

Differences in the Level of Global Competence: A Case of Visegrad and Baltic Countries

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Abstract: The concept of global competence gained significant attention in the recent years, since especially young people are expected to effectively cooperate with individuals coming from diverse cultural and value systems. The aim of the paper is to provide an analysis of differences in the level of the global competence between Visegrad and Baltic countries as well as within these countries, in terms of gender and socio-economic status of the students. Based on comparison of the results of the OECD global competence survey released in October 2020 it can be concluded that students from Baltic countries show on average relatively higher level of global competence than students from Visegrad countries. Moreover, girls in the most cases and students with a more favorable background in all cases, report significantly greater level of global competence in each observed country.

Keywords: global competence; assessment; gender; socio-economic status

JEL Classification: F69; I24; Z10

1. Introduction

In the recent years, the concept of global competence is in the focus of attention of not only individual scholars but also international institutions, since many challenges and issues spill over from country to country and quickly become global. Hence, besides other aspects of personality development necessary for successful professional life such as emotional intelligence (e.g. Mura et al., 2021) specific competences needed for living in increasingly interconnected and changing world are important too. Especially young people are expected to cooperate with individuals coming from diverse cultural and value systems, while solving complex problems and creating economic and social values.

The concept of global competence itself is broadly described in the literature as a set of knowledge and skills that should make it easier for people to understand the environment around them, integrate across disciplinary areas in order to capture global issues and events and create opportunities for solutions (Reimers, 2010). More precisely, globally competent people have capacity to explore the world outside their immediate surroundings, recognize one's own and others' perspectives, communicate ideas effectively with different audiences and take steps to improve conditions (Mansilla & Wilson, 2020). The multidimensional facet of the global competence is reflected also in the approaches designed to its assessment.

One of the most known approaches based on dimension scope originally created by Hunter et al. (2006) is the Global Competence Aptitude Assessment, which was created on a basis of surveys of internationally renowned experts. Although it was originally aimed at assessing the global competence of employees in multinational companies without taking into

account other groups of the population, over time it has also found application in educational institutions (e.g. Schenker, 2019). However, one of the shortcomings that limits the wider international applicability of this instrument is its focus on the U.S. environment without considering broader international context. There are also some other individually developed approaches for assessment of global competence that are rather narrower in their scope or designed for specific situations or conditions (e.g. Li, 2013).

One of the most recently developed approach in this regard is the global competence framework, introduced by the OECD's Program for International Student Assessment (PISA) in 2018. Since the OECD considers the concept of global competence to be a key issue for education systems around the world, it highlights own dominant status in evaluating such key interest (Andrews, 2021). The OECD global competence framework itself as well as the outcomes of evaluation published in October 2020 (OECD, 2020) evoked extensive academic discussion in this regard (e.g. Engel et al., 2019; Robertson, 2021).

Since outcomes of global competence assessment under PISA provide internationally comparable indicators of students' performance in various dimensions, these results form a basis for analysis conducted within this paper. The methodology section of the paper introduces briefly the global competence framework itself, as well as the selection of the data used for own analytical purposes. The subsequent section brings the results and their discussion followed by concluding remarks.

2. Methodology

The aim of the present paper is to provide analysis of differences in the level of the global competence between the group of Visegrad and Baltic countries as well as within these countries, in terms of gender and socio-economic status of the students. Based on this, following research questions are formulated:

1. Are students from Visegrad countries more globally competent compared to their counterparts from Baltic countries?
2. Do boys show a different level of global competence compared to girls?
3. Do students living in diverse socio-economic environments show significant differences in the level of their global competence?

Only those countries that take part in the PISA global competence survey are included in the analysis, namely Slovakia, Poland and Hungary for the group of Visegrad countries and Estonia, Latvia and Lithuania for the group of Baltic countries.

