


THE EFFECT OF RUSSIAN LANGUAGE  
IMMERSION ON ACADEMIC ACHIEVEMENT OF  
STUDENTS WHOSE MOTHER TONGUE IS  
AZERBAIJANI

*Azar Abizada & Sevinj Seyidova*





# TABLE OF CONTENTS

- 1 ABOUT THE AUTHORS
  - 2 PURPOSE OF THE RESEARCH
  - 3 LITERATURE REVIEW
  - 4 FINDINGS/DISCUSSION
  - 5 CONCLUSION
- 

# ABOUT THE AUTHORS



## AZAR ABIZADA

---

- PhD in Economics, University of Rochester (USA)
- Associate Professor of Economics, School of Business, ADA University



## SEVINJ SEYIDOVA

---

- Research Fellow of the Institute of Education of the Azerbaijan Republic
- PhD student within the Education Management program at the Baku State University





# THE PURPOSE OF THE RESEARCH

---

... is to understand whether students benefit from Russian language education, and how easy it is for students with different home languages to learn academic content in a second language.

This research, aimed at exploring the long-term effects of Russian language immersion on academic achievement of students whose mother tongue is Azerbaijani.





# RESEARCH QUESTION

---

- (1) What are the long-term effects of Russian language immersion on academic achievement of students whose home language is Azerbaijani?
- (2) How does the effect of Russian language immersion on student achievement changes across the grades and subjects?





# LITERATURE REVIEW

---





# LITERATURE REVIEW

---

- “Second language as the medium of instruction is detrimental to teaching and learning” (MacNamara, 1966)
- “It is important to develop literacy in the mother tongue” (Yazıcı et al., 2010)
- “Learning other subjects through a second language is not always problematic to the learning of those subjects” (Lambert & Tucker, 1972)
- “Access to two languages may accelerate the development of metalinguistic skills” (Vygotsky, 1962)





- Survey
- October and November 2019
- 11 schools in Baku
- Schools with Russian as medium of instruction
- More than 1100 students
- Grade 7 - 671 students
- Grade 10 - 367 students

# METHODOLOGY

---





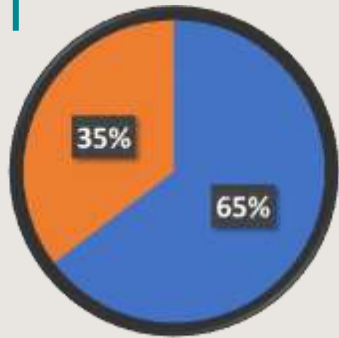


# FINDINGS

---

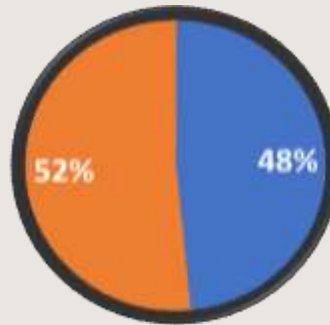


# DEMOGRAPHICS



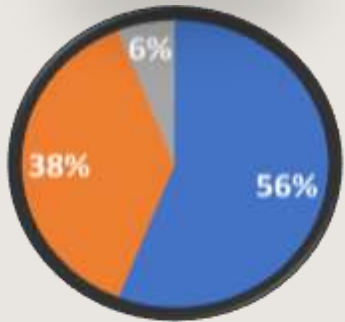
## GRADE

Grade 7 students  
Grade 9 students



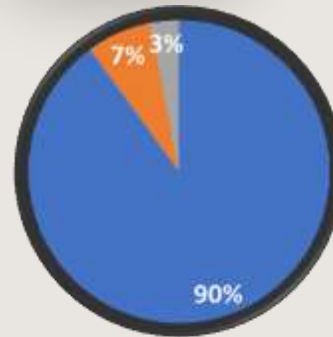
## GENDER

Girls  
Boys



## HOME LANGUAGE

Russian  
Azerbaijani  
Both



## COUNTRY

Azerbaijan  
Russia  
Other



# FINDINGS

*Basic descriptive statistics for 7th and 10th graders in each subject. We separate students into two groups, based on the language spoken at home.*

