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Elementary School Pupils' Aspirations for Higher Education: The Role of Status Attainment, Blocked Opportunities and School Context

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Elementary School Pupils' Aspirations for Higher Education: The Role of Status Attainment, Blocked Opportunities and School Context

This paper discusses the contributions of variables commonly used within the status attainment and blocked opportunities models in addition to school context variables in predicting pupils' aspirations for higher education prior to the transition to differentiated upper secondary education in Croatia (14-15 years). The findings, arising from a longitudinal design, indicate that the school context does not contribute to the explanation of pupils' aspirations for higher education. In contrast, gender, parental educational aspirations for their child, maternal academic support, the pupil's possession of a work desk, pupil grades and school satisfaction predict aspirations. Arguably, pupils who attend different schools but have similar individual characteristics will likely have similar aspirations for higher education.

Keywords: blocked opportunities; educational aspirations; multilevel ordinal logistic regression; elementary school; school context; status attainment

Introduction

The results of research from a number of countries indicate that the educational aspirations of young people determine their educational, professional and general life choices and outcomes. Young people who hold higher educational aspirations tend to demonstrate greater motivation and higher educational attainment, as do those whose parents and teachers express higher educational aspirations (Gorard, See, and Davies 2012; Gutman and Akerman 2008). In the present paper, we define educational aspirations as the ambitions and goals pupils and parents hold with regards to both immediate and future educational experiences and outcomes.

Educational aspirations have most commonly been studied under one of two research frameworks: the status attainment model (Haller and Portes 1973; Sewell, Haller, and Ohlendorf 1970; Sewell and Hauser 1972) and the blocked opportunities model (e.g. Kao and Tienda 1998). The status attainment model emphasises the role of family background (e.g. parental educational and employment status, parental aspirations for their children) in forming a child's educational and career aspirations (e.g. Ashby and Schoon 2010; Dubow, Boxer, and Huesmann 2009). On the other hand, the blocked opportunities model emphasizes the role of the children's school experience in forming aspirations (Kao and Tienda 1998; Koo 2012). For example, a pupil's negative school experiences might contribute to lower expectations and aspirations for further schooling (Phalet, Andriessen, and Lens 2004).

In previous studies, both models have predominantly been examined with samples of pupils from different minority groups (e.g. Kandel and Kao 2001; Koo 2012; Mau and Bikos 2000; Phalet, Andriessen, and Lens 2004), as well as with samples of pupils of low socioeconomic status (e.g. Berzin 2010; Davaran 2011). They have rarely been examined with general populations of pupils (e.g. Marjoribanks 2002). Although the two aforementioned models have typically been used separately in research (i.e. studies have applied only a single model), researchers have increasingly recognized that both models contribute to current understanding of educational aspirations (e.g. Berzin 2010; Davaran 2011; Gutman and Akerman 2008; Marjoribanks 2002).

Beyond these two models, other variables have also been used in predicting pupils' educational aspirations, including the influence of peers (Buchmann and Dalton 2002), parental involvement (Brasier 2008), social support from teachers, peers, parents and the neighbourhood (Berzin 2010) and social capital (Byun et al. 2012). The effects of various school context variables on educational aspirations have also been examined among primary and both lower and upper secondary school pupils (e.g. Burke and Sass 2013; Hanushek et al. 2003; Nelson 1972). However, there is currently a lack of studies that concurrently examine the effects of status attainment, blocked opportunities and school context on a single pupil sample.

The purpose of the current study was to examine the contributions of variables commonly used within the status attainment and blocked opportunities models, in addition to a number of school context variables, in predicting pupils' aspirations for higher education at the end of Croatian elementary education. In Croatia, elementary education is organised within an 8-year single structure compulsory education programme consisting of primary and lower secondary education. Enrolment in a specific elementary school is determined by catchment area.

