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Ethnic Identities and National State

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Ethnic Identities and National State

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HIDDEN ETHNIC INEQUALITIES. A POSSIBLE GLOBAL EDUCATIONAL EXPLORATION USING PISA

The international educational evaluation programme PISA analyses variances of school achievement of different countries. In several PISA reports there are described criteria of successful schools, and the ways which social backgrounds can be overcome. In the PISA framework educational opportunities are distributed equitably if the student's educational success is independent of their own family background. Based on PISA reports one can have a detailed picture about the school integration of migrants and the factors which have an impact on their educational outcomes.

It is important to underline at the same time that based on PISA results there are no detailed analyses of non-migrant or native national minorities. In some countries the results are presented following (regional) tests in the minority language (e.g. Belgium, Spain, Canada), however a comprehensive analysis of native national minorities educational outcomes has yet to be completed.

Using PISA databases one can gain some relevant information about national minorities' school outcomes (in at least 20 countries). By a cross-tabulation of the language spoken at home and of the language of test (state language or minority language) one can distinguish at least three main stu-

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dent groups: minority students who learn in their mother tongue (language spoken at home: minority language, language of test: minority language), minority students who learn in state language, and students of the majority ethnic group (who learn in majority language, of course).

Having these student subgroups one can test two basic research questions:

1. do minority students who are educated in their mother tongue or the mainstream language outperform among minority students?

2. do native national minority or majority students outperform one another? These comparisons could help us to interpret the variance in student performance in linguistic or ethnic terms. Moreover if after accounting for socio-economic background these variances still remain, we can assume that there exists hidden, ethnic-linguistics inequalities among students.

Key words: educational programme PISA, school integration, migrants, native national minorities, majority ethnic group, ethnic-linguistics inequalities

Introduction. A general picture of PISA assessment and its minority aspects

PISA (Programme for International Student Assessment) is an international educational evaluation programme launched by the OECD in 1997. The aim of PISA is to evaluate education systems by measuring the school competencies of 15-year-old students. In the framework of PISA the student assessment is realized in three basic (key) subjects: mathematics, reading and science. The first international assessment was carried out in 2000, and after that time the evaluation is repeated every three years. In 2000 43 countries, in 2003 41 countries, and in 2006 57 countries participated in PISA. To date over 70 countries/economies are involved in PISA.

Evaluating education systems on an international level is not a new approach; however, it is worth mentioning why PISA represents an innovative educational assessment tool. PISA is a novelty because it measures the performance of students in different countries using similar methodologies and in a comparable manner. Countries can be compared under PISA because it basically measures competencies and skills instead of measuring students' lexical knowledge. Thus, it does not examine the specific contents delivered by the individual educational systems but the practical knowledge attained by students. Today, PISA creates the basis for national level educational development projects because it supplies a wide range of information about the education systems of different

countries (See details: Programme for International Student Assessment 2014). Despite existing critics against the OECD and PISA, this international, large scale level educational assessment remains a basic reference for educational developments in a lot of countries.[1]

During PISA surveys, background questionnaires are also used which enables us to identify different minority groups. In this context, PISA reports mainly focus on various migrant groups but using the more detailed databases we can also gain some information about national minorities.

PISA distinguishes between three types of student immigrant status *i) students without an immigrant background,* also referred to as native students (these are students who were born in the country where they were assessed by PISA or who had at least one parent born in the country); *ii) second-generation students* (students who were born in the country of assessment but whose parents are foreign-born; and *iii) first-generation students* (foreign-born students whose parents are also foreign-born) (PISA 2010, p. 66). Students with an immigrant background thus include students who are first or second- generation immigrants. It is worthy to mention that in PISA-OECD reports schooling of migrant students usually is described in a detailed manner, however the challenges of national minority education are rarely mentioned. [2] This fact is striking because the background questionnaires of PISA more or less facilitate the easy identification of national or linguistic/ethnic minority groups.

One can define national/linguistic minorities in PISA analyses if one compares among native students the language at home and the language of education (test). This way one can distinguish national minority students who study in their mother-tongue from those who participate in mainstream education (i.e. in the nation-state's language). Based on this methodological opportunity one of the main goals of my article is to map out educational effectiveness of school participation of native minority students.

Inequalities in Education and Ethnic inequalities

Inequality in education is probably the most widely discussed topic in the sociology of education. The core issues around inequalities in education imply the multilayered relationship between society and education systems. One of the basic questions here is to what extent can education systems diminish social inequalities and the differences in opportunity between students. Relevant discussions of inequality have focused on educational opportunities and educational choice. The former is related to socio-economic background of the students, i.e. the social (class) position of parents which is usually measured by income, labour force position, highest educational attainment. The latter, the educational choice, could be a means of reproduction of social inequalities because parents, and (strongly related to them) students have different freedom of choice. As a result of these practices some schools tend to be dearer for parents from middle and upper classes, while other segments of the society have no possibility of choice among different educational services. At system level this type of inequality could be grasped on differences between schools. Jackson-Jonsson-Rudolphi has argued that educational inequality separated into performance - and choice-based (primary and secondary) effects provides a fruitful analytical framework (Jackson et al. 2012).

Ethnic inequalities in education can be interpreted in many ways. Firstly, one can analyse the relative educational position of different ethnic groups inside the education system. This is important from a social-integration perspective as differences in school performance and attainment will have an impact on labour-force market, and on social life as a whole. Secondly, ethnic inequalities can be grasped from a minority perspective which is framed by the education system itself. The language of instruction in most cases is taken-for-granted: language minorities in some countries have the right to use mother tongue in education, while in others there is no such possibility. The right to use a minority's mother tongue in education mainly depends on state language policy and ideology. R. Lambert suggested distinguishing between ethno-linguistically homogenous societies, dyadic (or tryadic) countries including two (or three) ethno-linguistic groups, and mosaic societies which contain a large number of ethno-linguistic groups (Lambert 1999). Fishman extended this taxonomy with an ideological dimension, saying that language policy of the state is much more important than the ethno-linguistic composition of country.

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[1]   For example: PISA schock in Germany

[2]   In a recently published OECD report about equity in migrant context there is a small text box concerning Language minorities among non-immigrant students (OECD 2013, p. 78).

Table 1. Types of countries and language policies (Spolsky 2004, p. 61)

Type	Attitude	Ideology	Usual activity
I.	One language is associated with the national identity; others are marginalized	Monolingual	Corpus planning (normativism), foreign language acquisition, diffusion
II.	Two or three languages associated with national identity; others are marginalized	Bi- or trilingual	Status planning
III.	No one language is seen as motivated by the national identity	Multilingual, with varying official status for several languages	Corpus and acquisition planning

As I detailed in an article focused on Hungarian minorities in Central Europe, in order to understand minority school choice, one needs to make it clear that besides the labour market considerations typical in any system of education, the schooling of minority ethnic Hungarians has two unique elements: a community and an equity feature (Papp 2013). The *community element* of minority education in the mother tongue [3] means that education in the mother tongue is carried out in an institutional framework that serves the long-term survival of the minority community. The mere existence of education in the mother tongue is the guarantee of community survival, and this fact is accepted by the stakeholders (the majority of minority politicians, experts, parents, and learners) more or less consciously. Seen in this light, minority school choice is of great importance, since where there are not only different institutions, but institutions of different languages in the local educational market, opting for non-mother-tongue educational institution leads to the self-extermination and assimilation of the minority.

At the same time, minority education has another element that is less elaborated on: the so-called *equity element*. This equity dimension implies that the schooling of all the members of the minority is assured. That statement is valid on a "minority-free" social level as well, but in a minority context, it has an increased relevance because the human resources of a minority group are inevitably more limited than those of an entire state or society. Commitment to education in the mother tongue in an inter-ethnic

environment goes hand-in-hand with a limited range of educational options, which, from the perspective of the school, puts equity even more into focus. Since a school or class in the minority mother tongue can select students to a much lesser extent than a majority school, greater emphasis has to be laid on the improvement of learners with respect to their own achievements. Generally speaking, a minority school cannot afford to let certain students lag behind in the same way as a minority community cannot allow itself to give up any of its elements and social subgroups.

