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# SOCIOMETRIC STATUS OF STUDENTS IN THE UPPER PRIMARY EDUCATION AND RELATION TO THEIR FRIENDSHIP RELATIONSHIP, SOCIODEMOGRAPHIC CHARACTERISTICS AND ACADEMIC ACHIEVEMENT

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#### Abstract

The aim of this research was to examine the connection between sociometric status and school success, the dimensions of friendly relations and some socio-demographic characteristics of students. The research was conducted on a sample of 312 primary school students. By analyzing the dimensions of the quality of relationships among best friends, five sociometric statuses were identified: star student, rejected student, isolated student, controversial student, and average student. Significant differences in school achievement were found between all types of students. Rejected students have significantly lower overall achievement compared to controversial and average students, while star students have the highest share of excellent students. Gender proved to be a significant predictor of sociometric status and overall student achievement where female students were found to have a higher share among more popular students and have better overall performance at the end of the school year regardless of student subcategories by sociometric status.

When examining the relationship between the dimensions of friendships and sociometric status of students, significant findings were found on how students assess their relationships with best friends, but due to the smaller number of individual categories of students in the sample it was found that there is no statistically significant relationship between variables of the dimension of friendly relations which is conceived as a composite variable based on the conducted factor analyzes.

The results of this research indicate a strong connection between the sociometric status and general success of primary school students, while in the context of the connection with the dimensions of friendly relations there is a necessity for expanding knowledge and more extensive research on the relations between students and their sociometric profile, which at this time of the pandemic where the issue of mental health was further actualized, proves to be a high priority in the work of educational institutions.

**Keywords**: sociometric status, dimensions of friendship relations among students, academic achievement, sociodemographic characteristics

# **INTRODUCTION**

Sociometry is a research method used in social sciences to examine the interrelationships of members of a group or social relationships in general. It was developed by Jacob Levy Moreno, an Austrian-American psychiatrist. Using sociometry, Moreno investigated the relationships between social structures and the impact such relationships have on the individual, i.e. on a person's psychological well-being. Cohen et al. (2007) define sociometry through its multiple functions as a research technique that serves to interpret the functioning of a group, as a diagnostic procedure to determine the position of an individual in the group and the position of a group in the wider community, and as a psychotherapeutic technique helping an individual or a group to better adapt. The sociometry procedure can be used to examine various sociometric indices, of which the sociometric status of an individual in a group, intragroup relations, and the degree of cohesiveness or integration of a group are most often used. In and out of school, students spend most of their time with their peers, so their social status and being accepted by their peers are of great importance to them. Sociometric test enables objective observation and analysis of classroom dynamics, as well as reduction of conflicts and improvement of communication in the classroom (Kolak, 2010, 247). Newcomb and Bukowski (1983) classified students according to their social status into four categories: rejected student, isolated (neglected) student, controversial student, and "star" student. Given the social status in the classroom and the ability to detect average students, this paper applies Coie's classification which distinguishes five categories of sociometric status of students in which they are classified depending on the number of selections, i.e. acceptances and rejections by their classmates: popular student, rejected student, neglected student, controversial student, and average student (DeRosier and Thomas, 2003; Klarin, 2006; Kolak, 2010).

A popular student is the same as a star student, i.e. a student with many positive nominations by other students and very few or no rejections, and a rejected student is one with many negative nominations, i.e. many rejections. A student who has many negative but also positive nominations is a controversial student, and one who has few negative and few positive nominations or no nominations at all is an isolated (neglected) student (Klarin, 2006). Rejected and isolated students are considered to have unpopularity status, "class stars" students have popularity status, and average and controversial students have average and controversial status.

A student's need for sociality is primarily developed in interaction with other students, often resulting in different friendly relationships. A friendly relationship with a best friend as a form of interpersonal relationship between two close people is based on mutual attraction, respect, and appreciation, involving support and protection, intimacy, satisfaction, enjoyment of company, and successful problem solving.

In the empirical part of the paper, a questionnaire was used to examine the aspects of friendly relationships, which identified four such aspects (Kolak, Markić and Horvat, 2021). They include intimacy, leisure, highlighting a person's values (as fun and willing to help), and protection.