Of particular interest in the present study was the examination of this topic in a pupil cohort that was followed longitudinally over a period of two years during which participants were in their final two years of elementary education. This phase of elementary education represents a transitional period for Croatian pupils, where they must decide to which upper secondary school they are going to apply. At the end of elementary education, Croatian pupils can continue their education in one of three types of upper secondary education programmes. General upper secondary education programmes (gymnasium) are four years in duration and prepare pupils for higher education. At the end of the fourth year, gymnasium pupils are obligated to take externally administered State Matura examinations, which serve the dual role of certifying completion of secondary education and qualifying a pupil for entrance to higher education. These programmes do not qualify pupils for a particular profession. Instead, pupils are expected to continue education at the tertiary level. In contrast, four-year VET programmes[1] prepare pupils for the labour market while still allowing for the possibility of continuing education at a higher level if a pupil sits the State Matura examinations. Three-year VET programmes prepare pupils for working in the fields of industry, economy and crafts. A certificate from this type of school does not entitle pupils to further their education in universities and polytechnics (e.g. Eurydice 2019; Palekčić, Radeka, and Zekanović 2015).

In the following paragraphs, a short overview of the theoretical models used in the present study is presented.

Status Attainment Model

For at least fifty years, the status attainment model has been the dominant paradigm for

[1] Exceptionally, some medical school programmes in this category are 5 years in duration.

exploring educational aspirations (Berrington, Roberts, and Tammes 2016; Bohon, Johnson, and Gorman 2006; Hanson 1994; Jencks, Crouse, and Mueser 1983; Kerckhoff 1976; Sewell, Haller, and Portes 1969). In this model, parents are seen as role-models and providers of academic resources for their children. Accordingly, parental socioeconomic status, academic support and educational expectations for one's child are viewed as major determinants of a child's educational aspirations. Children and young persons of higher socioeconomic status, and those who receive higher levels of parental academic support, often have higher educational and occupational aspirations (e.g. Davis and Pearce 2007; Metheny and Mcwhirter 2013; Trusty 2000). The status attainment model has commonly been operationalized through variables such as parental employment status, parental educational status, parental income, parental educational aspirations for their children, parental encouragement, support and praise for their children when they perform well in school, etc. (e.g. Berzin 2010).

Blocked Opportunities Model

Among researchers in the field of educational aspirations, the blocked opportunities model is somewhat less popular than the status attainment model (e.g. Berzin 2010). According to this model, a person's negative experiences with school and the educational system can produce lower aspirations for further schooling (e.g. Kao and Tienda 1998). This model has typically been used in research examining the aspirations of ethnic minority youth, with the assumption that pupils from the same minority group share similar experiences that affect their academic achievement, aspirations and expectations for further schooling (Bowman and Howard 1985; Khattab 2003). Of course, negative academic experience can diminish the aspirations of pupils from the general population as well. In the present study, we expect that the effects of different predictors from

the blocked opportunities model would be larger in samples from the general population of pupils than in highly selected samples of minority pupils. Variables typically used under this model are academic achievement, school satisfaction, school engagement, the subjective probability of educational and economic success, etc. (e.g. Berzin 2010; Kao and Tienda 1998; Khattab 2003).

School Context

The effects of school context on pupils' educational and occupational aspirations have also long been the subject of research (Boyle 1966; Meyer 1970; Nelson 1972). For example, it has been demonstrated that the achievement of peers within the same school can have a positive effect on the achievement of the individual pupil (Burke and Sass 2013; Hanushek et al. 2003).

In his review, Boyle (1966) concluded that the socioeconomic status of a secondary school had an augmentative effect on the aspirations of pupils and that this effect was particularly strong in large cities. Recent studies also acknowledge the effect of the socioeconomic status of a school on the educational aspirations of secondary school pupils (Deil-Amen and Martinez 2015; Engberg and Wolniak 2014).

