the language learning index, which illustrate the improvement in the knowledge of the Polish language and the sense of freedom to use it.

Table 1. Selected descriptive statistics for the well-being index

Items	Well-being Index in language learning
Mean	8.4
Median	9
Dominant	10
Cardinality	115
Standard Deviation	1.9
Variation coefficient	22.4

Source: Own elaboration based on survey data.

The most frequently indicated value of the well-being index is 10 (as many as 115 indications out of 260). The median was 9, which means that 50% or more of the respondents rated well-being in language learning at 9 (the maximum value is 10).

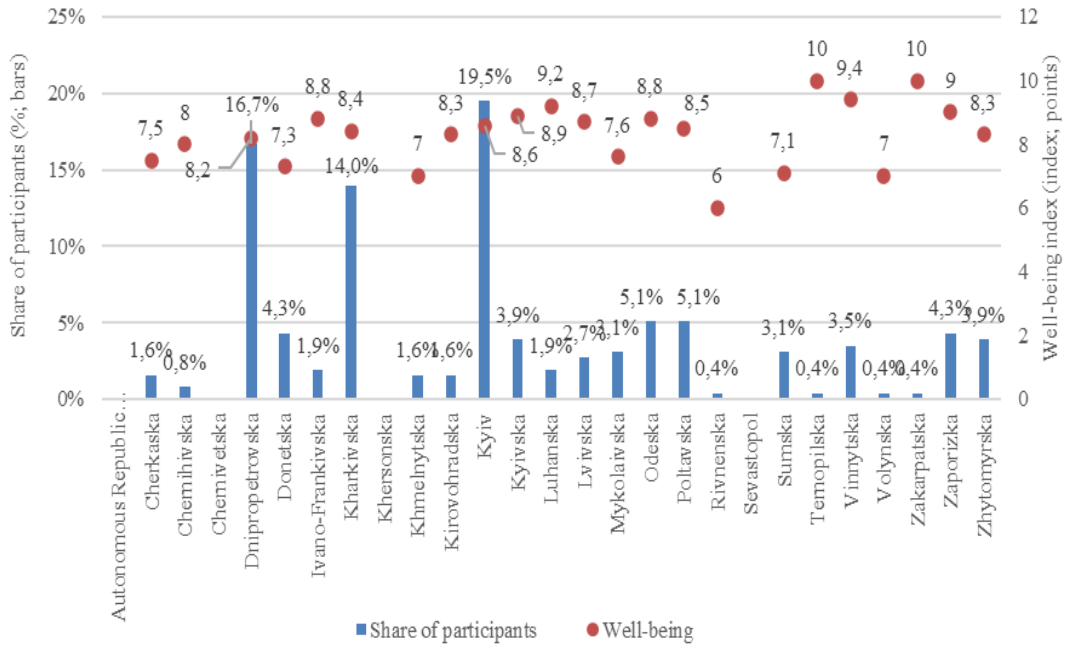
The remaining 50% of respondents rated well-being at a level of 2 to 9. The coefficient of variation in the assessment of well-being in language learning was 22.4% (which proves a moderate differentiation of the feeling of well-being in language learning).

Figure 1 presents the level of well-being in language learning concerning the spatial diversity of the origin of respondents (trainees) from a given region of Ukraine. The largest number of students came from Kyiv (19.5% of all students) rated well-being in language learning at the level of 8.6; then from Dnipropetrovsk (16.5% of all students) and rated well-being in language learning at 8.2, and from Kharkivska (14% of all students) - rated well-being in language learning at 8.4.

Based on the descriptive statistics and the spatial differentiation of the well-being in the language learning index, it can be assumed that there is spatial autocorrelation, i.e. no spatial randomness for this index.