		7th Grade		10th Grade	
		AZERI	RUSSIAN	AZERI	RUSSIAN
Russian	Mean	4.0982	4.1593	4.2770	4.2040
	Var	0.5049	0.4814	0.4329	0.4632
Azerbaijani	Mean	4.4545	3.9890	4.1486	4.2637
	Var	0.4605	0.7216	0.6716	0.6651
Literature	Mean	4.2291	4.3764	4.3581	4.2537
	Var	0.5714	0.4337	0.4355	0.4903
World History	Mean	4.1236	4.0467	4.1014	4.0597
	Var	0.6562	0.6617	0.5815	0.5064
Azerbaijani History	Mean	4.1200	4.0165	4.1149	4.1144
	Var	0.6680	0.6444	0.5786	0.5818
Geography	Mean	4.2255	4.1703	4.1554	4.1443
	Var	0.6059	0.5329	0.5131	0.5641
Science	Mean	4.5782	4.6236	-	-
	Var	0.3762	0.3566	-	-
Biology	Mean	4.1818	4.2335	4.2027	4.1294
	Var	0.6749	0.5376	0.5301	0.6432
Mathematics	Mean	3.9818	3.9615	4.0811	4.0846
	Var	0.7697	0.7478	0.7553	0.6378
Physics	Mean	3.9745	3.9231	3.7770	3.8955
	Var	0.6380	0.6387	0.6914	0.6240
Chemistry	Mean	4.1964	4.1374	3.7838	3.8657
	Var	0.5452	0.5541	0.7965	0.7369
Informatics	Mean	4.6291	4.5769	4.5203	4.5423
	Var	0.3583	0.3825	0.4826	0.4595



# FINDINGS

Summary of F-test to compare two population variances of grades in each subject for 7th and 10th graders.

	7th Grade		10th Grade	
	F-value	p-value	F-value	p-value
<i>Russian</i>	1.0488	0.3349	0.9347	0.3335
<i>Azerbaijani</i>	0.6382	0.00001***	1.0098	0.4717
<i>Literature</i>	1.3175	0.0071***	0.8883	0.2237
<i>World History</i>	0.9916	0.4726	1.1483	0.1816
<i>Azerbaijani History</i>	1.0367	0.3729	0.9943	0.4884
<i>Geography</i>	1.1370	0.1267	0.9096	0.2722
<i>Science</i>	1.0549	0.3163	-	-
<i>Biology</i>	1.2553	0.0216**	0.8241	0.1071
<i>Mathematics</i>	1.0293	0.3973	1.1842	0.1334
<i>Physics</i>	0.9990	0.4985	1.1080	0.2495
<i>Chemistry</i>	0.9840	0.4456	1.0809	0.3035
<i>Informatics</i>	0.9367	0.2839	1.0503	0.3717



# FINDINGS

Summary of appropriate *t*-test to compare average grades of two groups in each subject for 7th and 10th graders separately.

	7th Grade		10th Grade	
	t-value	p-value	t-value	p-value
<i>Russian</i>	-1.0918	0.2753	1.0049	0.3156
<i>Azerbaijani</i>	7.6981	0.0000***	-1.2995	0.1946
<i>Literature</i>	-2.5758	0.0103**	1.4100	0.1594
<i>World History</i>	1.1858	0.2361	0.5241	0.6005
<i>Azerbaijani History</i>	1.6014	0.1098	0.0053	0.9958
<i>Geography</i>	0.9185	0.3587	0.1395	0.8892
<i>Science</i>	-0.9415	0.3468	-	-
<i>Biology</i>	-0.8246	0.4100	0.8777	0.3807
<i>Mathematics</i>	0.2917	0.7706	-0.0389	0.9690
<i>Physics</i>	0.8062	0.4204	-1.3542	0.1765
<i>Chemistry</i>	0.9955	0.3199	-0.8660	0.3871
<i>Informatics</i>	1.0704	0.2848	-0.2968	0.7668



# FINDINGS

*Basic descriptive statistics for 7th and 10th graders who commonly use Azerbaijani language in their families in each subject. We separate students into two groups, based on the additional preparations they received from tutors.*