Intimacy refers to closeness that involves open and honest expression of thoughts and feelings and involves self-disclosure. In order to develop intimacy among friends, a process of self-opening is necessary. In opening ourselves to a friend we share our thoughts, emotions, fears, hopes and desires. We do this with a desire to be understood and accepted.

Leisure implies an aspect that refers to socializing together and engaging in activities of free choice after completing school assignments and daily obligations. Ropuš-Pavel (1999) states that the common values of socializing relate to fun, trust, conversation, understanding, help, humour, reconciliation or, for example, the mere joint spending of young people's time in which they get the opportunity to express themselves.

Highlighting a person's value is describing a friend as a fun person, with whom one can be relaxed and spend quality time, and who is always ready to help. In an interpersonal friendly relationship, a special dimension is the emphasis of a person's value. Quality friendship implies the possibility, desire and need to emphasize the value and importance of the chosen friend.

*Protection* implies expressing care and defending a person in threatening situations and represents the support that an individual receives from close friends and personal perception of such relationship of attachment (Klarin, 2004).

A student spends a large part of their day, but also their leisure time, with their peers, and in socializing with them learns, among other things, how to behave in a peer group. Sociometric or social status of a student is the ranking of their position in the collective, i.e. in the class, determined by sociometrically measured attitudes of other students in the class towards him or her (Krnjajić, 1981). It shows us whether the student is accepted or rejected by the class. Acceptance or rejection of a student in a class depends on his or her peer relationships and acquired friendships in the class and it is therefore important that the student establishes social relationships with peers and that such relationships are of good quality because it will significantly affect their personality development, social behaviour and cognitive development.

#### **EMPIRICAL RESEARCH**

Sociometric test is one of the most suitable instruments for examining interpersonal relationships of small groups (Krnjajić, 1981, 56) such as a class of students, and therefore it was applied in the first part of the empirical research in this paper.

Sociometric test is also a technique of quantitative analysis of an informal structure, which, since we are talking about a classroom, means that it shows what students brought into the classroom from the inside, the relationships they created and it is, in fact, the basis for the functioning of the classroom as a whole (Kolak, 2010, 246).

Based on the review of the reference works, three research goals were set within which the global correlation between the mentioned variables will be examined, as well as the differences between individual types of students in general achievement and in the questionnaire of dimensions of friendly relationships:

- 1. Link between the sociometric status and aspects of friendly relationships
- 2. Link between the sociometric status and student's sociodemographic characteristics
- 3. Link between the sociometric status and student's general achievement

# **RESEARCH RESULTS**

#### Research sample and research instruments

Out of the total sample of 312 elementary school fifth-, sixth-, and seventh graders, there were 147 (47.1%) boys and 165 (52.9%) girls. There were 107 fifth-graders, 108 sixth-graders, and 97 seventh-graders. The ratio between the number of respondents and the final model variables meets the criteria of 10: 1 (Bentler and Chou, 1987), as does the total number of completed surveys required for a multivariate analysis (Hair et al., 1998).

**Table 1** Number of students by sociometric status

		Frequency	Percentage
Star student		48	15.4
Rejected student		82	26.3
Isolated student		12	3.8
Controversial student		27	8.7
Average student		143	45.8
	Total:	312	100.0

"Dimensions of the Quality of Friendly Relationships" questionnaire (Kolak, Markić and Horvat, 2021) used in this study was based on 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), where in the process of the research instrument validation, the corresponding 4-factor structure was determined by a combination of exploratory and confirmatory one validation. First factor is "intimacy" consisting of five statements and is dominant dimension in establishing friendship relationships with over 40% of the variance explained in the model. Dimension "highlighting person's value" consists of five statements, dimension "leisure aspect" consists of three statements and fourth factor "protection" consists of four statements. Four factor model explains 68% of the variance of the tested friendship relationships between students.

#### Link between the sociometric status and aspects of friendly relationships

The first step in the analysis of the results was the analysis of the main components, where the initial questionnaire of 58 items was reduced to a model of 4 factors (components) and 17 items with high indices of acceptability and reliability (Cronbach's alpha 0.96) of extracted factors and components, while Chronbach's alpha scores ranged from 0.83 to 0.94 for individual factors. Accordingly, we used the principal components analysis (PCA) to reduce the number of variables in a way that retains as much variance as possible from the initially given instrument and to determine the dimensionality of the instrument.