Shortly, choosing language of instruction is important both from a majority and minority point of view and inevitably carries political meanings (Chakraborty, Ghosh 2013, p. 128-147). From a majority point of view, the question of national unity could be at stake, while from a minority point of view survival of the linguistic, ethnic group could be of crucial importance. The interplay between the supposed majority and minority is relative as there are countries where no linguistic majority group can be found. Moreover, the term 'mother tongue' has also different meanings: it would refer to first learned, most used or to the language of (ethnic) identification (Skutnabb-Kangas 1981).

Research Questions

The author of this article is aware that understanding the role of education from a supposed minority perspective presupposes a sound knowledge of the country's educational and inter-ethnic relation contexts. Moreover, I am also convinced that terms like 'minority' or 'majority' could not be easily defined because they have different meanings and connotations based on certain political and geographical contexts. However, my aim is to highlight methodological possibilities to use PISA data for analysing different ways of participation of minorities in education. Therefore, assuming a bit of simplification I will try to map out the complexity of minority education by using PISA data.

Given the above mentioned political stake of minority language education there emerge two basic research questions:

1. Is minority mother tongue education more effective or not than the education of minorities in the dominant state language; and

2. is minority mother tongue education more effective than the majority, mainstream education overall?

The first question is referring to the effectiveness of a certain subsystem of the education system, while the second question can lead us to the issue of equity in terms of ethnicity in education. If minority education in the mother tongue permanently underperforms majority language education,

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[3]   Our present considerations regard minority education in the mother tongue. The notion of minority education is much broader than that (see: Papp 2012, p. 3-23).

it can be interpreted as a structural feature of the system's inner inequalities. Not only theoretically, but in practice the reverse situation is also true, when the minority mother tongue education seems to be more effective than majority language education. These situations (e.g. in Malaysia or Serbia) can be also interpreted as signs of system inequalities.

Methodology

To answer these questions I will use the PISA 2012 student database, and some of the PISA derived variables. The database permits intersectioning of detailed 'language at home' [4] and 'language of the test' variables. By this procedure (see Table 2.) one can distinguish at least three main student groups: minority students who learn in their mother tongue (language spoken at home: minority language, language of test: minority language, type BB), minority students who learn in the dominant state language, type BA), and majority students (who learn in majority language, of course – type AA). Theoretically exists a fourth type of combination concerning majority students involved in a minority language education (type AB).

Table 2. Identifying linguistic minority and majority educational forms

	test language A majority	test language B minority language in a country
language at home A (majority)	majority (type AA)	majority students in a minority education (type AB)
language at home B (minority)	minority – in mainstream language education (type BA)	minority students in a mother tongue education (type BB)

In the PISA database, the variable 'international language of home' (*1 - language of the test; 2 – other language*) misleads us concerning the national minorities education because (in the case of answer 1) it mixes type AA and type BB. Both forms of education are referring to students who use the test language as language at home, [5] however there is a big difference between them: type AA contains only majority students, while type

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[4] Against the 'international language at home' variables which contains only 2 answers, the detailed 'language at home' variables for a lot of countries contains explicit names of locally used languages.

[5] This kind of analytical procedure is used in the one of the last PISA reports (see: OECD 2013, p. 78, Table: II. 3. 5).

BB contains only students being part of a linguistic minority group possessing a minority education subsystem in their mother tongue. Therefore this international variable could be used very often in the case of education systems where there is only one language of provision. In this case, by using this variable one could distinguish between majority students involved in mainstream language education and (native or migrant) minority students who have no possibility to use their mother tongue as the language of education. This perspective is likely to be applied in the case of migrants; however it is also used in a lot of nation-states, where there exist native minorities and only one official language which is at the same time the only language of instruction.

This international language at home variable however could be useful for my research purposes related to linguistic minority groups if it is applied to a database divided by language at home detailed variables. In these cases one can calculate competencies at each home used language level, therefore it offers a possibility to compare the mother tongue education at linguistic minority and majority levels.

Table 3. Language at home

Language at home	International language at home (dummy variable)	Observation
language A (majority)	language at home is different from language of the test (0)	*majority students who learn in a minority language*
	language at home is the same with language of the test (1)	*majority students who learn in their mother tongue which is the state (mainstream) language*
language B (minority)	language at home is different from language of the test (0)	*minority students who learn in majority (state) language*
	language at home is the same with language of the test (1)	*minority students who learn in their mother tongue*

To answer the research questions I will calculate some descriptive statistics and I will also use several indexes. Firstly I will use the economic, social and cultural status index (ECSC), in order to give a picture about the relationships between language use, school competencies and family background. Secondly I will calculate the index of curvilinearity (equity index) counted for each subgroup defined by the language of the test. In this way one can have an idea about the level of equity inside of certain education subsystems framed by test language. It is important to note that "PISA defines equity in education as providing all students, regardless of

gender, family background or socio-economic status, with similar opportunities to benefit from education. For example, the stronger the impact of a student's socio-economic status on his or her performance, the less equitable the school system. Equity, defined in this way, does not imply that everyone should have the same results, nor does it imply teaching the same material or providing the same resources to all students." (OECD 2013 p. 27). The index of curvilinearity (i.e. the *linearity* of the gradient line in a regression model where ESCS and its square are dependent variables) measures "the extent to which the performance difference associated with an advantaged background remains constant across levels of socio-economic background. (…) A positive value indicates that the socio-economic gradient becomes steeper for more advantaged socio-economic students. In other words, as socio-economic background increases, there is an increase in the extent to which inequalities in socio-economic background translate into performance differences. A negative value indicates the flattening off of the gradient at higher levels of socio-economic background: as socio-economic background becomes more advantaged, there is a decline in the extent to which inequalities in socio-economic background translate into performance differences." (OECD 2010, p. 57)

Finally I will create a new index which will reveal the effect of education of minority students in one's mother tongue. This index (MTE) is the unstandardized coefficient of a regression model which tries to explain educational performance by using the student's background (ESCS) and the international test language variables as independent variables. Mother tongue effect (MTE) will be measured by B coefficient of the dummy variable of home language (*1 – language spoken at home is the same as language of the test; 0 – if language spoken at home is not the same as language of the test*). Therefore a positive value of this index (MTE) in the case of native, minority students indicates that education in the mother tongue is better than the education of minority students in mainstream (i.e. the country's majority or state language) education. A negative value of MTE, of course, reports that education in other languages than the mother tongue is much more effective than education in the language which is used at home. In other words MTE expresses how many score-points will be added (or lost) if a minority student learns in his or her mother tongue (and not in a country's or region's mainstream, or official language). It's worthwhile to mention that MTE could be calculated for majority students as well; however, its interpretation could be valid only if in the above defined type AB education form involved sufficiently enough students. Also I should emphasise that in order to avoid the effect

of students' family background MTE is calculated after accounting for the socio-economic background.

$$PV = C + B_1 * ESCS + B_2 * ILH + \varepsilon$$

PV – Plausible values of school competence

C – constant

ESCS – index of economic, social, and cultural status

ILH – international language at home; a dummy variable with categories:
    0 – if language spoken at home is not the same as language of the test
    1 – language spoken at home is the same as language of the test;

B_2 *– unstandardised coefficient, index of mother tongue effect (MTE)*
ε *- residual*

Data and results

In order to have a proper estimation I will use the 80 replicates weights of PISA's 2012 database. SPSS macros for these procedures are generated by using IEA Data Analyser. Calculating standard errors by using replicate weights enables us with high confidence to determine whether a difference on a score-points mean of certain subgroups is significant or not. For the purpose of this article I use only the 2012 student database; however in a detailed analysis for former PISA surveys would be important to apply further the methodology presented here.