For the purpose of the analysis, results of existing extensive survey completed in 2018 and published in 2020 (OECD, 2020) under the auspices of PISA were used. The survey was aimed to assess the level of global competence of students at the age of 15 years in 66 countries including three Visegrad and three Baltic countries. First, at least 150 schools were selected in each participating country, within which subsequently 42 students were picked out with the same likelihood to complete the survey, however their number could deviate from 42, but could not fall below 20.

Overall, the PISA assessment examines comprehensively whether students can reproduce what they have acquired at the end of compulsory education, as well as how well

students can extrapolate from what they have acquired and use their knowledge in an unknown environment inside and outside the school. Hence, PISA global competence framework has multidimensional nature, which consists of combination of four dimensions assessed through specific questions, as it is shown in Figure 1.

<i>I. Examine local, global and intercultural issues</i> <ul style="list-style-type: none"> - awareness of global issues - self-efficacy regarding global issues 	<i>II. Understand and appreciate the perspectives and world views of others</i> <ul style="list-style-type: none"> - ability to understand the perspectives of others - interest in learning about other cultures - respect for people from other cultures - cognitive adaptability - attitudes towards immigrants
Global Competence	
<i>III. Engage in open, appropriate and effective interactions across cultures</i> <ul style="list-style-type: none"> - awareness of intercultural communication 	<i>IV. Take action for collective well-being and sustainable development</i> <ul style="list-style-type: none"> - agency regarding global issues

Figure 1. Global competence framework (Adopted from OECD, 2020)

The first dimension of global competence framework is designed to assess students' ability to combine the knowledge they have gained about the world through formal education with their critical understanding and ability to form own opinions on local or global issues. The second dimension of global competence is routed around students' capacity to cope with unusual situations, including their interest in getting to know other cultures, as well as their attitudes towards individuals from other cultural backgrounds, including immigrants. The third dimension explores students' ability to engage in intercultural communication and their intensity of contacts with individuals from other cultures. Within fourth dimension, the practical nature of the above mentioned skills is assessed, namely students' sense of independence in relation to global issues and their ability to act for the collective good and sustainable development.

PISA's assessment of global competence is based on the use of the two instruments, namely a questionnaire, which brings self-reported information from students on a set of questions and a cognitive test that is aimed at the cognitive aspects required to solve problems related to global and intercultural issues. With regard to the questionnaire, it assessed students' attitudes, knowledge and skills concerning all four dimensions of global competence. Likert-type scales were used to answer the questionnaire items and individual indexes related to particular countries and questions were further calculated. Positive values in the individual indexes indicate a higher level of global competence in the particular dimension in comparison to the average student across OECD countries and vice versa.

The OECD average refers to the arithmetic average of the results of the countries concerned. Since the main interest within this paper is to conduct comparative analysis of the global performance with regard to the gender and socio-economic differences, the results of testing of differences for statistical significance at the level of 5% are reported too. With regard to gender, positive differences show greater values for girls, while negative differences show greater values for boys. Similarly, regarding differences between other groups of students, i.e. socio-economically advantaged and disadvantaged students, positive differences show greater values for students with advantaged backgrounds (i.e. those in the upper quarter of the PISA index of economic, social and cultural status – ESCS) and vice versa.

3. Results and Discussion

Before analysis of the gaps in the level of global competence of the particular groups of students, the graphical display (Figure 2) shows overall level of students' global competence in the target countries. The OECD average mean partial indexes have the value of zero.

