Thematic Article

State language and foreign language competence in minority schools: Social and institutional determinants of Ukrainian and English proficiency in Transcarpathia

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Abstract

This study examines Ukrainian (state language) and English language performance among students attending Hungarian-medium schools in Transcarpathia within the context of post-2017 language-use restrictions. The empirical assessment conducted in spring 2024 involved 1,082 students in Grades 6 and 8 from 39 Hungarian-medium schools. English language competence was measured using standardized tests, while Ukrainian language proficiency was assessed through locally developed instruments. A background questionnaire collected data on students' family background, socio-economic conditions, and linguistic environment. Regression analyses indicate that Ukrainian language performance is most strongly predicted by socio-economic status and type of settlement, highlighting the role of structural and environmental factors. In contrast, English language achievement is primarily shaped by individual academic indicators and institutional characteristics, with students attending church-maintained schools demonstrating significantly higher performance. In both languages, a strong association was found between subject grades and test results. The findings underscore that Ukrainian language competence is substantially influenced by structural disadvantages, whereas foreign language learning outcomes are more strongly supported by institutional culture and pedagogical coherence. The research highlights that Ukrainian language competence is influenced by structural disadvantages, while the effectiveness of foreign language learning can be strengthened by institutional culture and pedagogical coherence.

Keywords: competence assessment; language competence; minority education

Introduction

The post-2017 transformation of the Ukrainian education system has fundamentally reshaped the operating conditions of Hungarian-medium schools in Transcarpathia. The new education law substantially restricted opportunities for mother-tongue instruction, while the gradual tightening of Ukrainian language requirements created a learning environment in which the acquisition of the state language poses a particularly significant challenge for minority students. The outbreak of war in 2022 further intensified the presence of Ukrainian language use in urban areas, thereby accentuating the role of settlement type in language acquisition processes. The social embeddedness of language performance has been extensively documented in the international literature. Socio-economic status (SES) is consistently identified as one of the strongest predictors of language competence, especially in minority contexts where inequalities in family background and linguistic ecosystems tend to be amplified. The quality of the school environment also plays a crucial role in shaping educational outcomes. The present study aims to identify the factors influencing English and Ukrainian language performance among students attending Hungarian-medium schools in Transcarpathia, with particular attention

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to socio-economic background, school type, and settlement context. Drawing on relevant academic literature, the study formulates hypotheses addressing the impact of SES on language outcomes, the added value of church-maintained schools, and the role of urban residence in state language acquisition. The quantitative analytical approach adopted in this research allows the social, institutional, and environmental determinants of language performance to be examined within an integrated explanatory framework.

Theoretical Framework

The Language Policy Context of Education in Transcarpathia and an Innovative Model as an Educational Policy Response

Interpreting language competences in Transcarpathia necessarily requires consideration of the post-2017 transformation of education and language policy in Ukraine, as the past decade has witnessed profound language-policy-driven restrictions affecting Hungarian-medium education in the region. Article 7 of the Education Law adopted on 5 September 2017[4] limited education in the languages of national minorities to preschool and Grades 1–4 of primary education, while from Grade 5 onward the language of instruction was to be gradually shifted to the state language. Compared to previous regulations, this represented a substantial restriction of rights, as it eliminated the opportunity for minority students to receive mother-tongue instruction throughout the entire educational trajectory. The Venice Commission, in its Opinion No. 902/2017[5], warned that the new regulatory framework fails to strike an appropriate balance between strengthening the state language and protecting minority language educational rights, and disproportionately reduces the level of protection previously achieved. As demonstrated in detail by Csernicskó and Márku (2020), the combined effect of the framework education law, the state language law, and the law on general secondary education has led to a gradual narrowing of minority language rights, while the requirements imposed on Ukrainian language instruction remain insufficiently aligned with the linguistic environments of minority learners.

In response to these restrictions, an innovative programme entitled the *European Integrated Model of Hungarian-Language Education* was developed for Hungarian-medium institutions in Transcarpathia and approved as a pilot project by the Ministry of Education and Science of Ukraine in 2021[6]. The model aims to preserve mother-tongue instruction within the new legal framework, strengthen a competence-based approach, establish balanced Ukrainian–Hungarian–English curricula, and integrate subjects that reinforce minority identity. Ministerial Decree No. 1033/2021 stipulates that schools participating in the pilot project must regularly monitor students' performance through standardized assessments, enabling the long-term tracking of both state and foreign language competence development across student groups with different social backgrounds (Orosz & Pallay, 2024). This framework has created an empirical research environment in which the structural effects of language policy restrictions and students' individual resources – most notably socio-economic status – can be examined simultaneously through the dynamics of language competence development.