Furthermore, a large number of studies have addressed the effects of school and class sizes on a number of educational variables (e.g. Howley 1996; Lee and Loeb 2000; Stiefel et al. 2000). In a review of more than one hundred documents examining the relationships between school size and various aspects of schooling, Cotton (1996, 12) concluded that "we who have become convinced of the superiority of small schools have [...] the task of communicating our findings to those who have the power to influence decisions about the size of our schools". Although Cotton did not directly discuss differences in educational aspirations between pupils from small and large

schools, she did identify a number of benefits of attending a small school; e.g. higher academic achievement, more positive student attitudes toward school and particular school subjects, more positive student social behaviour and interpersonal relations, etc. In a more recent review, Leithwood and Jantzi (2009) also highlighted the advantages of small schools in comparison to large schools. Similar findings have also been demonstrated for the advantages of small classes in comparison to large classes (e.g. Finn, Pannozzo, and Achilles 2003; Glass and Smith 1979), although these findings have not always been consistent (Woessmann and West 2006). In a longitudinal study, Krueger and Whitmore (2001) found that attending a small class in an elementary school is associated with an increase in the likelihood that pupils will take a college-entrance exam.

Current Study

The aim of the current study is to examine the contributions of individual and school context variables in the prediction of pupils' aspirations for higher education at the end of elementary education, a period in which pupils must make a choice regarding differentiated upper secondary education. More specifically, we aim to investigate whether school level variables (namely, school grade point average, school size, average class size and real estate prices in the school's cadastral district) contribute to the prediction of pupils' aspirations, alongside variables implied in the status attainment model (parental employment and educational status, pupil's possession of his / her own room, work desk and computer, parental educational aspirations for their child and parental academic support) and blocked opportunities model (pupil's grade point average, school satisfaction, school workload and academic self-efficacy).

Based on the aforementioned theoretical models and existing empirical evidence, we expect that status attainment and blocked opportunities will have a role in explaining pupils' aspirations for higher education. Furthermore, we expect that pupils will feel more inclined to further their education at the post-secondary level if they attend schools with higher grade point averages and where pupils more often enrol in four-year upper secondary education programmes. In Croatia, it is necessary to obtain a four-year upper secondary diploma in order to apply for university and professional studies. Therefore, enrolling in a four-year upper secondary education programme (i.e. gymnasium or four-year VET programme) is a logical step for pupils who aspire to eventually enrol in university or professional studies. Conversely, pupils attending an elementary school with a large proportion of pupils who attain lower grades and enrol in three-year VET programmes might feel more inclined to enrol in a three-year VET programme as a result of peer influence.

Consistent with the findings from previous studies indicating the positive effect of smaller schools and classes on various academic outcomes, we also expect that pupils from smaller schools and classes will have higher educational aspirations in comparison to their peers from larger schools and classes.

Finally, we aimed to determine whether a relationship existed between real estate prices in schools' cadastral districts and the educational aspirations of pupils at those schools. Real estate prices are a proxy measure of the socioeconomic status of families that live in a particular cadastral district (e.g. Coffee et al. 2013). In Croatia, school enrolment is organised by catchment areas. In Zagreb, the enrolment areas of elementary schools generally encompass the nearest neighbourhood of the respective school, although there are some deviations from this rule (e.g.

Valožić, Radeljak, and Žiković 2012). As such, we expect that pupils from wealthier districts will have somewhat higher educational aspirations.

Although male students have been overrepresented in higher education institutions throughout history, this gender bias has more recently decreased or been overturned entirely in many countries (e.g. Statista 2018a, 2018b; University and Colleges Admissions Service 2018). Today, more women than men enrol in and complete tertiary education in the European Union and Croatia (Croatian Bureau of Statistics 2018a, 2018b; Jurviste, Prpić, and Claros 2015). As such, we decided to use gender as a control variable in our analysis.

To the best of our knowledge, this is the first study that concurrently examines the effects of status attainment, blocked opportunities and school context on the educational aspirations of elementary education pupils. In addition, this is one of the first studies examining educational aspirations using multilevel ordinal logistic regression analysis (e.g. Clasemann 2012). This statistical methodology is suitable and often necessary for the analysis of data obtained in cluster samples when the outcome variable is ordinal (Sommet and Morselli 2017), which is often the case in educational aspirations research.