Because language at home is not an explicit stratum in PISA surveys a question could arise around the validity of the data. In this regard I apply PISA methodology assessing different types of migrant students. According to this, PISA reports, and therefore my analysis, include estimates based on at least 30 students from five different schools (OECD 2012, p. 54).

Targeting national minority students' school achievement in a linguistic based, comparative way inputs at least two conditions: 1. the whole analysis will concentrate only on native students; 2. it would take into account only countries with at least two test languages. Therefore in the framework of this analysis national minority students are students without an immigrant background, and who have the possibility to learn either in their mother tongue or in the country's majority (official) language(s).

If one compares the number of languages spoken at home and number of languages of the test in PISA it could be easily observed that education all

over the world is a product of (nation)state policies which imply a certain selectivity. In the PISA 2012 database, for example, there are indicated 103 different languages, and another 62 languages are also coded as being 'other language' for a certain country. So in this international education survey there are 165 'mother languages' categories[6] relative (against) to 48 test languages. In simplifying, one can say that only a small part of the languages spoken at home have the opportunity to function as a medium of instruction across PISA countries.

According to the PISA 2012 student database in 25 countries there is more than one language of instruction (test language). The majority of these countries are from Europe (18 countries – including Kazakhstan), the others are from Asia (Hong Kong – China, Macao – China, Malaysia), from the Middle East (Qatar, the United Arab Emirates, Israel), and from the Americas (Canada). European countries include states from Central and South-Eastern Europe (Slovakia, Romania, Serbia, Montenegro), Baltic states (Estonia, Lithuania, Latvia), and Western European countries mostly characterized with a certain regional linguistic-administrative structure (Belgium, Luxemburg, Spain, Italy, Switzerland, Ireland, the United Kingdom, Finland). Canada also has regional, language-based traditions. Asian and Arab countries with more than one language of testing are mostly post-colonial states, where English as a medium of instruction still plays an important role in education (Hong-Kong, Macao-China, Malaysia, the United Arab Emirates, and Qatar). Israel also has a multilingual education system as it is possible to learn in either Hebrew and Arabic, as well. (see *Annexes Table A1, A2.* for descriptive statistics. Due to methodological considerations some countries will not appear in analysis below.)

In Figs. 1 and 2. there are mathematics competencies broken down by country and language of the test. Red bars indicate students' performance in the majority languages (for all tests taken in the official language). In the case of Belgium, Switzerland, Luxemburg, and Canada there is more than one official language. In some countries (Estonia, Finland, Great Britain, Lithuania, Montenegro, Slovakia, Israel, Hong-Kong) competencies produced in the official (majority) language of the state are higher than in minority languages. In countries like Spain, Ireland, Italy, Kazahstan, the United Arab Emirates, Malaysia, Macao-China, competencies produced in the minority language(s) are higher than those recorded in the official (majority) language.

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[6] Of course there are many more languages spoken at home as PISA variable codification system certainly unites different languages under the same category.

Figure 1. Mathematics competencies broken down by country and language of the test (Europe)
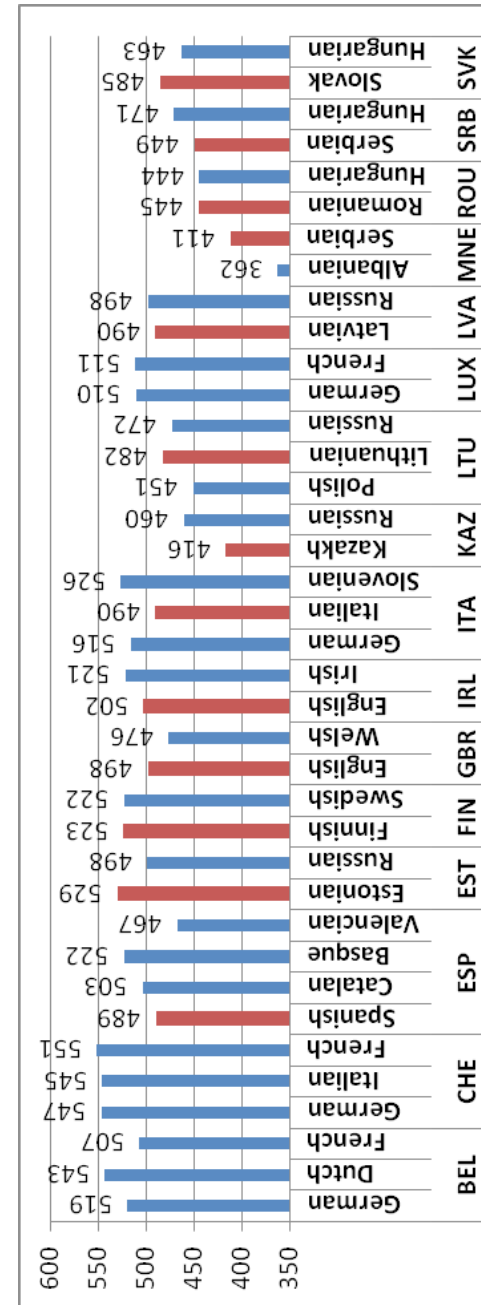
Figure 2. Mathematics competencies broken down by country and language of the test (Asia and Canada)
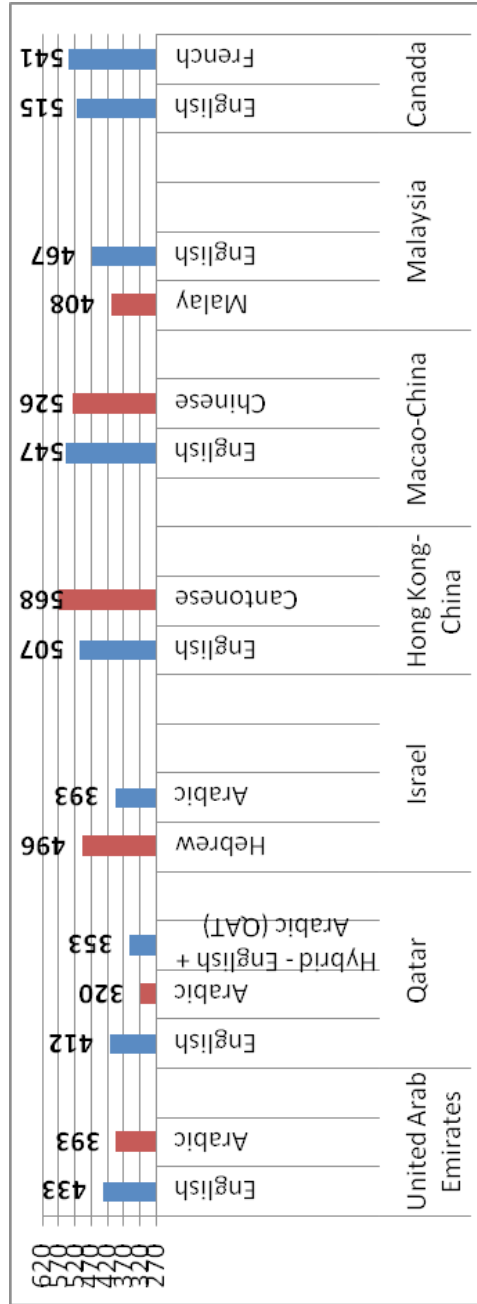
In almost all countries with at least two test languages, differences on mean scores based on language of the test are significant. Exceptions in this regard are Switzerland, Finland, Luxemburg, Romania, Serbia and Slovakia. In Lithuania there are no significant differences between Latvian and Russian language schools, however the smaller Polish language school system presents a significantly lower competency mean on mathematics compared with the mainstream Lithuanian language schools.