The Impact of Socio-Economic Status and School Environment on Language Performance

International educational research consistently demonstrates that the socio-economic status (SES) is one of the strongest predictors of student achievement (Sirin, 2005). In the case of Hungarian-medium schools in Transcarpathia, this effect has become particularly salient in the post-2017 educational policy context, as language policy restrictions have tightened Ukrainian language requirements while students' linguistic environments and family resources have remained highly differentiated, partly due to the war that has been going on since 2022. Bourdieu (1986) highlights the socially determined nature of school achievement, arguing that students enter the education system with varying amounts and forms of cultural capital. Families with higher SES provide their children with greater levels of embodied and institutionalized cultural capital, which translates into direct advantages in educational success. Large-scale research by Hoff and Tian (2005) further demonstrates that SES not only correlates with children's vocabulary development but directly shapes the pace and level of language acquisition. Children of parents with higher educational attainment and more favourable material resources tend to display more advanced vocabulary and higher levels of linguistic awareness, as they are exposed to richer and more complex linguistic input. Spolsky's (2004) model likewise emphasizes that

[4] https://zakon.rada.gov.ua/laws/show/2145-19#text
[5] https://www.venice.coe.int/webforms/documents/?pdf=CDL-AD(2017)030-e&utm
[6] https://mon.gov.ua/npa/pro-realizaciyu-innovacijnogo-osvitnogo-proektu-za-temoyu-yevropejska-integrovana-model-shkoli-z-ugorskoyu-movoyu-navchannya-na-bazi-zakladiv-zagalnoyi-serednoyi-osviti-zakarpatskoyi-oblasti-

language competence is strongly influenced by social and environmental factors. In multilingual settings, both the quantity and quality of language use are decisive for competence development (Spolsky, 2004), which is particularly relevant for Hungarian minority students in Transcarpathia, who are typically exposed to weaker Ukrainian language input than their Ukrainian-speaking peers (Csernicskó, 2020).

A deeper sociological interpretation of the relationship between SES and language performance is provided by Bourdieu's concepts of cultural and linguistic capital. According to Bourdieu (1977; 1991), linguistic competence constitutes a key mechanism of social reproduction. Children who acquire and internalize the linguistic norms and communicative patterns of higher-status social groups enter the school system with a structural advantage. Linguistic capital thus functions as a symbolic resource that significantly shapes educational trajectories. Consequently, students from higher socio-economic backgrounds generally demonstrate more developed linguistic habitus, richer vocabularies, and greater communicative confidence. Analyses based on PISA data by Papp (2025) further confirm that family background – particularly cultural capital and parental education – plays a decisive role in shaping educational outcomes. In minority contexts, these effects are amplified, as students are often exposed to weaker state-language environments, directly affecting the development of language competences.

Students' language competences, however, are formed not only by family background but also by the institutional and pedagogical environment of schools. Research by Creemers and Kyriakides (2007) shows that the quality of instruction, the coherence of pedagogical expectations, and the learning climate systematically influence students' cognitive and linguistic development. Schools characterized by consistent teaching practices, high teacher expectations, and stable institutional cultures tend to achieve measurably better student outcomes. This is particularly evident in competence domains where classroom interaction plays a central role, such as foreign or second language acquisition. Pusztai (2008) demonstrates that educational institutions with stable, value-based organizational cultures exhibit stronger community cohesion and higher levels of student commitment, which positively affect academic performance, including language competences. Church-maintained schools can be regarded as representative of such stable, value-oriented institutional environments.

Within the Transcarpathian context, all this acquires particular significance. Due to language policy restrictions affecting mother-tongue education and the increasing dominance of the state language, differences between schools exert a heightened influence on students' Ukrainian and English language development. The more stable institutional cultures and relational resources of church-maintained schools may function as protective factors, partially offsetting adverse social and linguistic environmental conditions. As a result, school type should not be treated merely as a background variable, but rather as an independent and substantial predictor of language competence development.