		7th Grade		10th Grade	
		No Prep	Prep	No Prep	Prep
Russian	Mean	4.1866	4.0142	4.2537	4.2963
	Var	0.4687	0.5284	0.4043	0.4611
Azerbaijani	Mean	4.4776	4.4326	4.1194	4.1728
	Var	0.4469	0.4758	0.6522	0.6948
Literature	Mean	4.3284	4.1348	4.3881	4.3333
	Var	0.5229	0.6031	0.4835	0.4000
World History	Mean	4.1418	4.1064	4.1940	4.0247
	Var	0.6489	0.6672	0.5830	0.5744
Azerbaijani History	Mean	4.1567	4.0851	4.2388	4.0123
	Var	0.7046	0.6356	0.6088	0.5373
Geography	Mean	4.2463	4.2057	4.2388	4.0864
	Var	0.5930	0.6217	0.5179	0.5049
Science	Mean	4.5970	4.5603	-	-
	Var	0.3477	0.4053	-	-

Biology	Mean	4.2015	4.1631	4.2537	4.1605
	Var	0.6734	0.6803	0.5256	0.5364
Mathematics	Mean	4.0224	3.9433	4.0896	4.0741
	Var	0.6987	0.8396	0.6282	0.8694
Physics	Mean	4.0373	3.9149	3.8507	3.7160
	Var	0.6527	0.6213	0.6441	0.7309
Chemistry	Mean	4.2239	4.1702	3.7910	3.7778
	Var	0.5360	0.5565	0.6829	0.9000
Informatics	Mean	4.6940	4.5674	4.5373	4.5062
	Var	0.2591	0.4472	0.4948	0.4781

# FINDINGS

*Summary of F-test to compare two population variances of grades in each subject for 7th and 10th graders.*

	7th Grade		10th Grade	
	F-value	p-value	F-value	p-value
Russian	0.8871	0.2430	0.8769	0.2919
Azerbaijani	0.9392	0.3579	0.9387	0.3974
Literature	0.8670	0.2035	1.2087	0.2082
World History	0.9726	0.4363	1.0150	0.4719
Azerbaijani History	1.1086	0.2734	1.1329	0.2955
Geography	0.9539	0.3922	1.0256	0.4543
Science	0.8579	0.1864	-	-
Biology	0.9898	0.4767	0.9797	0.4685
Mathematics	0.8322	0.1429	0.7226	0.0870
Physics	1.0506	0.3861	0.8812	0.2991
Chemistry	0.9630	0.4137	0.7588	0.1240
Informatics	0.5793	0.0008***	1.0350	0.4391



# FINDINGS

*Summary of appropriate t-test to compare average grades of two groups in each subject for 7th and 10th graders separately.*

	7th Grade		10th Grade	
	t-value	p-value	t-value	p-value
<b>Russian</b>	2.0221	0.0441	-0.3906	0.6967
<b>Azerbaijani</b>	0.5488	0.5836	-0.3937	0.6944
<b>Literature</b>	2.1367	0.0335**	0.5009	0.6172
<b>World History</b>	0.3617	0.7178	1.3485	0.1796
<b>Azerbaijani History</b>	0.7256	0.4687	1.8169	0.0713*
<b>Geography</b>	0.4316	0.6663	1.2912	0.1987
<b>Science</b>	0.4957	0.6205	-	-
<b>Biology</b>	0.3866	0.6994	0.7744	0.4399
<b>Mathematics</b>	0.7469	0.4557	0.1075	0.9146
<b>Physics</b>	1.2718	0.2045	0.9808	0.3283
<b>Chemistry</b>	0.6017	0.5478	0.0897	0.9286
<b>Informatics</b>	1.7726	0.0775*	0.2706	0.7871







# DISCUSSION

---



# DISCUSSION

---

- *Subject – Does it matter?*
- *Duration of immersion – Does it matter?*
- *Gap between the native Russian speakers and native Azerbaijani speakers*
- *Extra tutoring / Support*





# CONCLUSION

---



# CONCLUSION

---



*Overall, we have found that although there is a gap in the performances of the students whose mother tongue is Azerbaijani and who study in Russian compared to those whose mother tongue is Russian, this gap vanishes as students get older. However, students struggling in such programs can benefit from the additional help of the tutors.*



---

*To conclude, we can say that the language policy in Azerbaijan reflects the linguistic reality of the country. The government recognizes the demand of certain groups to have their children immersed in the Russian language and creates the necessary conditions for that. The results of the study show that immersion in the second language does not prove to have a negative effect on student academic achievement overall.*



This paper was published in **Innovation: The European Journal of Social Science Research**

**PUBLICATION**



**Innovation: The European Journal of Social Science Research**



ISSN: (Print) (Online) journal homepage: <https://www.tandfonline.com/loi/ciej20>

## **The effect of the Russian language immersion on academic achievement of students whose mother tongue is Azerbaijani**