Method

Sample

The data used in the present study were collected as part of the larger longitudinal, mixed model research project "Educational aspirations of pupils at transitional periods of Croatian elementary education: Nature, determinants and change" during the 2016/17 and 2017/18 academic years. The study was conducted in 23 elementary schools in Zagreb, Croatia, representing 18 % of all schools in Zagreb and constituting a random sample stratified by school location. In each school,

pupils from at least two 7th grade classes were randomly selected and invited to participate. Data were collected at three time points with a cohort of pupils that was followed longitudinally over a period of two academic years (time 1: end of the 7th grade, time 2: midpoint of the 8th grade, and time 3: end of the 8th grade). In total, 1050 pupils participated at the first data collection point at the end of the 7th grade, 1031 participated at the second point and 1023 at the third data collection point. All together, 823 pupils participated in all three data collection points. The responses of this latter group are included in subsequent statistical analyses presented in this paper. The proportion of pupils participating in all points from the total number of pupils that participated in the 1st collection point was 78.4%. The time periods between data collection points were equal in length and were both approximately 6 months. At the first time point, the majority of pupils were 13 or 14 years old, while at the last time point, pupils were 14 or 15 years old. The data for all individual level variables were obtained from pupils' responses on questionnaires that were completed at school at each time point. Parents of all pupils participating in the study provided their informed consent prior to administration of the questionnaires.

Measures

In the following paragraphs, the manner in which the various variables of interest were measured via data collected in the pupil questionnaires is described.

Pupils' Aspiration for Higher Education

Pupil responses on the Likert scale item *In the future I want to pursue higher education* (1 – *I*

completely disagree; 2 – *I generally disagree*; 3 - *I neither agree nor disagree*; 4 – *I generally agree*; 5 – *I completely agree*) were used as the outcome variable. Because very few pupils completely or generally disagreed with this statement (11.5 %; Table 1.), these two responses were aggregated so that the outcome consisted of four ordinal categories. Data for this variable were collected at the last time point and, in this way, represent pupils' aspirations for higher education at the end of the 8th grade or, in other words, at the end of elementary school.

Parental Employment and Educational Status

In the questionnaire administered at the second time point, two items were used to collect information about maternal and paternal employment status. In these items, the response options were: *She / He is employed*, *She / He is unemployed*, *She / He is retired* and *I don't know / It doesn't apply to me*. At the same time point, an additional two items were used to gain information about maternal and paternal educational achievement. Possible responses on these items were: *She / He has finished elementary education*, *She / He has finished upper secondary education* and *She / He has finished higher education*. These four items were recoded as dummy variables and used as separate predictors in the analysis.

Pupils' Possessions

At the third time point, pupils were asked to specify whether they had their own room, work desk and computer (three dichotomous items with *no* and *yes* answers). These three items were used as separate predictors.

Parental Educational Aspirations for Their Child

At the first time point, pupils were asked to specify whether their parents expect them to enrol in

higher education and whether their parents would be satisfied if they completed VET education (representing two Likert scale items: from 1 – *I completely disagree* to 5 – *I completely agree*). These two items were used as separate predictors.

Parental Academic Support (Jokić et al. 2007)

At the third time point, maternal and paternal academic support for the pupil were measured separately using a Likert scale consisting of 10 items (e.g. *To what extent does your parent help you to study and do homework?*; 1 – *not at all* to 5 – *very much*; α_{mother}=.805; α_{father}=.861). For both item sets, average results were used as two separate predictors.

Grade Point Average (7th grade)

At the first time point, pupils were asked to indicate their final school grades (ranging from 1 – *insufficient* to 5 - *excellent*) for all school subjects in the 7th grade. Based on this information, a grade point average was calculated for every pupil.

School Satisfaction

At the third time point, pupils' satisfaction with school was measured using a single item: *I like to go to school* (Likert scale: 1 – *It doesn't apply to me at all* to 5 – *It completely applies to me*).

School Workload

At the second time point, pupils' estimates of their school workload were measured using three items (e.g. *I have too much homework*; Likert scale: 1 – *I completely disagree* to 5 – *I completely agree*; α=.744). The average result on all three items was used as a predictor.

Academic Self-Efficacy (Jokić et al. 2007)

At the first time point, pupils' academic self-efficacy was measured using a Likert scale consisting of five items (e.g. *I think I'm a successful student*; 1 – *It doesn't apply to me at all* to 5 – *It completely applies to me*; α =.821). The average result on all five items was used as a predictor.