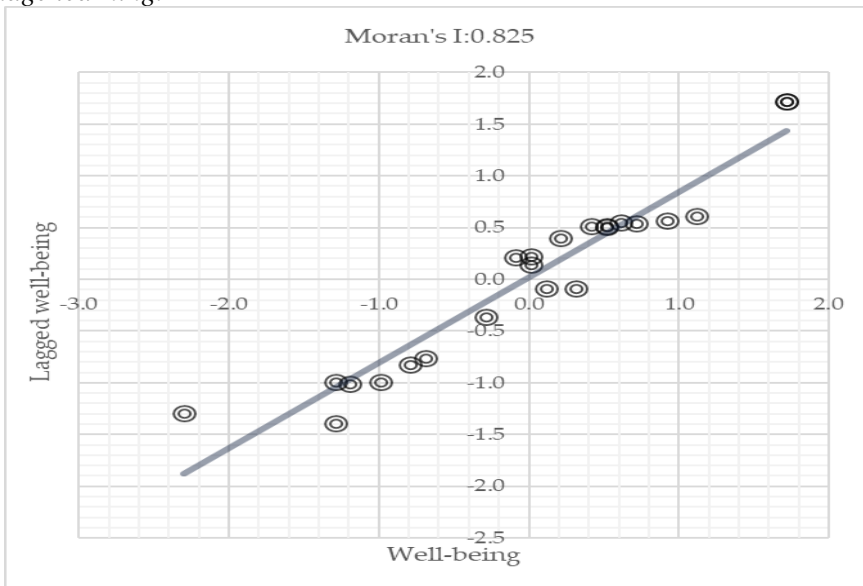
From the analysis of spatial variation, it is noticed that adjacent values are similar, so this is the basis for searching for a positive spatial autocorrelation of an isotopic nature. For this purpose, the Moran scatterplot and the Moran coefficient I will be used (Figure 2).

Figure 1. Distribution of the averaged well-being in language learning index and share of Polish language course participants by region of last residence in Ukraine.



Source: Own elaboration based on survey data.

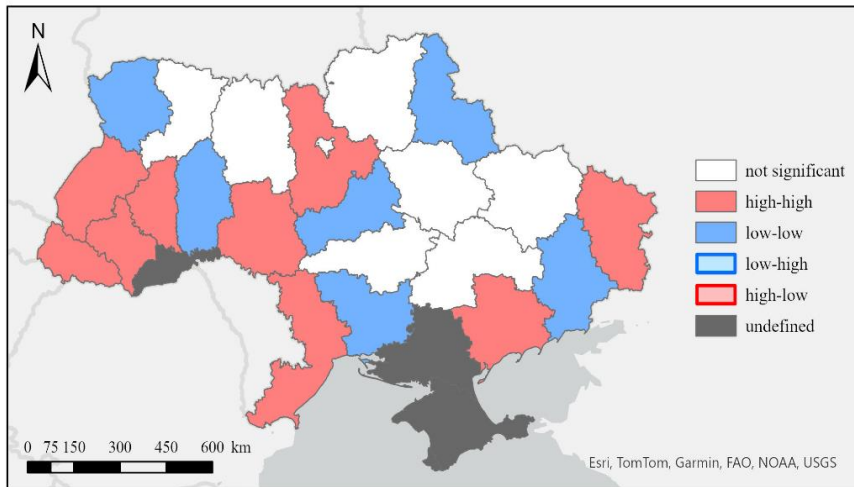
Figure 2. Moran's scatterplot of statistically significant values I: well-being in language learning.



Source: Own elaboration based on survey data.

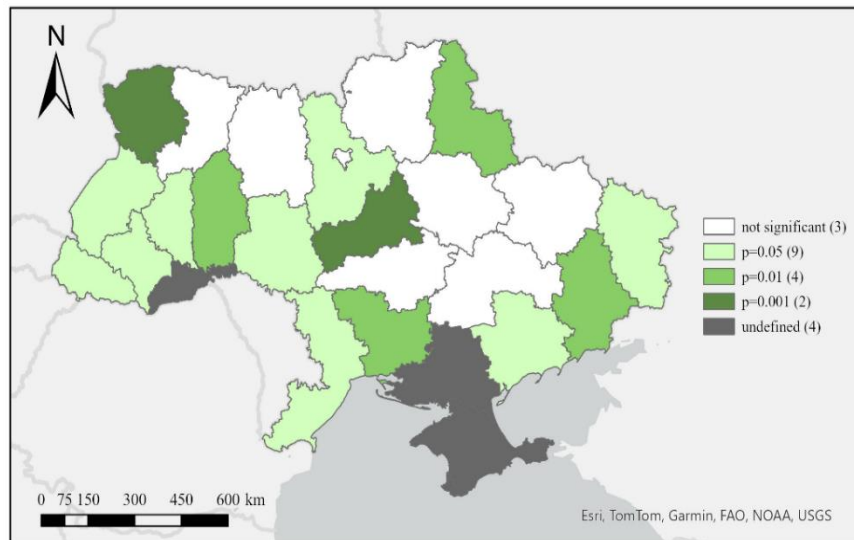
As the Moran scatterplot shows, there was a positive spatial autocorrelation between the well-being in language learning index in neighboring locations. This means that war migrants from closer regions of Ukraine assessed their well-being in language learning in a more similar way. This is confirmed by the concentration map (Figures 3 and 4).