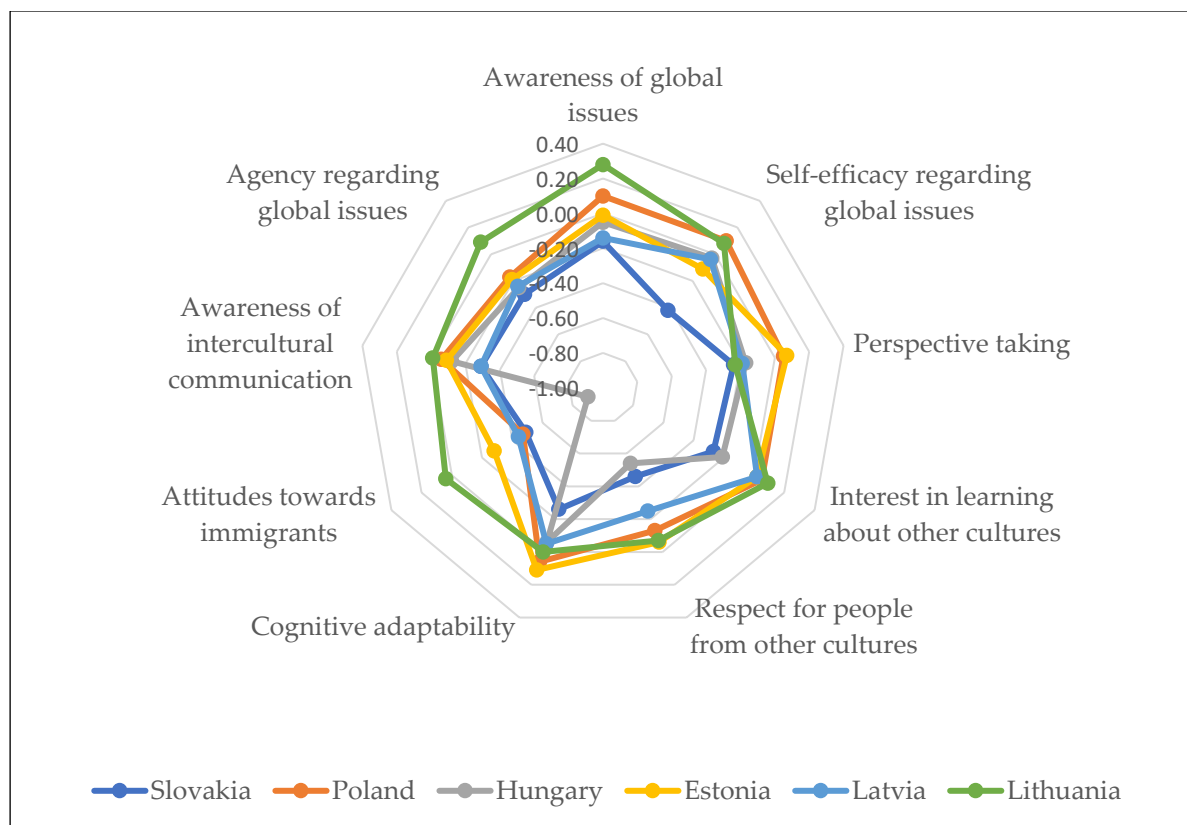


Figure 2. Overall level of students' global competence in Visegrad and Baltic countries (based on the data adopted from OECD, 2020.)

Figure 2 shows that the highest level of global competence, slightly exceeding the OECD average in the most cases, is reported by Lithuania, driven especially by awareness of global issues, such as migration, sources and reasons of hunger, malnourishment and penury at various places of the world. Similar positions oscillating around the OECD average are shown by Poland and Estonia, with the common highest values of the index in cognitive adaptability and the lowest values of the index in attitudes towards immigrants. The relatively lowest level of global competence among Baltic countries is reported by students

in Latvia, with negative values of all the partial indexes except for desire to get to know people from other cultural backgrounds. Students from Hungary and Slovakia showed the lowest level of global competence with below average values of partial indexes in all cases. Extremely low values of the index reported both countries in the case of attitudes towards immigrants, which may generally be caused by perception of immigrants as competitors in filling vacant working positions as well as by their negative impact on public sources (Facchini & Mayda, 2009).

Within further step of the analysis a comparison of differences in the level of global competence among particular groups of students was conducted. Table 1 and Table 2 show the differences in the values of the mean index of each question designed to evaluate the level of global competence from the gender and socio-economic status point of view, for each Visegrad and Baltic country separately.

Table 1. Differences in the mean index values – Visegrad countries (based on the data adopted from OECD, 2020.)