Differences on mean score can be explained by differences in students' family backgrounds. Among the countries selected for presentation in this analysis the biggest effect of student background could be identified (see Table A3) in the case of Hungarian language minority schools in Slovakia and Serbia (41 and 28 percent, respectively, on school competencies can be explained by ESCS), and in the case of English language schools in Hong Kong (27 percent). At the same time one can observe that in English language schools from Macao-China, in Arabic language schools from Qatar, and in Basque and Valencian language schools in Spain the effect of family background is almost non-existent (1-3 percent).

In order to filter out this family background effect I have calculated school performances by accounting for students' index of economic, social, and cultural status (ESCS). Significant differences on mean score still remain in almost all countries. In Finland, a country where there were no significant differences, after adjusting for ESCS differences between test languages have become significant. In Ireland and Macao-China one can observe the inverse phenomenon, namely that the crude differences have disappeared after taking into account the role of family background. In summary, one can state that in countries where there exists more than one language of instruction there is a chance to have different school competencies based on these languages.

As I have detailed above, using the ESCS index, and its square, make it possible to assess the level of equity of a school system. Therefore in selected countries I have calculated the index of curvilinearity for each test language (see Annexes, Table A3). Only in a few countries is this index significant, and it is possible to observe that only in two countries does it have a negative value: in the case of Italian language schools in Italy and in official (Slovak) language schools of Slovakia. One can see significant positive values in the case of Russian language schools in Estonia, Arabic in Israel, Chinese in Macao, English in Malaysia, Serbian in Montenegro, Hungarian in Serbia, Italian in Slovenia, and Finnish in Finland. It is interesting that the majority of positive indexes of curvilinearity (i.e. non equitable education) stem from minority education, and one could identify significantly

equitable education services only for dominant language school systems (in Slovakia and Italy). And it is also observable that where majority language education is significantly non-equitable (the index has a positive value) the mean of mathematics performance is quite high (Finland, Macao-China). One can also assume that education in minority languages tends to be more selective than majority language schools; however, this feature does not correlate positively with minority language school competencies. All these characteristics indicate that equity and school performance are not necessary mutually presupposed.

To this point I have compared performances only on a test languages basis. However, as I described earlier (see Tables 2 and 3) one could identify different forms of minority related education as it is not necessary that each pupil learn in their mother tongue (or language spoken at home). Here the crucial question from the minority point of view is: Is education in mother tongue much more effective or not than education in the majority language? In a few countries (such as the United Arab Emirates, Finland, Spain, Israel, Kazakhstan, Malaysia, Qatar) this question is relevant for the majority perspective as well, because there are enough majority students involved in (one of the) minority language schools for it to have a significant bearing on this group (students in the AB group that is). Also there are some countries where it is difficult, or only in regional terms, to define minority and majority students (e.g. Luxemburg, Canada).

According to data from *Table A4* one can observe that in Arab countries, speakers of non-Arabic languages (mainly English speakers) involved in Arab language schools significantly usually underperform not only by the country average but also underperform compared to majority students whose education is in the English (minority) language. In two Baltic states (Lithuania, Latvia) there are no significant differences between majority (Type AA) and minority (Type BB) mother tongue education, indeed in Estonia there seems to be a significant structural difference between Estonian majority and Russian minority education – in favour of the majority students. The same situation can be seen in Israel where majority students in majority language schools outperform Arabic language schools. Moreover, here students who use English language at home and are involved in Hebrew language schools outperform every other kind of students. In Central and South-Eastern Europe minority students usually underperform or

have no significantly higher mean scores than majority (in majority language) students. In this region it is striking that Albanian language students have significantly lower competencies than their peers in majority language schools. Also it is an important signal that Romani speaking students in Slovakia have very low school competencies.[7] In Central Europe one can also observe that minority students participating in majority language education is usually associated with low school performance (e.g. Hungarian minority in Romanian language schools).

In Western Europe the picture is also very complex, there is no universal trend regarding minority education. Despite my analysis focusing on native students, in Belgium, for example, it is striking that (non-first- and second-generation) students speaking in Turkish at home have a very low performance in Dutch language schools. At the same time students with French language background in German language schools outperform in mathematics those French students who study in their mother tongue. This is not true for the other two competencies. In Switzerland, students who use Italian in their home are significantly weaker in German language schools than any others who learn in any kind of education in Switzerland. The PISA data from Spain indicate that for different ethnic minorities (mainly Basques, Catalans) using Spanish language is more likely to result in lower performances than those in mother tongue education. Moreover, pupils who use Spanish in their home and are involved in Basque language schools have significantly higher results than Spanish students who learn in their mother tongue. In the United Kingdom students who choose Welsh language schools significantly underperform those who study in English. In Ireland an opposite trend can be describe: students involved in Irish language schools outperform the mainstream education schools in English.

Finally, if one compares the two main, English and French, mother tongue education forms (type BB) in Canada one would say that the French group outperforms the English one. It is interesting in this multicultural country that – at least in mathematics – French and English students have almost the same achievement level regardless of their language of study.

Following the formula I've described above in the methodological part of my paper I have calculated for selected countries the mother tongue effect indexes (MTE) for each language spoken at home (*Table A5*). The indexes of MTE are calculated for each competency area; however, below I

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[7]   Despite the high number of Roma students in Europe, in the PISA assessment it is only possible to identify in Slovakia a sufficient number of Romani speaking students.

will concentrate only on reading competencies in the case of national minorities. The reason for this is that in the relevant literature on the one hand, there is an emphasis on the role of mother tongue education in reading and text comprehension, and to analyse these phenomena at this point is elaborated from a minority perspective. It means that choosing between different languages as a medium of education forces minorities to grapple with more challenges than for students who natively speak the mainstream (state) language.

Among well-documented national minorities[8], Russian minorities significantly would gain from their mother tongue education in Kazakhstan, Latvia, Lithuania, the Hungarian minority in Romania, and Basques in Spain. In post-colonial countries the 'former colonisers English minority' students gain advantages in United Arab Emirates, Qatar, Malaysia. In other countries different minority groups have no significant advantages in reading competencies. It is interesting that in some countries (Finland, Hong Kong, Israel, Serbia, Slovakia, United Kingdom) majority students benefit from their mother tongue education, however there are three countries (Kazakhstan, Spain, Sweden) where linguistic majority students lose out in terms of reading competencies if they participate in their mother tongue education. In multiethnic and multilingual states one can also observe that it is not necessarily true that all kinds of mother tongue education result in significantly higher school achievement. In Belgium, only the Dutch mother tongue education, in Canada the English mother tongue education, and in Switzerland the French and Italian mother tongue education seems to be much more effective than learning in other languages – after adjusting for the ESCS indexes.

Conclusions

In my paper I have tried to provide a quasi general picture about minority education in the world. During this approach I have used the PISA 2012 international student database because it offers some linguistic and other background informations neccessary for identification of native minority students. Thus all my analyses have concentrated on native minority students' school competencies, and I have compared either minority and majority students' achievement, or minority students who learn in their mother tongue and students who do not. In some multicultural states it was

also possible to make comparison based on school (test) languages.

In almost all countries with at least 2 test languages gaps on mean scores based on language of the test are significant (exceptions in this regard are Switzerland, Finland, Luxemburg, Romania, Serbia, Slovakia.) What is striking in this regard is that differences still remain on almost all countries even after accounting for students' index of economic, social, and cultural status (ESCS). The results indicate that in selected countries there exist a real educational inequality based on language of instruction. One can conclude that in countries where exist more than one language of instruction there is an odd to have different school competencies based on these languages.

From ethnic-national minority perspective education on mother tongue usually is an important question because it is believed that it is related to surviving of minority community as such. Therefore I have tried to map out whether it poses a real gain for minority students, or not. To answer this question I have created an index of mother tongue effect (MTE), and for eliminating the effect of family background it was calculated after adjusting by ESCS. Results in this respect show that only in some European countries (Latvia, Lithuania, Romania, Spain, Kazahstan) and in some Arab countries (national) minorities have a statistically significant possibility to gain from their mother tongue education. Also it was interesting that in some countries (Finland, Hong Kong, Israel, Serbia, Slovakia, United Kingdom) while majority students benefit from their mother tongue education, minorites living there have not such a possibility. However I have identified three countries (Kazakhstan, Spain, Sweden) where linguistic majority students will lose in terms of reading competencies if they participate in their mother tongue education.