Figure 3. Cluster map of well-being in language.



Source: Own elaboration based on survey data and ArcGIS Living Atlas data provided by Esri. Visualization developed using ESRI ArcGIS Pro 3.0.2 software.

Figure 4. Significance map of well-being in language learning.



Source: Own elaboration based on survey data and ArcGIS Living Atlas data provided by Esri. Visualization developed using ESRI ArcGIS Pro 3.0.2 software.

As can be seen from Figures 3 and 4, there are two spatial regimes: high-high and low-low. The high-high regime means the regions from which war migrants with an above-average higher sense of well-being in language learning come. The low-low regime, on the other hand, means the regions from which war migrants with an extremely low level of well-being come.

No regions contrasting with the surroundings (low-high or high-low regimes) were identified. In the high-high regimes, regions located close to the border with Poland were identified, Zakarpatska, Lvivska, Ivano-Frankivska, and Ternopilska form a cluster of high-high regions, similar to Odeska, Vinnytska, Kyivska, Poltavska and the farthest from the Polish border, Zaporizka and Luhanska.

One higher index of well-being in language learning may result from their desire to learn Polish from scratch and make progress in learning this language. Regions such as Volynska, Khmelnytska, Cherkaska, Mykolaivska, Sumska, and Donetska are defined as regions in the low-low regime with an unusually lower feeling of well-being in language learning.

The region of the last residence in Ukraine by the trainees is a hidden variable that contains a larger load of qualitative information and can be explained by. Each region has human capital that has a diverse statistical and demographic profile. For this purpose, the relationship between the region of last residence in Ukraine and: education, previous knowledge of the Polish language, use of information websites in Poland, and watching television stations in Poland was examined. In the course of the research, significant statistical relationships were verified (Table 2).

Table 2. Identification and evaluation of the relationship between the region of the last residence and other statistical characteristics.

The analyzed variables	Educational	Previous knowledge of the Polish language	Use of information websites in Poland	Watching TV stations in Poland
Pearson chi-square statistic	396.2162	670.4250	206.4485	276.6963
degree of freedom	138	598	138	161
p-value	<0.0001	0.0210	0.0001	<0.0001
C-Pearson	0.7770	0.8489	0.6653	0.7180
C-Pearson (max)	0.9258	0.9789	0.9258	0.9354
C-Pearson (adjusted)	0.8393	0.8671	0.7186	0.7676

Note: Signification level with $p\text{-value} \leq 0.05$.

Source: Own elaboration based on survey data.

Using the Pearson chi-square statistics, there are statistical dependencies (at p -value < 0.05) between the region of the last residence of a war migrant and education; previous knowledge of the Polish language, and the use of information channels in Poland (information websites, TV stations). These are mainly strong dependencies.

The strongest relationship is between the region of last residence and previous knowledge of the language (the strength of the relationship between the examined features expressed by $C\text{-Pearson}_{\text{adj}} = 0.8671$); then between the region of last residence and education; the lowest between the region of last residence and the use of information websites in Poland (0.7186). In other words, it can be said that the region of Ukraine where the war migrants lived affected the previous knowledge of the Polish language and education; but it was also correlated with the information channels used by war migrants in Poland.

It can also be assumed that these are hidden variables to explain well-being in language learning. The resultant of these 4 components affects the value of this index. The proximity of certain regions of Ukraine could have resulted in a stronger spread of the Polish language in Ukraine, which affected the earlier knowledge of this language. On the other hand, education and information channels (apart from the course) used by the migrants could strengthen language skills, broaden them, or be a natural language learning channel.

The conducted research indicates that higher self-esteem – resulting from greater self-confidence – is associated with earlier contact with the language. In the case of war refugees who have come to Poland, the phenomenon of linguistic immersion has occurred, which, from the perspective of researchers, is conducive to acquiring language competencies. Knowing a language that is widely used in a given country is important for refugees since we should „underline the importance of majority language proficiency for promoting increased intergroup contact” (Tip *et al.*, 2019).