School Grade Point Average

Overall grade point averages (final grade point averages at the end of 5th, 6th, 7th and 8th grades) for all pupils from the generation previous to the cohort participating in this study (i.e. who completed elementary school in 2014) were calculated for every school included in the sample. This data was calculated based on information taken from e-Matica, an electronic database of all students in elementary and upper secondary schools in Croatia (e.g. CARNET 2018a). In addition, the percentages of pupils who applied for three-year VET programmes, as well as the percentages of pupils who eventually enrolled in this type of upper secondary school programme, were calculated for every school using data from the National Information System of Application and Enrolment into Secondary Schools (NISAESS; CARNET 2018b). School grade point averages were highly negatively correlated with the proportion of pupils who applied for three-year VET programmes (r = -.927) and the proportion of pupils who enrolled in this type of programme (r = -.931). In light of problems with multicollinearity between these three variables, only the school grade point average was used as the predictor in our study.

School and Class Size

For every school included in the sample, data regarding the total number of students and the total number of classes in the 2017/18 academic year were obtained from the School e-Mine, a

database that contains various statistical data about Croatian schools (in Croatian: *Školski e-Rudnik*; Ministry of Science and Education of Croatia 2019). For each school, average class size was calculated by dividing the total number of students in the school by the total number of classes.

Real Estate Prices

In 2018, all Zagreb cadastral districts were ranked according to real estate prices from the period 2012 - 2017 (Tkalec, Vizek, and Žilić 2018). These rankings were used as a predictor in the present study.

Statistical Analysis

Multilevel ordinal logistic regression analysis (e.g. Heck, Thomas, and Tabata 2013) was performed to model the association between individual level (variables representing status attainment and blocked opportunities models) and school level predictors and pupils' aspirations for higher education. The effect of gender was controlled. We used bi-level modelling in order to take into account the hierarchical nature of the sample and the fact that pupils were nested within schools (e.g. Hox, Moerbeek, and Van de Schoot 2017).

The majority of pupils who participated in all three data collection points (84.0 %) provided responses to all items, which produced an almost complete dataset (98.3 % of all cells were completed). The missing rates for individual items were very low (≤ 4.5 %) and, because a missing rate of 5 % or less is usually considered inconsequential for data analysis (Schafer 1999; Dong and Peng 2013), we decided to run a complete-case analysis. Due to the fact that almost

22 % of pupils did not participated in all data collection points, we could no longer assume randomness of the sample. Therefore, we decided against reporting p-values.

The value of the test of parallel lines suggested that the slopes of the predictors were parallel across the categories of the outcome ($\chi^2(50) = 44.41$, Cramer's V = .03). This provided preliminary evidence that an ordinal model might be appropriate for the data (Heck, Thomas, and Tabata 2013).

Multilevel ordinal logistic regression analysis was performed using the mixed-model procedure in IBM SPSS 22 (IBM, 2013). We used robust estimation for the tests of fixed effects to account for possible violations of model assumptions (e.g. Heck, Thomas, and Tabata 2013). The intraclass correlation coefficient value (ICC) was .071 and design effect was 3.49, which suggested that multilevel, rather than single-level, analyses should be conducted (Huang 2018).

Results

Descriptive Statistics

Descriptive statistics of the predictors and the outcome are presented in Table 1. For the majority of pupils, both parents are currently employed and more than half hold a university or professional degree. A large majority of pupils have their own computer and work desk, while nearly two thirds of pupils have their own room. Parental higher education aspirations for their children are relatively high, where parents generally expect enrolment of their child in higher education. On average, pupils estimate their parents' academic support as high.

In the 7th grade, pupils achieved relatively high academic results. Nevertheless, they report that they do not like to go to school and think that their workload is too great. School grade point average was somewhat lower than the grade point average (7th grade) of pupils in our

sample. The number of pupils in a given school and class varies, as do real estate prices across different cadastral districts.

Approximately 77 % of pupils generally or completely agree that they wish to pursue higher education in the future. On a bivariate level, most predictors are associated with the outcome in the expected direction (Table 1).