Within the theoretical framework of the present study, Bourdieu's concept of linguistic capital, Spolsky's model of language acquisition, and school-effect research are integrated to provide a comprehensive interpretation of language competence development. Bourdieu emphasizes that linguistic competence is a socially determined and unequally distributed resource, while Spolsky highlights the decisive role of linguistic input and the broader sociolinguistic environment in shaping language acquisition processes. School-effect research complements these perspectives by incorporating the institutional dimension, underscoring the significance of pedagogical practices and organizational functioning in influencing student outcomes. Based on the integration of these approaches, it can be assumed that schools characterized by stable, coherent pedagogical practices and strong institutional cultures, particularly church-maintained institutions, provide more favourable conditions for the development of language competences.

Drawing on the above theoretical considerations, the formation of language competences can be interpreted within the following conceptual framework. We assume that Ukrainian and English language competences are shaped by distinct mechanisms. The acquisition of Ukrainian as a state language is primarily determined by structural and environmental factors: socio-economic status and the linguistic characteristics of the settlement influence both the quantity and quality of language input, resulting in Ukrainian language competence functioning as an unequally distributed form of linguistic capital among minority students.

In contrast, the acquisition of English as a foreign language is more closely linked to institutional and individual-level factors. As language learning predominantly takes place within the school setting, competence development is largely influenced by the quality of instruction, pedagogical practices, and institutional culture. In line with school-effect research, a more favourable impact can be expected in church-maintained schools, where more stable organizational functioning and supportive learning environments contribute to improved outcomes. Overall, while Ukrainian language competence is primarily shaped by structural conditions and the

sociolinguistic environment, English language performance is largely explained by institutional functioning and pedagogical processes.

Methodological Background of the Research

The study focuses on the specific linguistic environment of Hungarian-medium schools in Transcarpathia, where students learn Ukrainian as the state language and English as a foreign language. The research aims to identify the student-, family-, and school-level background factors that shape Ukrainian and English language performance among Hungarian native-speaking students.

Data collection was conducted in 39 Hungarian-medium schools across Transcarpathia among students in Grades 6 and 8. The sample comprised 1,082 students, of whom 53.1% were sixth graders and 46.9% eighth graders. Although the sample is not representative of the entire Hungarian student population of Transcarpathia, the territorial distribution of the participating schools reflects the structural characteristics of Hungarian-language education in the region: institutions from both Hungarian-majority settlements and minority-dispersion areas were included. This design made it possible to compare learning outcomes across different linguistic environments.

The assessment conducted in spring 2024 aimed to map students' Ukrainian and English language competences. The English language test tasks were provided by the Education Authority (OH) and were based on the standardized instruments used in the National Competence Assessment (NCA), which has been applied in Hungary for decades. As a result, a set of expert-validated and previously piloted measurement tools was available, ensuring reliable application in an online environment. The English test constituted a standardized instrument comprising multiple task types, primarily assessing reading comprehension, grammar, and vocabulary. The structure and number of items followed the established practices of the National Competence Assessment, allowing for the inclusion of tasks with varying levels of difficulty. The validity and reliability of the instrument are supported by large-scale applications conducted by the Education Authority, and therefore the ability scores used in the present study can be regarded as stable and comparable indicators of student performance.

Ukrainian language proficiency was assessed using test materials developed by local methodological experts, specifically designed to reflect the linguistic characteristics of minority learners. The assessment was administered online using Google Forms. The test covered multiple dimensions, including reading comprehension, basic language use, and competences required for practical communication. The development of the test tasks followed an expert-based validation process, ensuring both content validity and alignment with curricular expectations. While English language performance was estimated using ability scores derived from the National Competence Assessment model, Ukrainian language outcomes were calculated on a 0–100 scale based on principles of classical test theory. The use of two distinct measurement approaches made it possible to obtain reliable performance indicators in both language domains.

Both instruments were tailored to the age-specific characteristics of the target population, and special care was taken to ensure their stable administration in an online environment. Despite the use of different measurement approaches, the results were interpreted within a unified analytical framework

A background questionnaire was also administered, adapted from the NCA student questionnaire and supplemented with items reflecting the specific conditions of minority life in Transcarpathia. These included questions related to language use at home, migration experiences, and the impact of wartime conditions on learning. This framework enabled student performance to be interpreted within a complex constellation of family, social, and economic background factors.