Interpreting these results I can assume that mother tongue education does not unequivocally present an advantages in all countries. However, one should take into account that gaps in school competencies should be related to the prestige, history, tradition, and to the legal status of mother tongue education. In Middle East countries for example it is interesting that mean scores on competencies are lower in Arab language than in English language. As I have presented earlier mother tongue effect in the case of Russian minorities in some countries tend to be significantly positive. These two kinds of gaps certainly could be explained by local history, and by the

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8   It is worthwhile to mention that MTE index is calculated after taking into account the economic bacground of students' family, therefor differences mentioned in this part of my paper sometimes are different than in Table A4.

social prestiges of these languages (both Russian and English languages are a kind of former 'imperial' languages). In an international perspective it is also striking that Romani speakers have not only very low school competencies but they have no possibility to use their mother tongue in education. Using PISA data and methodology for exploring school equity I have also shown that education in minority languages tend to be more selective than majority language schools, however this feature doesn't correlate positively with minorities' language school competencies. All these data emphasize that inequalities can be grasped not only at interethnic level, but in intraethnic terms, as well.

One of the principal aims of this paper was to demonstrate that PISA can be used for analysing national minorities education. Despite the fact that there are some methodological constraints as national ethnic minority belonging is not explored in a detailed way in PISA, I hope my analysis contributes to cease what Myers says,[9] the silence around education of native (ethnic, national) minority students.

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[9]   „The experiment of immigrants and ethnic minorities in post-war Europe represents a significant silence in the history of education in Europe" (Myers 2009, p. 801).

ANNEXES

Table A1. Countries with at least two test languages - Europe

		CNT	TestLANG	N	Weighted N	%	% SE	MATH Mean	Mean SE
1	BEL	Belgium	German	577	625	0,6	0,02	519	2,73
		Belgium	Dutch	4286	58271	59,9	0,88	543	3,24
		Belgium	French	2290	38329	39,4	0,88	507	3,14
2	CHE	Switzerland	German	4864	43537	73,9	1,18	547	3,65
		Switzerland	Italian	326	2493	4,2	0,18	545	14,81
		Switzerland	French	3055	12903	21,9	1,17	551	4,18
3	ESP	Spain	Spanish	19094	265919	80,6	0,67	489	1,72
		Spain	Catalan	2046	51725	15,7	0,50	503	4,08
		Spain	Basque	1123	3699	1,1	0,09	522	3,24
		Spain	Valencian	94	8445	2,6	0,51	467	13,21
4	EST	Estonia	Estonian	3578	8758	83,8	0,60	529	1,96
		Estonia	Russian	715	1696	16,2	0,60	498	6,13
5	FIN	Finland	Finnish	5937	53510	93,6	0,15	523	1,99
		Finland	Swedish	1469	3647	6,4	0,15	522	2,16
6	GBR	United Kingdom	English	10944	580717	99,3	0,13	498	3,05
		United Kingdom	Welsh	411	3863	0,7	0,13	476	5,03
7	IRL	Ireland	English	4353	46836	98,6	0,73	502	2,33
		Ireland	Irish	69	656	1,4	0,73	521	7,99
8	ITA	Italy	German	1495	3915	0,8	0,02	516	2,45
		Italy	Italian	26699	465839	99,1	0,07	490	2,07
		Italy	Slovenian	57	491	0,1	0,06	526	8,04
9	KAZ	Kazakhstan	Kazakh	2811	106082	61,4	1,89	416	3,38
		Kazakhstan	Russian	2085	66829	38,6	1,89	460	4,45
10	LTU	Lithuania	Polish	180	1539	4,8	1,07	451	13,50
		Lithuania	Lithuanian	4098	29096	91,3	1,52	482	3,07
		Lithuania	Russian	180	1250	3,9	1,08	472	9,15
11	LUX	Luxembourg	German	2518	2623	89,8	0,48	510	1,81

#	Code	Country	Language	N	Weighted N	%	% SE	MATH mean	SE
		Luxembourg	English	8	9	0,3	0,09	561	22,44
		Luxembourg	French	275	288	9,9	0,49	511	5,74
12	LVA	Latvia	Latvian	3128	12274	81,0	2,24	490	3,22
		Latvia	Russian	904	2880	19,0		498	4,75
13	MNE	Montenegro	Albanian	124	254	3,6	0,10	362	6,01
		Montenegro	Serbian of a yekavian variant or Montenegrin	4199	6801	96,4	0,10	411	1,18
14	ROU	Romania	Romanian	4776	131872	94,9	0,68	445	3,72
		Romania	Hungarian	227	7033	5,1	0,68	444	20,94
15	SRB	Serbia	Serbian	4056	58834	98,6	0,56	449	3,44
		Serbia	Hungarian	54	816	1,4	0,56	471	32,17
16	SVK	Slovak Republic	Slovak	4242	49436	93,1	1,65	485	3,75
		Slovak Republic	Hungarian	313	3686	6,9	1,65	463	24,26
17	SVN	Slovenia	Italian	15	20	0,1	0,02	510	20,58
		Slovenia	Slovenian	5275	16471	99,9	0,02	506	1,14
18	SWE	Sweden	English	21	402	0,5	0,32	578	25,62
		Sweden	Swedish	3909	78234	99,5	0,32	490	2,25
		Qatar	Arabic	3672	3679	74	0,33	320	1,27
		Qatar	Hybrid - English + Arabic (QAT)	757	758	15	0,29	353	2,62
		ASIA							
1	HKG	Hong Kong-China	English	38	717	2	1,06	507	31,81
		Hong Kong-China	Cantonese	2826	42866	98	1,06	568	3,81
2	MAC	Macao-China	Portuguese	9	9	0	0,16	498	30,10
		Macao-China	English	348	351	19	0,65	547	4,53
		Macao-China	Chinese	1477	1486	81	0,65	526	2,34
3	MYS	Malaysia	Malay	3739	310237	75	2,82	408	2,83
		Malaysia	English	1265	105128	25	2,82	467	7,52
		AMERICA							
1	CAN	Canada	English	12513	172909	73	0,85	515	2,07
		Canada	French	4499	63692	27	0,85	541	3,06

Table A2. Countries with at least two test languages – Middle East countries, Asia, Canada

		CNT	TestLANG	N	Weighted N	%	% SE	MATH mean	SE
		MIDDLE EAST COUNTRIES							
1	UAE	United Arab Emirates	English	1127	3167	18	2,03	433	6,65
		United Arab Emirates	Arabic	3989	14567	82	2,03	393	2,60
3	QAT	Qatar	English	546	549	11	0,30	412	3,85

Table A3. Unadjusted and adjusted by the ESCS mathematic performance by test language, and index of curvilienarity