Multilevel Ordinal Logistic Regression Analysis

Parameter estimates for the multilevel ordinal logistic regression model are presented in Table 2. Girls express a wish to attend higher education more often than boys. For girls, the odds of being in complete agreement with the statement *In the future I want to pursue higher education* instead of one of three lower categories of the outcome are 1.905 greater (1/0.525) than for boys, when other variables are held constant in the model. Likewise, the odds of selecting one of the two combined highest categories of the outcome versus the two combined lower categories are also 1.905 times greater for girls than for boys, when other variables are held constant.

Regression parameters and odds ratios of the predictor variables used in the status attainment model indicate that pupils are more likely to aspire to higher education if: 1) their parents expect them to continue their education in a higher education institution; 2) they have their own work desk and 3) they have higher levels of maternal academic support. In contrast, pupils who are less inclined to pursue higher education more often report that their parents would be satisfied if their child completed a VET programme. Other variables from the status attainment model are not predictors of aspirations.

Among the variables from the blocked opportunities model, only grade point average and school satisfaction predict aspirations. Pupils with a higher grade point average tend to have

higher aspirations, which represents the strongest predictor of aspirations for tertiary education. Pupils whose grade point average is one unit higher than that of their peers are four times more likely to select a higher outcome category. Furthermore, pupils are more likely to aspire to higher education if they like to go to school.

None of the school-level variables predicts educational aspirations. The model classifies slightly more than two thirds of pupils (67.3 %) into appropriate categories of outcome. On the other hand, less complex models containing only 1) gender, 2) gender and status attainment variables, 3) gender and blocked opportunities variables and 4) gender and school context variables (not reported here) classify correctly 59.8 %, 66.3 %, 63.2 % and 60.1 % of pupils, respectively. Consequentially, the contribution of variables used in this study to prediction of pupils' aspirations for tertiary education is rather limited.

[Table 1 near here]

[Table 2 near here]

Discussion

In light of their contribution to the prediction of educational attainment among adults, the exploration of educational aspirations in adolescence is an important research endeavour (e.g. Beal and Crockett 2010). Although there is a vast body of educational aspirations literature, this

is the first study that, to the best of our knowledge, concurrently examines the effects of status attainment, blocked opportunities and the school context on the educational aspirations of elementary school pupils.

The major finding arising from the present study is that none of the school level variables used in our analysis contributes to the explanation of pupils' aspirations for higher education. While it is certainly possible that there are other measures of school context that are better predictors of pupils' aspirations than those included in the present study, we must take into account the relatively small value of ICC (.071), which indicates that the major predictors of aspirations for higher education are most likely situated at the pupil level. This is consistent with the finding arising from the work of Alwin and Otto (1977), in which school context did not affect college plans and occupational aspirations of secondary school pupils. In other words, pupils who have similar individual characteristics but attend different schools will likely hold similar aspirations for higher education. Similarly, differences in educational aspirations are not influenced by pupils' attendance of different schools. These are positive findings for the Croatian education system, where enrolment in the single-structure elementary education system (primary and lower secondary education) is almost exclusively based on a pupils home address. In addition, these results might also be generalised to other educational systems that aim to increase issues of equity in education via enrolment policies. Furthermore, this finding suggests that educational policies aimed at advising pupils of their educational choices should be planned and carried out at the individual, rather than the school, level.

The results also indicate that both status attainment and blocked opportunities models have a role in forming the educational aspirations of elementary school pupils. Specifically, the findings of the present study demonstrate the applicability of these models in a general

population of final-year elementary education pupils in Zagreb, Croatia. This is of particular importance in light of the fact that there are only a few studies exploring educational aspirations for higher education in the general elementary school population. This focus on the general pupil population is especially important in light of steadily growing opportunities for attending higher education for a substantial proportion of a given cohort that, in some countries, arises as a result of the fact that the number of enrolment places in higher education institutions is greater than the number of potential candidates (e.g. Cunska 2010; Jokić and Ristić Dedić 2014; Santa 2018).