Dimension	Slovakia		Poland		Hungary	
	Girls - boys mean index	Top - bottom quarter mean index	Girls - boys mean index	Top - bottom quarter mean index	Girls - boys mean index	Top - bottom quarter mean index
Awareness of global issues	0.1372*	0.6583*	0.0450	0.5409*	0.0430	0.5921*
Self-efficacy regarding global issues	-0.0857*	0.5604*	-0.0239	0.6209*	-0.1612*	0.6362*
Perspective taking	0.1922*	0.1060*	0.2964*	0.1865*	0.1202*	0.3113*
Interest in learning about other cultures	0.3109*	0.3662*	0.4239*	0.4316*	0.2948*	0.5237*
Respect for people from other cultures	0.4581*	0.4712*	0.6981*	0.3921*	0.2915*	0.6696*
Cognitive adaptability	-0.0321	0.1524*	0.018	0.2730*	-0.075*	0.3974*
Attitudes towards immigrants	0.2154*	0.2306*	0.3956*	0.0659*	0.1160*	0.2541*
Awareness of intercultural communication	0.2006*	0.3918*	0.2690*	0.3822*	0.1223*	0.3720*
Agency regarding global issues	0.1268*	0.3485*	0.2122*	0.2646*	0.0595*	0.3616*

* asterisk indicates statistically significant differences at the 95% confidence level

Students' awareness of global issues shows their consciousness about questions like change of climate and warming of the globe, migration, hunger or malnourishment at various places of the world, penury, global health, international frictions and gender gaps. In the case of girls, greater awareness of global issues was shown, however for Poland and Hungary the difference is not statistically significant. Similarly, students with advantageous backgrounds showed in all cases significantly higher awareness of issues with global scope that can be possibly attributed to the differences in access to information about these issues. This might be difficult in the case of vulnerable groups of students who are e.g. subject to grade repetition. Various after school programs could play a key role in this regard, providing these students with additional learning opportunities (Klumpner & Woolley, 2021).

Table 2. Differences in the mean index values – Baltic countries (based on the data adopted from OECD, 2020.)

	Estonia		Latvia		Lithuania	
Dimension	Girls - boys mean index	Top - bottom quarter mean index	Girls - boys mean index	Top - bottom quarter mean index	Girls - boys mean index	Top - bottom quarter mean index
Awareness of global issues	0.0756*	0.5002*	0.1560*	0.4441*	0.2823*	0.6405*
Self-efficacy regarding global issues	-0.0689*	0.5382*	-0.0560	0.6027*	-0.0125	0.6085*
Perspective taking	0.2889*	0.2988*	0.2260*	0.3095*	0.3279*	0.3613*
Interest in learning about other cultures	0.5009*	0.3936*	0.4332*	0.3233*	0.4774*	0.5078*
Respect for people from other cultures	0.5795*	0.4318*	0.4820*	0.5955*	0.5767*	0.5109*
Cognitive adaptability	0.0358	0.4198*	-0.070*	0.4118*	0.0658*	0.4695*
Attitudes towards immigrants	0.2600*	0.1934*	0.2180*	0.1311*	0.4034*	0.2693*
Awareness of intercultural communication	0.2675*	0.3281*	0.2750*	0.2721*	0.3618*	0.3961*
Agency regarding global issues	0.2219*	0.3627*	0.1417*	0.2806*	0.3234*	0.3762*

* asterisk indicates statistically significant differences at the 95% confidence level

Self-efficacy regarding global issues reflects the extent to which students could independently perform certain tasks related to global competencies. Boys showed slightly higher values of the index in this dimension; however, the gender differences are statistically significant only for Slovakia, Hungary and Estonia. With regard to socio-economic status, the findings indicate students in the upper quarter of the PISA index of economic, social and cultural status to have significantly greater self-efficacy concerning problems of the globe compared to students in the lower quarter of that index in all countries. One potential reason for this finding is that students with better access to media including social networks may be more acquainted with topics that are widely discussed in the media, such as global warming or the refugee crisis. According to McNelly and Harvey (2021), teachers should play an important and active role in developing conscious use of media and raising young people's media literacy.