Country	TestLANG	Unadjusted mathematics mean score		Mathematics performance adjusted by the mean ESCS[1]		Strength of the relationship between mathematics performance and ESCS[2]		Slope of the socio-economic gradient for mathematics[2]		Index of curvilinearity[2]	
		Mean score	S.E.	Mean score	S.E.	Percentage of explained variance in mathematics performance	SE	Score-point difference in mathematics associated with one unit increase in ESCS	S.E.	Score-point difference in mathematics associated with one-unit increase in ESCS squared	S.E.
Belgium	Dutch	543	(3,24)	533	(2,58)	17,6	(1,48)	48	(2,26)	-0,52	(2,02)
Belgium	French	507	(3,14)	497	(2,86)	20,3	(2,01)	48	(2,79)	1,24	(2,46)
Belgium	German	519	(2,73)	515	(3,04)	4,7	(1,87)	22	(4,37)	1,50	(4,38)
Canada	English	515	(2,07)	500	(1,81)	9,6	(0,93)	31	(1,56)	2,24	(1,25)
Canada	French	541	(3,06)	528	(2,94)	12,1	(1,69)	37	(2,89)	0,25	(2,10)
Estonia	Estonian	529	(1,96)	525	(1,86)	9,7	(1,09)	30	(1,98)	3,45	(2,00)
Estonia	Russian	498	(6,13)	498	(5,69)	4,0	(1,90)	21	(5,00)	9,32	(4,39)
Finland	Finnish	523	(1,99)	512	(2,01)	8,2	(0,91)	31	(1,89)	4,76	(2,42)
Finland	Swedish	522	(2,16)	503	(2,87)	7,7	(1,30)	31	(2,80)	-1,92	(3,57)
Hong Kong-China	Cantonese	568	(3,81)	586	(3,48)	9,7	(1,79)	31	(2,98)	2,84	(1,95)
Hong Kong-China	English	507	(31,81)	495	(15,66)	26,5	(12,97)	64	(9,23)	5,04	(22,96)
Ireland	English	502	(2,33)	498	(1,96)	15,4	(1,34)	39	(1,92)	0,54	(1,59)
Ireland	Irish	521	(7,99)	510	(13,00)	5,9	(7,79)	22	(15,13)	-23,81	(22,44)
Israel	Arabic	393	(6,39)	398	(6,17)	6,5	(2,03)	22	(4,15)	3,96	(1,87)
Israel	Hebrew	496	(5,45)	477	(4,55)	16,5	(1,57)	55	(2,94)	0,72	(2,89)
Italy	German	516	(2,45)	518	(2,66)	5,1	(1,25)	24	(2,92)	-2,33	(2,71)
Italy	Italian	490	(2,07)	490	(1,86)	9,6	(0,68)	29	(1,24)	-3,35	(0,73)
Italy	Slovenian	526	(8,04)	524	(5,04)	0,5	(2,36)	5	(10,98)	-24,23	(21,89)
Kazakhstan	Kazakh	416	(3,38)	426	(3,68)	7,4	(2,07)	24	(3,35)	4,83	(2,66)
Kazakhstan	Russian	460	(4,45)	463	(4,37)	4,3	(1,99)	21	(5,21)	-0,76	(3,94)
Latvia	Latvian	490	(3,22)	501	(2,84)	15,2	(2,00)	35	(2,31)	-0,34	(2,07)
Latvia	Russian	498	(4,75)	503	(4,26)	14,4	(3,00)	36	(4,03)	-5,28	(3,64)
Lithuania	Lithuanian	482	(3,07)	487	(2,55)	14,7	(1,30)	37	(1,78)	-1,25	(1,64)
Lithuania	Polish	451	(13,50)	457	(13,39)	9,3	(3,61)	31	(5,93)	-6,52	(4,59)
Lithuania	Russian	472	(9,15)	471	(8,88)	4,7	(4,26)	20	(10,47)	-0,81	(8,08)
Luxembourg		561	(22,44)	505	(58,80)	16,5	(24,71)	30	(29,13)	31,93	(73,30)
Luxembourg	French	511	(5,74)	489	(5,85)	17,9	(4,63)	43	(5,89)	-4,25	(6,55)

Luxembourg	German	510	(1,81)	494	(2,14)	11,4	(1,37)	36	(2,17)	-3,13	(2,06)
Macao-China	Chinese	526	(2,34)	545	(2,74)	5,1	(0,98)	24	(2,28)	4,51	(2,38)
Macao-China	English	547	(4,53)	549	(4,79)	0,6	(0,97)	9	(6,33)	3,52	(5,26)
Macao-China	Portuguese			523	(44,70)	5,3	(13,77)	-27	(40,78)	-7,13	(63,77)
Malaysia	Malay	408	(2,83)	426	(3,80)	15,1	(3,53)	38	(4,76)	2,38	(2,63)
Malaysia	English	467	(7,52)	475	(6,25)	7,7	(1,51)	21	(2,20)	3,46	(1,26)
Montenegro	Albanian	362	(6,01)	368	(6,65)	5,3	(4,42)	14	(5,93)	-1,07	(5,70)
Montenegro	Serbian of a yekavian variant or Montenegrin	411	(1,18)	420	(1,28)	13,1	(0,95)	34	(1,36)	3,64	(1,60)
Qatar	Arabic	320	(1,27)	319	(1,35)	0,6	(0,35)	5	(1,42)	0,66	(0,83)
Qatar	English	412	(3,85)	372	(5,50)	14,2	(2,74)	44	(4,67)	-2,11	(3,57)
Qatar	Hybrid - English + Arabic (QAT)	353	(2,62)	334	(3,77)	4,8	(1,46)	21	(3,48)	-1,79	(3,71)
Romania	Hungarian	444	(20,94)	459	(18,12)	17,7	(9,18)	35	(12,09)	11,06	(6,58)
Romania	Romanian	445	(3,72)	463	(3,57)	19,5	(2,46)	38	(2,98)	5,75	(0,96)
Serbia	Serbian	449	(3,44)	459	(3,25)	27,6	(13,14)	50	(12,67)	-8,41	(4,75)
Serbia	Hungarian	471	(32,17)	497	(28,16)	11,8	(1,43)	34	(2,43)	3,40	(1,60)

Slovak Republic	Hungarian	463	(24,26)	484	(15,18)	40,6	(4,36)	75	(5,46)	2,71	(6,05)
Slovak Republic	Slovak	485	(3,75)	494	(2,84)	23,4	(2,27)	52	(3,09)	-4,37	(2,13)
Spain	Basque	522	(3,24)	522	(2,95)	2,8	(1,03)	14	(2,68)	-1,31	(3,13)
Spain	Catalan	503	(4,08)	505	(3,60)	13,1	(2,45)	30	(2,98)	1,17	(2,14)
Spain	Spanish	489	(1,72)	494	(1,55)	15,9	(1,18)	33	(1,20)	-0,52	(0,70)
Spain	Valencian	467	(13,21)	476	(16,52)	2,3	(2,07)	15	(7,04)	3,20	(11,01)
Switzerland	French	551	(4,18)	536	(4,82)	8,6	(1,80)	33	(3,30)	0,14	(5,06)
Switzerland	German	547	(3,65)	537	(3,25)	8,9	(1,35)	34	(2,77)	0,88	(2,69)
Switzerland	Italian	545	(14,81)	535	(12,91)	4,3	(1,69)	23	(6,06)	9,08	(7,04)
United Arab Emirates	English	433	(6,65)	414	(4,75)	4,7	(2,00)	17	(2,12)	-1,61	(3,18)
United Arab Emirates	Arabic	393	(2,60)	390	(2,33)	4,7	(1,00)	23	(4,75)	2,91	(1,15)
United Kingdom	English	498	(3,05)	488	(2,46)	12,4	(1,28)	41	(2,36)	2,94	(1,67)
United Kingdom	Welsh	476	(5,03)	462	(5,84)	10,1	(2,58)	35	(4,90)	6,26	(6,10)

30 A. Papp Z.

Hidden ethnic inequalities. A possible global educational exploration using PISA 31

Table A4. School performances by language at home and language of the test

	minority language (or mother tongue) Education – Type BB*
	minority in mainstream education – Type BA
	majority in minority lg. Education – Type AB
	majority (mainstream) education – Type BA

*see details in Table 2.