**Azar Abizada & Sevinj Seyidova**


To cite this article: Azar Abizada & Sevinj Seyidova (2021): The effect of the Russian language immersion on academic achievement of students whose mother tongue is Azerbaijani, *Innovation: The European Journal of Social Science Research*, DOI: [10.1080/13511610.2021.1891026](https://doi.org/10.1080/13511610.2021.1891026)

To link to this article: <https://doi.org/10.1080/13511610.2021.1891026>



# REFERENCES


---

- Agirdag, O., and G. Vanlaar. 2016. “Does More Exposure to the Language of Instruction Lead to Higher Academic Achievement? A Cross-National Examination.” *International Journal of Bilingualism* 22 (1): 123–137.
- August, D., and T. Shanahan. 2006. *Developing Literacy in Second-Language Learners: Report of the National Literacy Panel on Language Minority Children and Youth*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Benson, C. 2002. “Real and Potential Benefits of Bilingual Programmes in Developing Countries.” *International Journal of Bilingual Education and Bilingualism* 5 (6): 303–307
- Bialystok, E. 2018. “Bilingual Education for Young Children: Review of the Effects and Consequences.” *International Journal of Bilingual Education and Bilingualism* 21 (6): 666–679.
- Brutt-Griffler, J., and E. Jang. 2019. “Dual Language Programs: An Exploration of Bilingual Students’ Academic Achievement, Language Proficiencies and Engagement Using a Mixed Method Approach.” *International Journal of Bilingual Education and Bilingualism*, forthcoming.
- Chalmers, H. 2019. *The Role of the First Language in English Medium Instruction*. Oxford University Press. Oxford, UK.
- Cheshkin, A., and A. Kachuyevski. 2019. “The Russian-Speaking Populations in the Post-Soviet Space: Language, Politics and Identity.” *Europe-Asia Studies* 71 (1): 1–23.
- Cooper, F. 1971. “Math as a Second Language.” *The Instructor* 81: 76–77.
- Cummins, J. 2001. *Bilingual Children’s Mother Tongue: Why Is it Important for Education?* *Sprogforum* 7 (19): 15–20.
- 



# REFERENCES


---

- Garibova, J. 2009. "Language Policy in Post-Soviet Azerbaijan." *International Journal of the Sociology of Language* 198: 7–32.
- Genesee, F. 1983. "Bilingual Education of Majority-Language Children: The Immersion Experiments in Review." *Applied Psycholinguistics* 4 (1): 1–46.
- Goh, K. 1978. Report on the Ministry of Education. Singapore: Government Press.
- Heugh, K., C. Benson, B. Bogale, and M. A. G. Yohannes. 2007. Final Report Study on Medium of Instruction in Primary Schools in Ethiopia, 22 January 2007. Commissioned by the Ministry of Education Sept. to Dec. 2006
- Ho, Kwok K. 1985. "The Paradox of Immersion in a Second Language." *NABE Journal* 10 (1): 51–64.
- Holden, R. R. 2007. "Socially Desirable Responding Does Moderate Personality Scale Validity Both in Experimental and in non-Experimental Contexts." *Canadian Journal of Behavioral Science* 39: 184–201.
- Lambert, W. E., and G. R. Tucker. 1972. *The Bilingual Education of Children*. Rowley, MA: Newbury House.
- MacNamara, J. 1966. *Bilingualism and Primary Education: A Study of the Irish Experience*. Edinburgh, Scotland: Edinburgh University Press.
- MacNamara, J. 1967. "The Effects of Instruction in a Weaker Language." *Journal of Social Issues* 23: 121–135.
- Mondt, K., E. Struys, M. Van den Noort, D. Balériaux, T. Metens, P. Paquier,...V. Denolin. 2011. "Neural Differences in Bilingual Children's Arithmetic Processing Depending on Language of Instruction." *Mind, Brain, and Education* 5 (2): 79–88.
- Mwinsheikhe, H. M. 2003. "Science and the Language Barrier: Using Kiswahili as a Medium of Instruction in Tanzania Secondary Schools as a Strategy of Improving Student Participation and Performance in Science." In *Language of Instruction in Tanzania and South Africa (LOITASA)*, edited by Birgit Brock-Utne, Zubeida Desai, and Martha Qorro, 129–149. Dar es Salaam: E & D Publishers.
- 