Empirical analyses were conducted using SPSS version 22. In addition to descriptive statistics and bivariate analyses (ANOVA), multivariate linear regression models were applied to identify the factors exerting the strongest influence on Ukrainian and English language competence among Hungarian native-speaking students. Missing data were handled using listwise deletion; therefore, only cases with valid values on all variables included in the models were retained in the regression analyses. The proportion of missing data was low and did not substantially affect the interpretability of the results. To ensure the validity of the linear regression models, the underlying assumptions were examined. The distribution of residuals approximated normality, and no substantial deviations from linearity were detected. Multicollinearity diagnostics indicated that the level of association among the independent variables did not reach critical thresholds (VIF < 5), suggesting that excessive collinearity did not bias the estimates. The fulfilment of these assumptions allowed for the reliable application and interpretation of the regression models.

Based on the relevant academic literature, the following hypotheses were formulated:

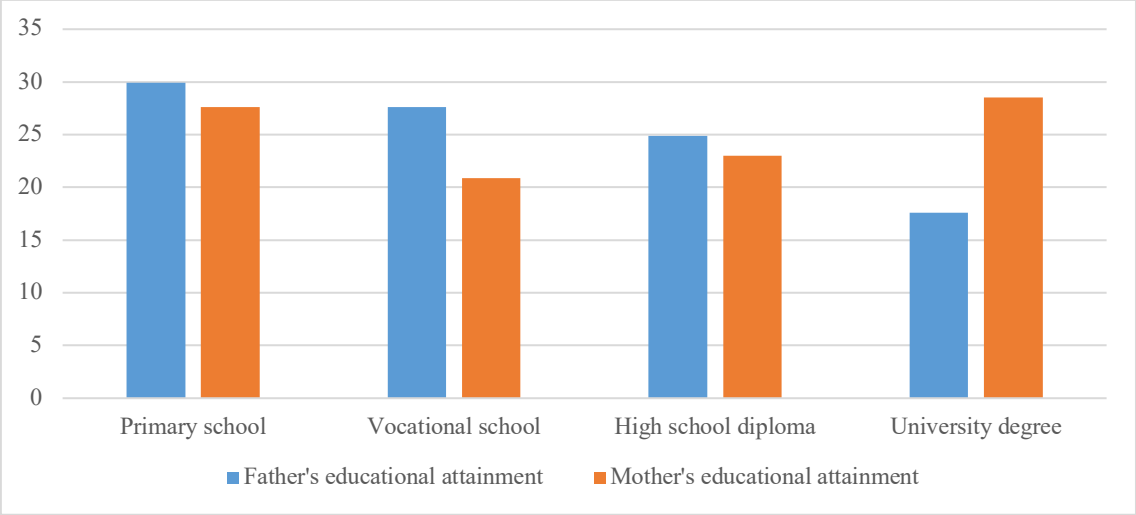
H1: Higher socio-economic status (SES) and higher parental educational attainment positively influence both English and Ukrainian language performance (Sirin, 2006; Hoff & Tian, 2005).
H2: Drawing on Pusztai (2008), it is hypothesized that attendance of church-maintained schools has a positive effect on language outcomes.
H3: Urban residence has a positive impact on Ukrainian language competence due to more frequent and intensive exposure to the state language; therefore, urban students are expected to perform better than their rural counterparts (Csernicskó, 2012).

Socio-Demographic Characteristics of the Participating Students

With regard to gender distribution, a slight female predominance can be observed, with 52.8% girls and 47.2% boys in the sample. Examining the type of settlement of residence, the vast majority of respondents (74.9%) live in rural areas, while 18.8% reside in urban settlements, and 6.3% live in the regional capital, Uzhhorod. This residential distribution clearly reflects the fact that the participants attend Hungarian-medium schools, as Hungarian communities in Transcarpathia are primarily concentrated in rural settlements.

Analysis of parental educational attainment indicates that among fathers, primary education (29.9%) and vocational qualifications (27.6%) are the most prevalent. Among mothers, the proportion of those holding a tertiary degree is the highest, accounting for 28.5%. In contrast, only 17.6% of fathers possess higher education qualifications. These distributions are illustrated in Figure 1.