Country	Language at home	Language of the test	n	Mathematics		Reading		Science	
				mean	SE	mean	SE	mean	SE
United Arab Emirates	English	English	90	444	14,44	450	16,53	458	13,78
United Arab Emirates	English	Arabic	98	382	10,29	390	12,55	401	11,45
United Arab Emirates	Arabic	English	935	434	7,33	428	5,75	430	8,94
United Arab Emirates	Arabic	Arabic	3662	394	2,64	409	2,78	413	2,90
United Arab Emirates	Another language (QRE)	English	58	432	16,55	415	20,25	429	20,59
United Arab Emirates	Another language (QRE)	Arabic	73	358	11,58	370	14,09	369	12,64
Belgium	German	German	393	520	3,64	513	4,08	517	4,01
Belgium	Dutch	Dutch	3131	554	3,19	540	2,98	542	2,98
Belgium	Turkish	Dutch	42	440	19,21	428	19,09	411	15,83
Belgium	French	German	36	534	15,57	508	13,62	528	12,94
Belgium	French	Dutch	136	508	14,91	506	14,90	499	14,39
Belgium	French	French	2072	511	3,06	516	4,12	506	3,30
Belgium	Western European languages	Dutch	38	477	17,56	483	16,21	483	16,43
Belgium	Flemish dialect (BEL)	Dutch	695	531	6,09	517	5,64	519	6,27
Belgium	German dialect (BEL)	German	83	549	7,92	520	9,21	533	8,47
Belgium	Another language (BEL)	Dutch	67	442	13,06	434	13,68	434	13,80
Canada	English	English	11845	516	2,00	529	2,20	537	2,02
Canada	English	French	1148	518	6,92	502	5,30	507	6,21
Canada	French	English	319	557	17,13	547	17,11	541	11,78
Canada	French	French	3181	545	3,15	527	3,60	525	3,18
Canada	Another language (CAN)	English	99	469	11,67	470	15,38	484	12,49
Switzerland	Italian	German	49	487	16,59	461	14,42	459	16,85
Switzerland	Italian	Italian	205	544	17,19	530	10,49	536	17,44
Switzerland	French	German	49	536	20,85	508	20,06	512	19,09
Switzerland	French	French	2809	554	4,26	539	4,03	534	3,80
Switzerland	Swiss Italian	Italian	61	577	10,39	546	15,93	555	11,26
Switzerland	Swiss German	German	4448	550	3,91	523	3,16	538	3,29

Country	Language	Language	N						
Switzerland	Swiss German	French	97	531	12,68	521	12,88	513	11,82
Spain	Spanish	Spanish	17615	491	1,85	494	1,87	506	1,94
Spain	Spanish	Catalan	962	490	4,28	502	4,68	492	3,74
Spain	Spanish	Basque	282	510	7,88	495	6,88	484	6,72
Spain	Catalan	Spanish	180	496	18,39	494	15,80	513	16,64
Spain	Catalan	Catalan	982	520	4,57	522	4,63	516	4,40
Spain	Basque	Spanish	252	502	6,42	493	7,38	499	7,01
Spain	Basque	Basque	815	528	3,75	508	4,53	516	3,67
Spain	Galician	Spanish	538	476	4,83	476	6,81	495	5,96
Spain	Valencian	Spanish	86	486	5,99	485	15,44	506	9,66
Spain	Valencian	Valencian	61	480	13,27	472	15,75	478	14,48
Spain	Another language (ESP)	Spanish	135	446	18,78	446	21,63	450	20,23
Spain	Another language (ESP)	Catalan	35	479	26,19	472	23,51	482	27,30
Estonia	Estonian	Estonian	3362	531	2,00	528	2,28	554	2,12
Estonia	Russian	Estonian	162	508	5,87	502	6,99	519	6,15
Estonia	Russian	Russian	703	499	6,20	492	4,68	516	5,37
Finland	Finnish	Finnish	5760	524	2,01	531	2,41	554	2,26
Finland	Finnish	Swedish	267	528	5,82	515	5,75	525	5,98
Finland	Swedish	Swedish	1162	522	2,75	509	3,24	520	3,13
Finland	Russian	Finnish	36	482	12,92	496	22,40	512	17,02
Finland	Another language (FIN)	Finnish	74	513	34,13	507	34,20	525	36,52
United Kingdom	English	English	10675	498	3,07	504	3,41	521	3,35
United Kingdom	English	Welsh	264	472	5,13	467	6,12	470	6,46
United Kingdom	Welsh	English	47	472	11,06	473	8,95	489	10,10
United Kingdom	Welsh	Welsh	131	492	8,44	500	10,36	502	9,15
United Kingdom	Another language (QUK)	English	47	484	20,73	486	19,38	485	19,91
Ireland	English	English	4270	503	2,34	526	2,60	524	2,50
Ireland	English	Irish	52	525	8,55	551	6,60	528	4,35
Israel	English	Hebrew	44	537	16,04	549	18,77	537	16,40
Israel	Hebrew	Hebrew	2721	497	5,33	519	5,73	500	5,59
Israel	Hebrew	Arabic	52	382	14,46	389	16,99	379	16,33
Israel	Arabic	Arabic	927	396	6,24	413	5,57	404	6,62
Italy	German	Italian	69	474	14,81	478	15,22	489	14,38
Italy	Italian	German	36	515	15,83	512	17,30	545	13,25
Italy	Italian	Italian	21778	499	2,10	507	1,90	508	1,88
Italy	Another official language (ITA)	German	89	522	11,60	499	10,08	515	12,45
Italy	Another official language (ITA)	Italian	62	493	23,16	511	23,49	501	24,40
Italy	A dialect (ITA)	German	1268	519	2,58	511	2,75	537	2,80
Italy	A dialect (ITA)	Italian	2409	455	3,32	449	3,48	457	3,56
Italy	Another EU language (ITA)	Italian	48	504	21,68	507	18,76	500	28,04

Country	Language 1	Language 2	N						
Italy	Another language (ITA)	Italian	70	467	16,18	445	20,29	461	17,85
Kazakhstan	Kazakh	Kazakh	2713	417	3,29	373	3,20	403	3,56
Kazakhstan	Kazakh	Russian	395	456	8,17	418	6,71	454	7,37
Kazakhstan	Russian	Kazakh	57	429	10,95	387	8,68	417	8,43
Kazakhstan	Russian	Russian	1459	462	4,69	438	3,88	471	3,85
Kazakhstan	Another language (KAZ)	Kazakh	41	354	14,36	294	15,11	345	13,29
Kazakhstan	Another language (KAZ)	Russian	229	449	13,01	411	11,13	443	9,27
Lithuania	Polish	Polish	117	479	11,75	446	11,88	457	11,61
Lithuania	Lithuanian	Lithuanian	3904	484	3,03	485	2,77	502	2,89
Lithuania	Russian	Polish	33	408	17,38	368	17,98	394	17,54
Lithuania	Russian	Lithuanian	52	463	17,87	466	16,62	483	17,27
Lithuania	Russian	Russian	172	474	10,11	481	9,12	496	10,36
Luxembourg	German	German	40	546	14,20	561	15,18	558	13,08
Luxembourg	French	French	99	519	8,68	530	9,91	521	9,26
Luxembourg	Luxembourgish	German	2232	515	1,87	516	2,13	526	1,95
Luxembourg	Luxembourgish	French	100	543	9,12	550	10,50	548	10,87
Macao-China	Cantonese	English	304	555	4,74	479	4,89	505	4,66
Macao-China	Cantonese	Chinese	1379	528	2,44	503	2,13	516	2,00
Montenegro	Albanian	Albanian	121	361	6,28	378	7,89	360	8,07
Montenegro	Albanian	Serbian of a yekavian variant or Montenegrin	35	386	17,00	390	15,62	378	18,55
Montenegro	Serbian of a yekavian variant or Montenegrin	Serbian of a yekavian variant or Montenegrin	4164	412	1,20	426	1,36	412	1,18
Malaysia	Malay	Malay	2729	405	3,14	399	3,31	415	3,10
Malaysia	Malay	English	499	455	9,62	413	10,65	441	8,31
Malaysia	English	Malay	133	432	10,49	404	7,88	421	8,91
Malaysia	English	English	151	496	11,28	469	11,59	497	10,36
Malaysia	Another language (MYS)	Malay	844	413	4,48	379	5,56	401	5,03
Malaysia	Another language (MYS)	English	604	470	10,28	409	10,95	444	9,64
Qatar	English	English	63	426	12,12	442	14,93	443	13,57
Qatar	English	Arabic	76	296	7,61	290	13,52	294	13,79
Qatar	Arabic	English	367	426	5,31	425	5,58	430	5,66
Qatar	Arabic	Arabic Hybrid	3321	321	1,39	329	1,39	333	1,22
Qatar	Arabic	- English + Arabic (QAT)	672	355	2,83	407	3,27	345	3,69
Qatar	Another language (QAT)	English	66	351	9,05	342	15,04	351	9,98
Qatar	Another language (QAT)	Arabic	558	328	11,21	326	12,95	330	11,92