From a status attainment perspective, an important finding arising from the present study is that parents can influence their child's aspirations by expressing their expectations regarding the child's educational path and by providing the basic conditions for completing homework and learning (i.e. a desk to work on). The finding that maternal academic support predicts pupil's aspirations is consistent with Brasier's (2008) finding with a similar sample of pupils in the U.S., which demonstrated that parental involvement had a significant positive effect on pupils' desire to finish college in both the 8th and 10th grade (13 and 15 years, respectively).

From an equal opportunity standpoint, it is encouraging that parental employment and educational status did not predict pupils' aspirations. However, it is important to note that the vast majority of parents in our sample are employed. Similarly, because Zagreb represents the dominant and primary university centre in Croatia, higher education is less expensive for families that live in Zagreb in comparison to those that live outside university centres. Indeed, the results might have been different in a more diverse sample.

In the present study, grade point average is the strongest predictor of aspirations. This is not a surprise if one considers the fact that school grades are the most important criterion for the

ranking of pupils in the Croatian secondary school enrolment system. In most cases, Croatian Gymnasium programmes have the highest cut off points in the enrolment process, followed by four-year and three-year VET programmes. As was already mentioned, pupils must attain a four-year upper secondary school diploma in order to pursue higher education at Croatian universities or polytechnics. As such, pupils approaching the end of elementary education likely adjust their aspirations according to current level of school achievement. This finding is relevant for all educational systems in which the transition from lower secondary education to upper secondary education depends predominantly on school grades.

The importance of a positive school experience is indicated in the observed relationship between school satisfaction and aspirations for higher education, a finding that is consistent with those reported in previous studies (Berzin 2010; Kirk et al. 2012). Finally, gender differences in aspirations for higher education are consistent with studies demonstrating the overrepresentation of females in higher education (e.g. Blackhurst and Auger 2008; Jokić and Ristić Dedić 2014).

In conclusion, gender, parental educational aspirations for their child, maternal academic support, the pupil's possession of a work desk, the pupil's grades and school satisfaction predict pupils' aspirations for higher education, while the school context does not contribute to the explanation of aspirations. As indicated by the model's low accuracy, the joint contribution of predictors is not large. The role of the school enrolment policies (enrolment by catchment area vs. enrolment by choice) should be addressed in future studies of the relationships between school context and different academic outcomes.

Limitations of the Study

The findings presented in this paper pertain to a sample representing 8th-grade students living in

Zagreb, the capital and major university centre of Croatia. It should be stressed that it is possible that different predictors would behave differently for pupils living in rural areas and smaller cities without higher education institutions, where lower socioeconomic status represents a greater obstacle for pursuing educational goals.

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Disclosure Statement

No potential conflict of interest was reported by the authors.

Data availability statement

The data that support the findings of this study are available from the corresponding author, JŠ, upon reasonable request.

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Table 1. Descriptive statistics of the variables and associations between predictors and pupils' aspirations for higher education

Variables	M, SD, %	Range	Spearman's ρ / Kruskal-Wallis Test*
Predictor variables			
Individual level			
Gender (%)			
Female	47.6 %		-.204
Male	52.4 %		
Status attainment			
Mother's employment (%)			6.612
Employed	84.9 %		
Unemployed	11.4 %		
Retired	1.1 %		
Doesn't know / Not applicable	2.6 %		
Father's employment (%)			20.550
Employed	88.1 %		1 > 2
Unemployed	3.7 %		3 > 2
Retired	4.9 %		3 > 4
Doesn't know / Not applicable	3.3 %		
Mother's education (%)			63.703
Elementary education	2.6 %		1 < 2 < 3
Upper secondary education	39.6 %		
Higher education	57.8 %		
Father's education (%)			65.916
Elementary education	4.0 %		1 < 2 < 3
Upper secondary education	45.7 %		
Higher education	50.3 %		
Own room (%)	63.9 %		.078