Figure 1. Parents' educational attainment (%, N=1082)

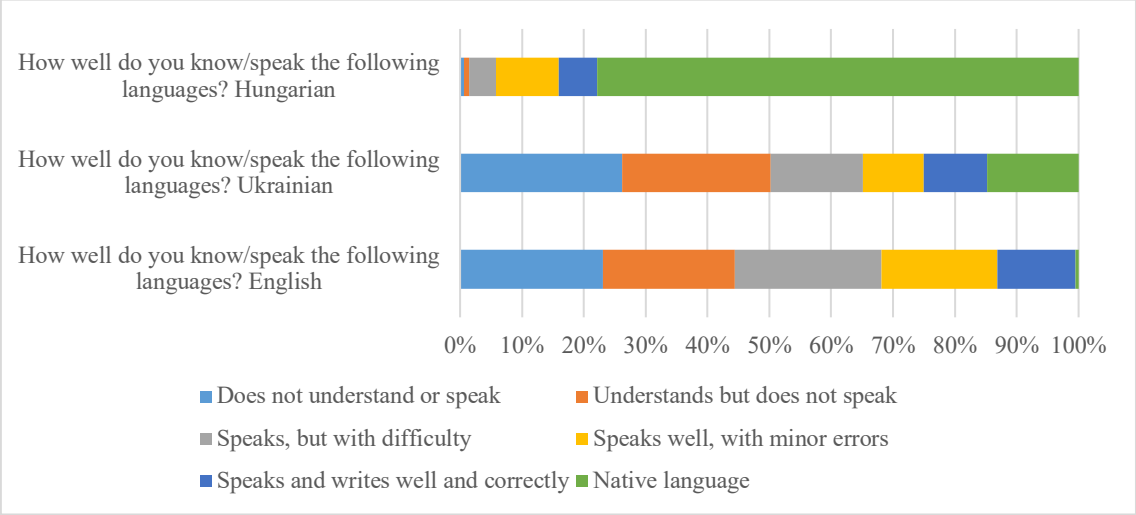


Source: own compilation

The vast majority of respondents (64.3%) assessed their household's financial situation as average based on subjective evaluation. A further 21.7% reported living conditions above average, while 5.8% described their material circumstances as very good. At the other end of the spectrum, nearly 9% of students reported living under very difficult financial conditions. Examination of parental labor market status reveals that mothers are more frequently affected by homemaker status, irregular employment, and unemployment. Among fathers, 56.9% are engaged in regular employment, while 16.4% work as entrepreneurs or self-employed farmers.

Given the minority Hungarian context of the region, particular attention was paid to students' self-reported language proficiency. For the overwhelming majority of respondents (77.8%), Hungarian functions as the mother tongue. The situation is more nuanced in the case of Ukrainian: 14.8% reported Ukrainian as their mother tongue, 26.2% indicated that they do not understand it at all, and 24.0% stated that they understand but do not speak the language. With regard to English, 21.0% of respondents reported being able to speak the language well, albeit with minor errors, while 12.0% indicated near-native proficiency. At the same time, nearly one quarter of the students (24.0%) reported that they neither understand nor speak English.

Figure 2. Students' language skills (%, N=1082)



Source: own compilation

Language proficiency differs significantly by type of settlement. While students living in rural environments demonstrate particularly high levels of Hungarian language competence, Ukrainian and English language competences are more developed among students residing in urban areas, and especially among those living in the regional capital. These settlement-based differences in language performance can be primarily explained by variations in the linguistic environments associated with different types of settlements. Urban areas–most notably Uzhhorod–constitute linguistically heterogeneous contexts in which the presence of Ukrainian is more salient not only in formal education but also in everyday communication.

As a consequence, Hungarian native-speaking students living in urban settings exhibit higher levels of Ukrainian language competence than their peers in rural areas. By contrast, rural communities tend to be characterized by a more homogeneous pattern of language use, with a strong dominance of Hungarian in both school-based and out-of-school communicative domains. This relatively closed linguistic environment supports the maintenance of high levels of Hungarian language competence, while simultaneously limiting opportunities for natural exposure to Ukrainian.