Country	Language	Language (group)	N						
Romania	Romanian	Romanian	4693	445	3,72	439	3,95	439	3,18
Romania	Hungarian	Romanian	43	400	18,65	369	19,06	387	16,13
Romania	Hungarian	Hungarian	222	445	20,72	456	20,19	466	17,87
Serbia	Slovak	Serbian	50	461	12,07	456	17,80	453	10,52
Serbia	Serbian	Serbian	3886	449	3,51	447	3,61	445	3,49
Serbia	Hungarian	Serbian	47	455	12,28	456	16,13	468	12,48
Serbia	Hungarian	Hungarian	42	485	34,68	494	36,70	488	32,02
Serbia	Another language (SRB)	Serbian	32	429	17,76	397	20,40	421	20,60
Slovak Republic	Slovak	Slovak	3864	494	3,61	477	4,08	484	3,60
Slovak Republic	Romani	Slovak	174	344	11,28	291	11,26	310	10,80
Slovak Republic	Hungarian	Slovak	71	455	28,96	417	42,26	431	39,25
Slovak Republic	Hungarian	Hungarian	278	467	25,64	450	29,32	468	26,62
Slovak Republic	Another language (SVK)	Slovak	40	475	14,17	447	19,80	454	16,83
Slovenia	Slovenian	Slovenian	5115	508	1,12	488	1,23	522	1,33
Slovenia	Other former Yugoslavian languages (SVN)	Slovenian	30	430	15,22	422	18,91	448	22,50
Latvia	Latvian	Latvian	2715	493	3,51	490	3,43	507	3,38
Latvia	Russian	Latvian	312	474	6,80	456	8,63	473	5,87
Latvia	Russian	Russian	839	499	4,95	509	4,86	509	5,22

Table A5. Mother tongue effects (MTE) by country and by language spoken at home

CNT	LANGN	READING	MATHEMATICS	SCIENCE
Belgium	Dutch	**72,24**	60,37	**60,81**
Belgium	French	14,87	8,05	11,38
Belgium	German	29,25	8,42	31,64
Canada	English	**27,50**	-1,69	**31,01**
Canada	French	-8,80	0,03	-6,31
Estonia	Estonian	46,93	18,27	**56,99**
Estonia	Russian	-10,64	-9,01	-2,68
Finland	Finnish	**28,15**	7,57	**40,00**
Finland	Swedish	29,52	43,45	38,09
Hong Kong-China	Cantonese	**36,82**	**45,32**	**49,55**
Hong Kong-China	English	23,53	24,92	-12,42
Israel	Arabic	-43,44	-44,72	-42,60
Israel	Hebrew	**105,32**	**86,37**	**90,93**
Italy	German	-1,64	0,36	-7,91
Italy	Italian	27,77	5,55	10,46
Italy	Slovenian	**87,00**	**90,74**	**66,69**
Kazakhstan	Kazakh	**-34,59**	-30,21	**-41,78**
Kazakhstan	Russian	**58,35**	**38,35**	**60,62**
Latvia	Latvian	-16,76	-3,05	17,56
Latvia	Russian	**39,65**	10,97	**24,82**
Lithuania	Lithuanian	56,71	35,16	60,00
Lithuania	Polish	8,83	32,26	-2,77
Lithuania	Russian	**52,14**	26,40	**43,95**
Luxembourg	English	**119,84**	**74,07**	**121,34**
Luxembourg	French	**62,70**	**51,34**	48,28
Macao-China	Cantonese	**35,83**	-13,56	**22,95**

Macao-China	Chinese dialects or languages (MAC)	**130,63**	46,02	**88,10**
Macao-China	English	96,42	48,89	79,71
Macao-China	Mandarin	-16,74	**-103,77**	-25,59
Macao-China	Portuguese	-28,19	-7,97	31,02
Malaysia	English	**43,86**	**38,76**	**50,15**
Malaysia	Malay	0,70	**-35,08**	-12,45
Montenegro	Albanian	-11,87	-25,26	-18,02
Montenegro	Serbian of a yekavian variant or Montenegrin	46,73	39,69	**74,64**
Qatar	Arabic	**-77,66**	**-52,94**	**-33,28**
Qatar	English	**127,67**	**118,74**	**133,17**
Romania	Hungarian	**71,75**	29,98	**66,23**
Romania	Romanian	-13,10	7,43	-14,41
Serbia	Hungarian	40,87	33,24	22,01
Serbia	Serbian	**28,66**	**30,53**	17,81
Slovak Republic	Hungarian	31,59	11,19	35,64
Slovak Republic	Slovak	**69,60**	**45,28**	**27,89**
Slovenia	Italian	**123,40**	**114,82**	**159,99**
Slovenia	Slovenian	-17,57	-6,84	-33,18
Spain	Basque	**16,05**	**26,97**	**18,77**
Spain	Catalan	23,90	19,50	-0,17
Spain	Spanish	**-10,36**	-3,92	**10,33**
Spain	Valencian	-4,26	5,52	-18,28
Sweden	English	66,33	49,58	63,22
Sweden	Swedish	**-84,01**	**-82,46**	**-90,88**
Switzerland	French	**32,51**	22,92	25,76
Switzerland	German	-74,92	-80,48	-50,50
Switzerland	Italian	**70,40**	**57,66**	**77,44**
Switzerland	Swiss German	4,94	**23,28**	**27,24**

United Arab Emirates	Arabic	-6,07	**-26,79**	-2,74
United Arab Emirates	English	**48,93**	**50,86**	**44,57**
United Kingdom	English	**41,34**	**29,32**	**54,95**
United Kingdom	Welsh	8,98	1,58	-7,19

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Olga Aleksejeva

THE JEWISH MOVEMENT IN THE LATVIAN SSR IN THE 1980s: THE EMERGENCE OF THE JEWISH COMMUNITY

The article "The Jewish Movement in the Latvian SSR in the 1980s: the Emergence of the Jewish Community" includes such topics as formation of the Jewish community in the Latvian SSR and its local aspects, manifestations of the Jewish national movement in the Latvian SSR and its changes, the Soviet time anti-Semitism (anti-Zionism), the Soviet Jews' struggle for the rights to emigrate from the USSR, resistance to the Soviet regime, changes in the self-identity of the Soviet Jews, as well as a topic about the attitude of the Latvian SSR authority towards the Jewish national movement.

Riga (the capital of Latvia) was one of the cities in which the movement of Soviet Jews was established. In the Baltic States, the Latvian SSR in particular, Jews played a significant role in the development of resistance. Latvian Jews and their activities in the post-war period can be evaluated as one of the circumstances, which established significant changes both in the USSR (including the Latvian SSR) and internationally.

It is important to pay more attention to those topics which, during the Soviet time, had the status of "a forbidden theme" or which were discussed in the ideological way of which the Jewish history serves as one of the most notable examples.

After the victory of Israel in The Six-Day War in June, 1967, a significant awakening of national awareness of Jews began. It was characterised by

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