The perspective taking question shows the extent to which students are able to appreciate and understand the worldviews of others who might be distinct in their cultural backgrounds, attitudes, beliefs or practices. Significantly greater sensitivity toward understanding the perspectives of others showed in all cases girls and students with advantageous backgrounds that might be related to the different approaches associated with educational activities within different socio-economic groups as well as to the differences in ability to operationalize cultural knowledge and assess culture-specific situations (LaRusso et al., 2016).

Interest in other people's cultures is generally based on acquiring knowledge about other cultures and willingness to be exposed to various cultural influences. Similarly, as in the case of the previous question, girls and students from the upper quarter of the ESCS

index showed significantly higher willingness to learn about other cultures what can be connected with curiosity, opportunities and sensitivity towards people from different backgrounds (Clark & Seider, 2017).

Respect for people from other cultures is based on the premise that all people have the same inner dignity and the inalienable right to select their own affiliation, opinions, beliefs and practices. The interconnectedness of the questions covering the dimension of the understanding and appreciation the worldviews and perspectives of others is reflected also in gender and socio-economic differences, since girls and students with advantageous background have significantly greater respect for people from other cultures in all reported cases.

Cognitive adaptability is associated with the capability to adapt one's thought and behavior to the prevailing cultural context or to new situations from which new requirements or challenges may arise. In the case of cognitive adaptability, the prevalence of girls is not so significant, what is particularly true for Estonia and Poland. On the other hand, in the case of Hungary and Latvia boys showed statistically significantly higher level of cognitive adaptability. Hence, the nature of gender gap is ambiguous in this question. Similarly as in previous cases, students with more favorable socio-economic status have possibly more opportunities to acquire cognitive adaptability skills which should in turn help them cope with feelings associated with cultural shock, such as stress, frustration, and alienation in novel environments (Levin, 2015).

The overall attitude towards immigrants reflects attitudes to such questions as equality of access to education, the possibility to vote and other rights that immigrants should have. More positive attitudes towards immigrants are shown by girls and students with advantageous backgrounds. These results are basically in line with findings reported by Alivernini et al. (2019) who showed that girls have a more affable attitude towards immigrants than boys.

Awareness of intercultural communication is focused on students' ability to communicate understandably and clearly in a wide range of situations, including interactions with foreign-speaking people. Girls and socio-economically advantaged students in all countries reported more significant ability to communicate across cultures than boys and their disadvantaged counterparts.

Agency regarding global issues is built on the other dimensions of global competence and emphasizes the practical and action targeted nature of the acquired skills. Again, a significantly greater sense of responsibility for the global challenges connected with caring for future generations and actions for collective well-being have girls and students with advantageous background.

4. Conclusions

The present study was focused on comparison of the level of global competence of the students between Visegrad and Baltic countries, as well as within these countries, in terms of gender and socio-economic status of the students. As the main tool, the results of PISA global competence survey were used. The results indicate that students from Baltic countries show

on average relatively higher level of global competence compared to Visegrad countries that is driven especially by Lithuania. On the other hand, students from Visegrad countries are less globally competent even when compared to the OECD average what is influenced especially by their markedly negative attitude toward immigrants. Possible reasons for this attitude can be found in the overall political climate, which is externally presented to the society. However, these aspects deserve further investigation within future research.

In terms of gender, responses on the majority of questions indicate greater level of global competence in the case of girls that can be possibly attributed to their greater cultural sensitivity. Only for “self-efficacy regarding global issues” and “cognitive adaptability” are the results ambiguous, with greater differences among investigated countries. On the other hand, in terms of socio-economic status, students with a more favorable background, (i.e. those in the upper quarter of the PISA index of economic, social and cultural status) report in all countries and with regard to all questions, significantly greater level of global competence compared to their disadvantaged peers. These findings most likely reflect differences in access to advanced education, including language learning, as well as opportunities to travel and practically interact with people from other cultural backgrounds. Deeper investigation of these aspects forms agenda of future research.

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Conflict of interest: none

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