The heterogeneity of the urban linguistic environment is further reinforced by the fact that, in some cases, Ukrainian native-speaking students also enrol in Hungarian-medium schools for pragmatic reasons, such as geographical proximity, institutional infrastructure, the opportunity to acquire a European Union language, or family-level decision-making processes.

Table 1. Differences between language knowledge and spoken language

	County seat	**Town**	**Village**	**M**	**F**	**p**	**N**
Hungarian language	4.38	5.10	5.74	**5.54**	98.64	< .001	994
Ukrainian language	5.50	4.27	2.45	**2.98**	203.25	< .001	967
English	3.23	2.97	2.70	**2.98**	6.50	.002	949

Note. M = mean. p values are based on ANOVA.

As presented in Table 2, the descriptive statistics provide an overview of the variables included in the analysis. The mean values suggest moderate levels of both Ukrainian and English language performance among the students. The distribution of the explanatory variables highlights the heterogeneity of the sample in terms of socio-economic status, family background, and school-related factors, thereby justifying the use of multivariate analytical approaches.

Table 2. Descriptive Statistics of Variables Included in the Analysis

Variable	M	SE
English test score	1489.52	6.55
Ukrainian test score	67.47	0.77
English grade	0.52	0.02
English language proficiency	0.56	0.02
Grade point average	0.59	0.02
Year	0.47	0.02
Availability of laptop	0.39	0.02
Kindergarten attendance	0.69	0.01
Type of school (1 = church)	0.16	0.01
Ukrainian grade	0.58	0.02
Ukrainian language proficiency	0.50	0.02
Love of the English language	0.65	0.01
Father's educational attainment	0.54	0.02
Financial situation	0.28	0.01
Type of settlement (1 = village, 0 = town)	0.71	0.01
GENIUS talent management	0.70	0.01
Extra lessons	0.76	0.01
Hungarian extra lessons	0.96	0.01

Note. N ranges between 879–1080 due to missing data. Dummy variables are coded as 1 = presence of the given category.

During the study, we examined students' subject grades in the target languages. Mean grades in both English and Ukrainian differ between Grades 6 and 8. Sixth-grade students achieved an average grade of 8.110 in English and 7.844 in Ukrainian on the 12-point grading scale used in Ukraine (where 1 denotes the lowest and 12 the highest grade). This pattern suggests that at this stage of schooling, students' foreign language performance slightly exceeds their state language competence.

Among eighth-grade students, a decline can be observed in both subjects: the mean English grade decreases to 8.000, while the mean Ukrainian grade drops more substantially to 7.401. The change in English is minimal, indicating relatively stable performance, whereas the more pronounced decline in Ukrainian suggests that state language acquisition becomes increasingly challenging at higher grade levels.

Ukrainian language performance within the examined student sample shows considerable variability. The lowest observed score was 31.42 points, while the highest reached 89.83 points, with a mean score of 66.99 points. This indicates that most students perform at a moderate level of Ukrainian language proficiency, while the wide minimum–maximum range reflects substantial differences in linguistic socialization and exposure. English language results were calculated using probabilistic test theory metrics and therefore fall within a substantially higher score range: the minimum score was 1158.93, the maximum 1750.44, and the mean 1485.73.

Results of the ANOVA analyses indicate that students attending church-maintained schools achieved significantly higher performance in English (M = 1600) than their peers in municipal schools (M = 1410), highlighting the differentiating effect of institutional type. Although differences in Ukrainian language performance are less pronounced, a similar pattern is observable: students in church-maintained schools achieved a mean score of 70.31 points, compared to 66.35 points among students in municipal schools.

Subsequently, linear regression analyses were conducted to identify factors exerting positive or negative influences on foreign language and state language competences. English language performance is significantly shaped by multiple predictors. The strongest association is observed with students' English subject grade ($\beta = 0.368$, $p < .001$), indicating that school-based assessment serves as a reliable indicator of performance on standardized tests. Self-reported English language proficiency also emerges as a significant positive predictor ($\beta = 0.127$, $p = .044$), suggesting a transfer effect of accumulated language experience.

Overall academic achievement, measured by grade point average, likewise exerts a positive influence ($\beta = 0.127$, $p = .044$), reflecting students' general academic success. Grade level is also a significant positive predictor ($\beta = 0.127$, $p = .030$), indicating that eighth-grade students outperform sixth graders, which may be

attributed to age-related gains in schooling experience and language development. The number of laptops available in the household shows a positive effect as well (β = 0.132, p = .026), pointing to the advantages associated with digital access and technological resources.