Work desk (%)	87.2 %		.171
Computer (%)	91.5 %		.154
Parents expect higher education enrolment	4.10 (1.21)	1-5	.530
Parents satisfied with VET education	3.53 (1.31)	1-5	-.261
Maternal academic support	3.97 (0.63)	1-5	.147
Paternal academic support	3.74 (0.76)	1-5	.182
Blocked opportunities			
Grade point average (7th grade)	4.35 (0.57)	2.5-5.0	.557
School satisfaction	2.24 (1.17)	1-5	.208
School workload	3.71 (0.88)	1-5	-.021
Academic self-efficacy	3.97 (0.76)	1-5	.374
School level			
School context			
School grade point average	4.18 (2.28)	3.67-4.53	.208
School size	634.45 (184.26)	206-967	-.012
Average class size	21.98 (1.56)	15.85-24.79	.085
Real estate prices (%)			19.214
Not enough information[a]	10.8 %		1 < 2
< 8000 HRK/m^2	23.2 %		1 < 3
8000-9500 HRK/m^2	45.7 %		1 < 4
> 9500 HRK/m^2	20.3 %		2 < 4
			3 < 4
Outcome			
In the future, I want to pursue higher education.			
I completely disagree.[b]	7.8 %		
I generally disagree. [b]	3.7 %		
I agree nor disagree	11.6 %		
I generally agree.	17.7 %		
I completely agree.	59.3 %		

Note. HRK – Croatian kuna. [a] There were fewer than 10 apartments sold in the district in the period from 2012 to 2017. [b] The two negative categories were aggregated to form one category in the analysis. [*] The difference between categories was reported if its effect size was substantial (i.e. if Cohen's d values of both Kruskal-Wallis and Mann-Whitney U tests were ≥ .2; Lenhard and Lenhard, 2016).

Table 2. Multilevel ordinal logistic regression model of elementary school pupils' aspirations for tertiary education

	B	OR
Threshold (0)	-3.593	0.028
Threshold (1)	-2.445	0.087
Threshold (2)	-1.300	0.273
Gender (male)	-0.645	0.525
Status attainment		
Mother's employment[a]		
Unemployed	-0.028	0.973
Retired	0.243	1.275
I don't know / Not applicable	0.453	1.573
Father's employment[a]		
Unemployed	-0.674	0.510
Retired	-0.149	0.861
I don't know / Not applicable	0.171	1.187
Mother's education[b]		
Elementary education	-0.427	0.653
Upper secondary education	-0.186	0.830

Father's education[b]		
Elementary education	-0.412	0.662
Upper secondary education	-0.162	0.851
Own room	0.036	1.036
Work desk	0.457	1.579
Computer	-0.048	0.953
Parents expect higher education enrolment[c]	0.642	1.901
Parents would be satisfied with VET education[c]	-0.147	0.864
Maternal academic support[c]	0.338	1.402
Paternal academic support[c]	0.083	1.086
Blocked opportunities		
Grade point average (7th grade)[c]	1.393	4.029
School satisfaction[c]	0.173	1.189
School workload[c]	0.074	1.076
Academic self-efficacy[c]	-0.041	0.960
School context		
School's grade point average (5th to 8th grade)[c]	0.349	1.418
School size[c]	0.000	1.000
Average class size[c]	-0.084	0.919
Real estate prices[d]		
Not enough information[e]	-0.392	0.676
< 8000 HRK/m^2	-0.117	0.890
8000-9500 HRK/m^2	0.082	1.085
-2LL	8430.401	
AIC	8432.406	
BIC	8436.973	
% of cases classified correctly	67.3 %	

Note. Outcome: *In the future, I want to pursue higher education.* (0 – *I completely disagree* / *I generally disagree*; 1 – *I neither agree nor disagree*; 2 – *I generally agree*; 3 – *I completely agree*). The reference category is 3 – *I completely agree*. OR = Odds ratio, -2LL = –2 log likelihood, AIC = Akaike's information criterion, BIC = Bayesian information criterion, HRK – Croatian kuna. [a] The reference category is *Employed*. [b] The reference category is *Higher education*. [c] The variable is grand-mean centred. [d] The reference category is > 9500 HRK/m^2. [e] There were fewer than 10 apartments sold in the district in the period from 2012 to 2017. $^{*}p < .05$. $^{**}p < .01$