# REFERENCES

---


- Nagzibekova, M. 2008. "Language and Education Policies in Tajikistan." *International Journal of Bilingual Education and Bilingualism* 11 (3-4): 501–508.
- Olmedo, I. M. (2003). Language Mediation among Emergent Bilingual Children. *Linguistics and Education*, 14(2), 143-162.
- Pavlenko, A. 2008. "Multilingualism in Post-Soviet Countries: Language Revival, Language Removal, and Sociolinguistic Theory." *International Journal of Bilingual Education and Bilingualism* 11 (3–4): 275–314.
- Pinnock, H. 2009. "Language and Education: The Missing Link-How the Language Used in Schools Threatens the Achievement of Education of All." CfBT Education Trust. UK: Save the Children. Programme for International Student Assessment (PISA). 2006. *Where Immigrant Students Succeed – A Comparative Review of Performance and Engagement in PISA 2003*. Paris: OECD.
- Saikia, J., and A. K. Mohanty 2004. The role of mother tongue medium instruction in promoting educational achievement: A study of GradeIVBodochildren in Assam (India.). Unpublished manuscript, Zakir Husain Centre for Educational Studies, JNU, New Delhi. *Innovation: The European Journal of Social Science Research* 15
- Saracho, O. N. 1983. "Essential Requirements for Teachers in Early Childhood Bilingual/Bicultural Programs." *Childhood Education* 60 (2): 96–101.
- Singer, H. 1956. "Bilingualism and Elementary Education." *The Modern Language Journal* 40 (8): 444–458.
- 





# REFERENCES

---

- Singleton, D. M., and L. Ryan. 2004. *Language Acquisition: The Age Factor*. 2nd ed. Clevedon, UK: Multilingual Matters.
- Siu, P. 1979. *The Effect of the Medium of Instruction on Student Cognitive Development and Academic Achievement*. Hong Kong: Chinese University of Hong Kong.
- Smagulova, J. 2006. “Kazakhstan: Language, Identity and Conflict.” *Innovation: The European Journal of Social Science Research* 19 (3-4): 303–320.
- Spelke, E. S., and S. Tsivkin. 2001. “Language and Number: a Bilingual Training Study.” *Cognition* 78 (1): 45–88.
- Strand, O., and K. Schwippert. 2019. “The Impact of Home Language and Home Resources on Reading Achievement in ten-Years-Olds in Norway, PIRLS 2016.” *Nordic Journal of Literacy Research* 5 (1): 1–17.
- Swain, M., and S. Lapkin. 1982. *Evaluation Bilingual Education: A Canadian Case Study*. Clevedon: Multilingual Matters.
- Tovar-García, E. D., and H. Alòs i Font. 2017. “Bilingualism and Educational Achievements: the Impact of the Language Used at Home by Tatar School Students in Tatarstan, Russia.” *Journal of Multilingual and Multicultural Development* 38 (6): 545–557.
- UNESCO. 1953. “The use of Vernacular Languages in Education.” In *Monographs on Fundamental Education*. VIII [13]. Paris, France: UNESCO.
- UNESCO. 2011. *Enhancing the Learning of Children from Diverse Language Backgrounds: Mother Tongue-Based Bilingual or Multilingual Education in the Early Years*. Paris: UNESCO France.
- Vygotsky, L. S. 1962. *Thought and Language*. Cambridge: MIT Press, Massachusetts Institute of Technology.
- Wilmot, Eric Magnus. 2003. *Stepping Outside the Ordinary Expectations of Schooling: Effect of School Language on the Assessment of Educational Achievement in Ghana*.
- Yazıcı, Z. 1999. *Investigation of connection between language development and reading readiness of Turkish nursery school children aged 60-76 months in Germany and Turkey*. PhD thesis, Gazi University.
- Yazıcı, Z., B. G. İltar, and P. Glover. 2010. “How Bilingual is Bilingual? Mother-Tongue Proficiency and Learning Through a Second Language.” *International Journal of Early Years Education* 18 (3): 259–268.
- 



# ACKNOWLEDGEMENT

THE INSTITUTE OF EDUCATION OF THE AZERBAIJAN REPUBLIC

---





# THANKS!

Do you have any questions?

[aabizada@ada.edu.az](mailto:aabizada@ada.edu.az)

[sevinj.seyidova.bariz@bsu.edu.az](mailto:sevinj.seyidova.bariz@bsu.edu.az)