Participation in early childhood education significantly improves English language performance (β = 0.136, p = .017), in line with international research demonstrating that early institutional socialization contributes to later success in language learning (Finders et al., 2023; Lengyel, 2012). Finally, school type also proves to be a significant positive predictor (β = 0.165, p = .008), indicating that church-maintained institutions provide more favourable conditions for English language learning.

Table 3. Linear Regression Model Predicting English Language Performance

Explanatory variables	Standardized β
English grade	0.368***
English language proficiency	0.256***
Grade point average	0.127*
Year	0.127*
Availability of laptop	0.138**
Kindergarten attendance	0.136**
Type of school	0.165*

Note. Standardized beta coefficients (β) are reported. ***p < .001, **p < .01, *p < .05.

The regression model explaining Ukrainian language performance identified several significant predictors that clearly delineate the factors shaping state language competence in the Transcarpathian context. The variables exerting the strongest effects are those directly related to language competences. Accordingly, Ukrainian language proficiency emerged as a strong positive predictor (β = 0.297, p < .001), indicating a close alignment between students' linguistic awareness and their actual performance. Similarly strong predictors include English language proficiency (β = 0.274, p < .001) and a positive attitude towards English (β = 0.188, p = .005), suggesting that higher levels of foreign language knowledge enhance general linguistic competences, which are also reflected in Ukrainian language performance.

Subject grades in Ukrainian also exert a significant positive effect on test outcomes (β = 0.193, p = .003), demonstrating convergence between formal school assessment and standardized measurement, and pointing to the relative objectivity of teachers' evaluations. Participation in out-of-school enrichment activities, including the GENIUS talent development programme (β = 0.124, p = .046) and other private tutorials (β = 0.129, p = .037), was likewise positively associated with performance. These findings indicate that intensive language-focused and general competence development activities enhance students' linguistic achievement.

Attending Hungarian language tutorials also showed a statistically significant positive association with Ukrainian language outcomes. This effect is unlikely to reflect a direct transfer from Hungarian language instruction; rather, it appears to be linked to students' sociolinguistic background. Hungarian tutorials are often attended by students who, despite enrolling in Hungarian-medium schools, grow up in bilingual or predominantly Ukrainian-speaking home environments. Due to their bilingual background, these students tend to display more advanced Ukrainian language competences. In this case, therefore, the observed association likely reflects pre-existing linguistic advantages rather than the direct impact of Hungarian language instruction.

Regarding socio-economic background, material well-being proved to be the most influential factor (β = 0.207, p < .001), with students from more affluent households achieving higher levels of Ukrainian language performance. Fathers' higher educational attainment also had a significant positive effect (β = 0.208, p = .003). Type of settlement emerged as a significant negative predictor (β = –0.261, p < .001): students residing in rural areas performed significantly worse in Ukrainian than their urban peers. This disparity can be explained by differences in linguistic environments, as rural communities are characterized by a stronger dominance of Hungarian, which limits opportunities for regular and meaningful exposure to Ukrainian.

Table 4. Linear Regression Model Predicting Ukrainian Language Performance

Explanatory variables	Standardized β
Ukrainian grade	0.193***
Ukrainian language proficiency	0.297***
Love of the English language	0.188*
Father's educational attainment	0.208*
Financial situation	0.207***
Type of settlement (1 village, 0 town)	-0.261***
GENIUS talent management	0.127*
Extra lessons	0.129*
Hungarian extra lessons	0.124*

Note. Standardized beta coefficients (β) are reported. ***p < .001, **p < .01, *p < .05.

Discussion

The first hypothesis, according to which higher socio-economic status (SES) and parental educational attainment improve students' language performance, was partially supported. In the case of Ukrainian, SES emerged as one of the strongest predictors: a more favorable material background and higher paternal educational attainment significantly enhanced students' performance. These findings are consistent with Bourdieu's (1986) theory of cultural capital and with the empirical evidence provided by Hoff and Tian (2005), which demonstrates that children from higher-status families are embedded in richer linguistic environments and receive more frequent and more complex linguistic input, leading to faster and more advanced language development.