Higher self-esteem, as observed in the research, was characteristic of people who supported their linguistic immersion with conscious decisions to maximize their contact with language, for instance by using Polish news channels. It is worth emphasizing that even in a situation where not everything is clear at first, the use of media allows learners to become familiar with the sound of the Polish language. As mentioned above, the selection of appropriate teaching materials is vital in teaching Polish as a foreign language.

The research results presented above show that refugees do not constitute a homogeneous group and the education contents should be adapted to their capabilities, needs, and preferences, which result, among others, from their region of origin. These conclusions are vital if we want to implement effective integration policies.

It is extremely challenging to describe the refugees as a whole in terms of where they last lived in Ukraine. According to online surveys conducted in April and May 2022, the largest group were residents of the regions (oblasts) of Kyiv (35%), Dnipro (12%), Kharkiv (7%), and Lviv (7%) (Izdebska-Długosz *et al.*, 2022), which is consistent with the research results presented herein.

However, it should be assumed that the structure of this group has changed over time. The decision-making process was and still is influenced by the current situation in Ukraine, including the places of fights and attacks by Russian troops, and the fact that a large number of refugees have returned to their country and these proportions may change.

Ukrainian-Russian bilingualism is another important context in teaching Polish as it affects not only the knowledge of vocabulary and grammar but also pronunciation in a third language (Sypiańska, 2022). According to the results of research conducted in 2016 – i.e., before the start of the full-scale war in Ukraine – in Lviv, the dominant language the media used (literature, press, radio, television, cinema, and the Internet) was Ukrainian, less often Polish and Russian, although a significant proportion of respondents emphasized that they would like to learn Polish (Levchuk, 2022).

It is worth underscoring that Ukrainian citizens living in Poland see that knowing Polish is fundamental if a foreigner is planning to settle in this country (White, 2022) and declare their willingness to learn Polish, regardless of their current level of proficiency (Levchuk *et al.*, 2022).

The Polish language has a specific status in Ukraine and its knowledge results from at least several factors; it is a language of a national minority, its knowledge results from the Polish language being the relic of the official language before 1939, the Polish language has become a “close” language for many citizens of Ukraine due to trips and migration – also for economic purposes – to Poland after 1990. Before the outbreak of the war, the largest group of migrants were citizens of the western region of Ukraine – 34 percent (Chmielewska-Kalińska *et al.*, 2023).

The next elements were independent learning of the Polish language and participation in language courses (Kowalewski, 2022). For some, especially elder residents of western Ukraine, the Polish language also has a symbolic meaning (Pelekhata, 2020). It is important that the groups of refugees could include students of Polish-speaking schools who reported in the surveys that the dominant language in their family homes was Polish or indicated Polish-Ukrainian bilingualism in communicating within the family (Shevchuk, 2021).

The high correlation between the self-assessment of the level of Polish language proficiency and the region of residence in Ukraine has a strong basis in the social, cultural, and economic realities. It can even be considered that war refugees from

western Ukraine were, in a way, a privileged group in the context of learning Polish as a foreign language. The Polish language was closer to them and used more often even before the outbreak of full-scale war.

The second discussed area is the education level declared by the participants of the surveyed group. Already 10 years ago, the vast majority of the surveyed Ukrainian citizens with higher education, especially from the western regions, declared they had plans to migrate (Bilan, 2013). The visible correlation in the research results, however, is based rather on the origin of the students of Polish language courses from regions where the level of education is rated higher, mainly from regions with strong academic centers, e.g., Lviv, Kyiv, Dnipro, or Kharkiv (Lesik *et al.*, 2022).

An additional factor is the knowledge of English, which is a derivative of education. During the practical classes, students and people with higher education stated they did not have any problems with the Latin alphabet because they had already learned and practiced it during English classes. A different opinion was expressed by older people and people without higher education, for whom reading even short statements in Polish was a significant problem.

To an extent, the previous knowledge of the Polish language declared by the respondents coincides with their declared level of education. Moreover, the war – and the unrest and disturbances that it entails – has had an impact on teachers who instruct students in Ukraine (Lavrysh *et al.*, 2022) and the process of organizing education. The war mainly affected the eastern regions of Ukraine, which may further deepen the disparities between the regions. It should be emphasized, however, that – as in other regions of the world – the proximity of a strong academic center was more important.