In determining the number of factors, the following was evaluated: eigenvalues of unit vectors; points of inflection on the Scree Plot; Monte Carlo - parallel analysis (Watkins, 2000; Velicer et al., 2000), while in the procedures of confirmatory factor analysis, criteria for evaluating goodness-of-fit indices were applied. The first extracted factor with the most significant share of variance is intimacy.

**Table 2** Factor I – Intimacy

Factor	Factor I: Intimacy					
C4	I speak to him/her about many of my emotions.					
C6	I tell him/her my personal and intimate matters.					
C7	I can unburden myself to him/her without holding back.					
C1	I told him/her something about myself that I haven't told anyone else.					
C5	I know all his/her secrets.					

According to the one-way analysis of variance (ANOVA) and all associated *post-hoc* tests, no statistically significant differences (F=1.8, p=0.13) were found between students according to their sociometric status on the intimacy factor.

**Table 3** Descriptive analysis of intimacy level by sociometric status of students

	N	M	SD	Min	Max
Star student	48	4.23	0.78	2.20	5.00
Rejected student	82	3.77	1.22	1.00	5.00
Isolated student	12	3.80	0.76	2.60	4.80
Controversial student	27	3.83	1.23	1.40	5.00
Average student	143	4.03	0.96	1.00	5.00
Total:	312	3.96	1.04	1.00	5.00

N - number of students; M - arithmetic mean; SD - standard deviation; Min - minimum; Max- maximum

As expected, star students achieve the highest levels of intimacy (M=4.23), which is significantly more than rejected (M=3.77), isolated (M=3.8) and controversial (M=3.83) students, but due to relatively small subsamples of isolated and controversial students, the same differences were not shown to be statistically significant aggregately through the ANOVA test, nor in the case of mutual comparisons between individual groups. The distribution of answers at the level of intimacy is in any case significant in star students and shows that almost two thirds of students have a level of intimacy between 4-5 and 30% of them at 3-4 level, while other student types have the same level at 50% of 4-5 and about 20% of level 3-4, with some other prominent shares of the lowest levels of intimacy that are not detected at all in more popular students.

# Results in "highlighting a person's value" factor

Table 4 Factor II – Highlighting a person's value

Factor	Factor II – Highlighting a person's value				
F13	He/she is fun to be with.				
F14	He/she makes me feel relaxed.				
F12	We often laugh together.				
A6	We help each other.				
D4	I can rely on him/her. He/she is a reliable person.				

According to the one-way analysis of variance (ANOVA) and all associated *post-hoc* tests, no statistically significant differences (F=0.56, p=0.69) were found between students in highlighting a person's value according to their sociometric status.

**Table 5** Descriptive analysis of "Highlighting a person's value" factor by sociometric status of a student

	N	M	SD	Min	Max
Star student	48	4.72	0.43	3.00	5.00
Rejected student	82	4.56	0.68	1.00	5.00
Isolated student	12	4.60	0.79	2.20	5.00
Controversial student	27	4.67	0.55	3.20	5.00
Average student	143	4.62	0.56	2.00	5.00
Total:	312	4.63	0.58	1.00	5.00

N - number of students; M - arithmetic mean; SD - standard deviation; Min - minimum; Max- maximum

The factor "Highlighting a person's value" identified minimal differences between students and is the only factor that shows that the same results could be consistent with larger subsamples of isolated and controversial students. The difference between star students and others does not differ by more than 3% of the value according to the absolute amounts on the composite variables and the corresponding descriptive parameters and therefore the possibility of no statistically significant differences due to the specificity of the sample is rejected here.

## Results in "leisure" factor

**Table 6** Factor III – Leisure

Factor III: Leisure aspect					
F5	We spend time together on weekends.				
F2	We visit each other out of school hours.				
F6	We spend time together during school holidays.				

According to the one-way analysis of variance (ANOVA) and all associated *post-hoc* tests, no statistically significant differences (F=1.11, p=0.35) on the leisure time factor between students according to their sociometric status were found either.