By contrast, SES did not exhibit significant explanatory power for English language performance. Instead, English achievement was primarily shaped by individual and school-related factors, such as subject grades, self-assessed language competence, and access to digital devices. This pattern suggests that English language instruction is delivered within more standardized pedagogical frameworks, making it less dependent on family-based capital than Ukrainian, which students access to varying degrees outside school depending on their linguistic environment.

The second hypothesis, positing that church-maintained schools positively influence student achievement, was supported, particularly with respect to English language outcomes. Students attending church-maintained schools demonstrated significantly higher levels of English proficiency, a finding that aligns with Pusztai's (2008) argument that these institutions are characterized by stronger learning norms, higher levels of parental support, and more stable community commitment. In the case of Ukrainian language performance, the direct effect of school type did not remain significant in the multivariate model; however, several indirectly related factors including student motivation, the quantity of linguistic input, and academic attitudes played a significant role. As these factors are more prevalent in church-maintained schools, the results suggest that institutional culture indirectly supports Ukrainian language acquisition, although it cannot fully compensate for structural disadvantages such as limited exposure to the state language.

The third hypothesis, proposing that urban residence has a positive effect on Ukrainian language performance, was clearly confirmed. Students living in rural areas performed significantly worse than their urban counterparts. This disparity reflects the distinctive sociolinguistic spatial structure of Transcarpathia, where Hungarian-majority communities are predominantly located in rural settlements, resulting in a strong dominance of Hungarian in everyday language use. In these contexts, Ukrainian language use is often confined to the classroom, and opportunities for natural exposure to the state language remain minimal. In contrast, urban areas are far more ethnically and linguistically heterogeneous, where Hungarian–Ukrainian bilingualism is more common, assimilation pressures are stronger, and Ukrainian has a more intensive presence across communicative domains. The outbreak of war in 2022 further intensified this dynamics, as the arrival of internally displaced persons from other regions of Ukraine increased both the frequency and naturalness of Ukrainian language use in larger cities. As a result, urban students are exposed to substantially higher levels of authentic Ukrainian language input, which plays a decisive role in shaping state language competence.

Conclusion

The aim of this study was to identify the student-, family-, and school-level factors that explain Ukrainian and English language performance among students attending Hungarian-medium schools in Transcarpathia, within an educational policy context fundamentally reshaped by post-2017 language regulations. The results of the regression analyses demonstrate that language competences are shaped by multi-level and interrelated mechanisms, which operate differently in the acquisition of the state language and the foreign language.

On the one hand, Ukrainian language performance is strongly associated with students' socio-economic resources and the linguistic ecology of their place of residence. The models indicate that material well-being, parental educational attainment, and opportunities for Ukrainian language exposure constitute the most influential predictors. Urban residence provides a significant advantage, reflecting the specific sociolinguistic spatial structure of Transcarpathia: while rural Hungarian-majority settlements are characterized by limited everyday exposure to Ukrainian, urban areas – with their greater linguistic diversity, higher mobility, and, since 2022, increased internal migration – offer more intensive and natural opportunities for state language use. These findings suggest that the primary structural constraint on Ukrainian language acquisition lies in the scarcity of natural linguistic input, a disadvantage that formal schooling can only partially compensate for.

On the other hand, English language outcomes are predominantly linked to the quality of the school environment and students' prior academic performance. Subject grades, self-assessed language competence, grade level, and access to digital resources all showed significant explanatory power, indicating that English acquisition functions largely as a school-based learning process and is less dependent on family-based capital. The results further confirm that students attending church-maintained schools achieve superior English language outcomes, in line with previous research highlighting the role of stronger organizational culture, more stable community norms, and higher levels of student engagement in these institutions.

Overall, the findings underscore that language achievement in Hungarian-medium schools in Transcarpathia must be interpreted across multiple levels. While Ukrainian language competence is primarily shaped by structural social and environmental factors, English language learning is more directly influenced by pedagogical processes and institutional quality. These patterns illustrate the complexity of challenges facing minority education: improving state language competence cannot rely solely on curricular reform, but requires system-level educational policy interventions that are responsive to students' actual linguistic environments. At the same time, the results demonstrate that pedagogical innovation, targeted support programmes, and stable institutional cultures can meaningfully enhance language learning outcomes even in resource-constrained minority contexts.

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