The third statistically significant variable was the way war migrants used the media in Poland. Despite huge efforts of organizations and volunteers to help war refugees in Poland, the media are the basic and most easily accessible source of information. Refugees from Ukraine who took part in Polish as a foreign language courses declared that it was through the Internet that they most often found practical information. The ways of using media shown in the research findings are confirmed by the results of the survey on motivational factors in learning Polish. Among the most frequently indicated answers were: higher education, work, and settlement (Levchuk, 2019).

The use of technology is all the more important as it is no longer just a tool to support foreign language teachers but is now the main source of content for learners both in the mother language and second language (Otto, 2017). Hence, an additional element introduced by the teachers was the use of media as a source of texts for the tasks for the students. The media are a collection of authentic materials, and the benefits of using them while learning a foreign language include a positive impact

on students' motivation; providing authentic cultural information; exposing students to real language, more closely related to students' needs (Fansury, 2019).

The media – especially digital media – are the future of foreign language teaching thanks to the opportunities they give teachers and the interest and commitment they arouse among students (Ezeh *et al.*, 2021). Exercises prepared using digital tools – such as computer-mediated collaborative writing or automated writing evaluation – can also help learn to write in a second language (Li, 2021).

The shift towards online communication is all the more important as the war also affected the organization of the education system in Ukraine and local students use remote learning systems. Therefore activities based on electronic media allow teachers to stay connected with students also after they leave Poland.

To summarize, despite the fact that a large amount of information and messages in Ukrainian is present in the public space in Poland (Levchuk, 2021), it is necessary to run Polish language courses that are organized appropriately and in a manner adapted to students' preferences and abilities. Organizational actions are necessary because increased stress can also manifest itself in the phenomenon known as language anxiety (MacIntyre and Wang, 2022), which results in a fear of using a second language and difficulties in its acquisition.

When preparing courses for war refugees, the region of their previous residence in Ukraine, previous knowledge of the Polish language, level of education, and the way they use media in Poland should all be taken into account. The awareness of these variables will allow us to obtain the desired level of linguistic well-being, which will in turn help war migrants to find their place both in the labor market and in the educational sphere, and generally in the economic, social, and cultural reality of their country of residence.

5. Conclusions

The conducted research allowed us to identify significant relationships between the region of the last residence and the previous knowledge of the Polish language and the channels of obtaining information in Poland (after leaving Ukraine). The links between the region of the last residence of war migrants and education were also identified, which had an impact on the formation of well-being in language learning.

In addition, the spatial impact on well-being in language learning was identified in terms of spreading the Polish language. War migrants from closer regions of Ukraine had a similar assessment of well-being in language learning. Exploratory data analysis in the field of spatial data mining allowed for the verification of hidden variables illustrating well-being in language learning.

Based on the research results, several key recommendations for the educational policy of war migrants can be formulated, the implementation of which may bring economies of scale:

- Creating forms of compensation for migration separation by organizing courses in groups with similar emotional and educational development.
- Professional organization of language support groups as a supplementary form to the courses, to increase the effectiveness of language learning.
- Social inclusion by improving language skills by war migrants is a fundamental requirement (even statutory) for better assimilation.
- Constant monitoring of language progress and periodic modification of language course programs depending on hidden factors (e.g. education, previous knowledge of the language through trips to Poland, learning at school, at home, etc.). Also maintaining contact with participants after the course to monitor the need to improve professional qualifications.
- Disseminating information among registered migrants about the possibility of participating in a language course, together with ensuring sources of financing for this course from the state budget.

The research hypothesis was verified and the research goal was achieved. Research questions were also answered. The research results indicate that recognizing the hidden factors of well-being in language learning is necessary, as it allows the course to be adapted to the education and predispositions of a war migrant.

The limitations of the study result from its assumptions and data. War migrants, as a result of their war experiences, identified themselves with some questions, while others were afraid of censorship and gave hints in a diplomatic manner, which could affect the quality of the material obtained.

In future research, it is worth expanding the research directions to include additional statistical features and increasing the level of data granulation. In addition, it is worth formulating questions that can be used in the DEMATEL (DEcision MAKing Trial and Evaluation Laboratory) methodology for identifying the role of cause-and-effect factors in maximizing well-being in language learning.

The research presented in the article is innovative and fills the cognitive gap in the field of well-being in language learning. In the analyzed literature, connections in a similar context have not been studied so far.

Research is interdisciplinary in the fields of global economics, spatial econometrics, human capital management, the economics of education, socio-economic geography, and culture studies or neurocognitive studies. The research results can be useful for economic practice, didactics (also glottodidactics), and programming the educational policy of war migrants.

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