**Table 7** Descriptive analysis of "Leisure" factor by student sociometric status

	N	M	SD	Min	Max
Star student	48	4.18	0.90	1.33	5.00
Rejected student	82	4.02	1.02	1.00	5.00
Isolated student	12	3.75	1.36	1.00	5.00
Controversial student	27	4.21	0.88	2.00	5.00
Average student	143	4.21	0.82	1.00	5.00
Total:	312	4.14	0.92	1.00	5.00

N - number of students; M – arithmetic mean; SD – standard deviation; Min – minimum; Max- maximum

Isolated students (M=3.75) stand out in the "Leisure" factor and it is clear that in future research a much larger sample of this group of students will need to be taken in order for the results to generalize and draw some more concrete conclusions about the specifics of isolated students.

#### Results in "Protection" factor

The last factor on which the differences between types of students according to their sociometric status were tested is the factor of *protection* among best friends.

**Table 8** Factor IV – Protection

Factor	Factor IV: Protection				
В6	He/she defends me from others' attacks.				
B5	He/she is ready to stand in my defence where required.				
B4	I care about his/her feelings.				
В9	I show him/her how much he/she means to me.				

According to the one-way analysis of variance (ANOVA) and all associated *post-hoc* tests, no statistically significant differences (F=1.03, p=0.39) were found between students according to their sociometric status.

**Table 9** Descriptive analysis of "protection" aspect by sociometric student status

	N	M	SD	Min	Max
Star student	48	4.42	0.59	2.25	5.00
Rejected student	82	4.15	0.97	1.00	5.00
Isolated student	12	4.27	0.97	2.00	5.00
Controversial student	27	4.39	0.71	2.75	5.00
Average student	143	4.26	0.76	1.75	5.00
Total	312	4.27	0.80	1.00	5.00

N - number of students; M - arithmetic mean; SD - standard deviation; Min - minimum; Max- maximum

In the inferential statistics procedures, with regard to the distribution of data deviating from normal, an analysis of differences between certain categories of students was performed by Kruskal-Wallis test. Due to a smaller number of individual categories of students in the sample, no statistically significant differences were found. The same was determined by correlation analysis, where the *Eta* coefficient confirmed there was no significant correlation between the categorical variable to which students belong and the continuous variable of the dimension of friendly relationships, which are conceived as composite variables based on factor analyses.

However, descriptive parameters as well as the first two factors point out to indicative findings in differences among students with regard to their sociometric status, where rejected

students whose descriptive parameters (M=4.15; Min=1) are significantly lower than others stand out. Although rejected students form slightly more than a quarter of the total sample, due to the specifics of tests and statistical inference it is important to include a larger sample of all types of students so that the number of controversial and isolated students is at least 40-50 students. Such selected subsamples are expected to result in more concrete data that will be representative with these descriptive and associated inferential parameters with statistically significant differences in the presented analyses.

#### Link between sociometric status and sociodemographic characteristics of students

Sociometric status of students considering their gender

Gender proved to be a significant predictor of students 'sociometric status and overall performance, where female students were found to have a higher share of more popular students and better overall performance at the end of the school year, regardless of students' subcategories by sociometric status.

**Table 10** Sociometric status considering the student gender

		Sociometric status of student					
		Star student	Rejected student	Isolated student	Controversial student	Average student	Total
	Number of students	15	46	9	15	62	147
Male	% male students	10.2%	31.3%	6.1%	10.2%	42.2%	100.0%
	% sociometric status	31.3%	56.1%	75.0%	55.6%	43.4%	47.1%
	Number of students	33	36	3	12	81	165
Female	% female students	20.0%	21.8%	1.8%	7.3%	49.1%	100.0%
	% sociometric status	68.8%	43.9%	25.0%	44.4%	56.6%	52.9%

Pearson's chi-square test and Cramer's V-test revealed statistically significant differences (p=0.012) in the distribution of sociometric statuses considering the student gender. According to the descriptive analysis findings (Table 3), it is obvious that female students are twice as likely to be star students (68%) than male students (31%). On the other hand, male students have a significantly higher representation of rejected (56%) and isolated students (75%) than female students.

Sociometric status of students considering the number of children in their immediate family

Pearson's chi-square test and Cramer's V-test are consistent in finding that the distributions of sociometric statuses do not differ (p=0.39) among students with respect to the number of children in the immediate family. However, among the above distributions, which are mostly quite similar, there is one category that stands out individually, but it has not proven statistically significant due to the specifics of the tests for global differences, not just between individual subgroups. These are families with four or more children in which, in addition to the average, rejected students stand out significantly. Namely, 37% of students from the category of families with four or more children have the sociometric status of a rejected student, which in other categories is mostly in the range of 20 to 26 percent.

#### Link of sociometric status and student general performance

Pearson's chi-square test and Cramer's V-test identified statistically significant differences (p=0.000) in the distribution of sociometric statuses with respect to general student achievement. Due to a smaller number of students with a general achievement grade of "good (3)", the representation according to the categories of respondents in Table 5 borders on the assumptions required by chi-square test, but the findings of the sample are expected, statistically significant, and mostly consistent with expectations.

Namely, significant differences in the distribution of sociometric statuses were found between all categories of students with regard to general achievement. Among students who had a general achievement of "good (3)" at the end of last year, there were 73% rejected students, which is the case with 36% of "very good" graded students and 17% of "excellent" graded students. As expected, star students were mostly excellent, which is also the case with isolated students. However, since isolated students make up the smallest share of the sample (N=12, 4% of the sample), their distribution cannot be further generalized. Recent significant results have shown that students with average and controversial sociometric status have a significantly higher share of excellent students than students with very good and good overall performance.

Academic achievement refers to the extent to which students have permanently adopted the curriculum of prescribed knowledge, skills, and habits, developed mental and physical abilities, and formed moral cognition, will and action (Rečić, 2003; Bedeniković Lež, 2009). It covers the outcomes of students' learning and behaviour during a school year, showing the extent to which, the student has achieved specific, previously set, educational goals. Some of the authors who researched the link between academic achievement and sociometric status have in addition checked whether there was a difference between girls and boys in academic achievement (Wentzel and Caldwell, 1997). This has been addressed also by other authors who did not investigate the link between academic achievement and sociometric status (Brebrić, 2008; Koludrović, Radnić, 2013; Macuka, Burić, 2015).

All the research on this and similar topics shows a significant positive link between sociometric status and academic performance (Smiljanić – Čolanović, 1954; according to Bilić, 2001; Lazić, 1959; according to Krnjajić, 1981; Krnjajić, 1981; Austin and Muma, 1965; Li, 1985; Wentzel, 1991; DeRosier et al., 1994; Austin and Draper, 1984; Wentzel and Asher, 1995; Krnjajić, 2002; according to Kolak, 2010).

## FINAL CONSIDERATIONS

In the period of middle childhood, children spend most of their leisure time with their peers where they satisfy the need for intimacy, form an image of themselves, acquire social skills, learn to help, share and cooperate (Klarin, 2006). The school, as an integral part of every student's childhood, has an important role, and the classroom is proving to be an ideal place to make friends. Students spend more and more time with their peers in school and classrooms, and it is extremely important for them to be accepted by their peers. Academic achievement means a successful development of basic life skills, mastering academic content and adapting to the social environment (Zloković, 1998) which is why the student's assessment of personal performance in the form of school grades will affect the quality of their life in school, but also outside it, and their satisfaction with themselves.

Descriptive analyses have shown significant results where star students evaluate their relationships with best friends in all dimensions better than other students, while on the other hand, rejected and isolated students generally achieve lower values on all factors. Isolated and rejected students spend much less time with their peers in their leisure time and do not have the same level of intimacy in their relationships with their friends as other students. However, a positive thing is that they have the same level of support from their friends in the dimensions of protection and highlighting a person's value as other students.

Gender proved to be a significant predictor of sociometric status and overall student achievement where female students were found to have a higher share among more popular students and better overall performance at the end of the school year among all student types according to their sociometric status. This points to the need for specific knowledge and skills on the part of teachers in order to be able to help students in this, for them, very sensitive period of life.

Teachers are an important source of support for students in school and their personality, attitude towards students and the ability to understand and communicate with them are of great importance for establishing a positive relationship, but also for the child's experience of school, their behaviour at school and, ultimately, their academic achievement (Marram, 1971; Kagan and Lang, as cited in Bilić, 2001).

The results of descriptive and inferential analysis, due to the specificity of the sample and selected student subcategories, indicate the need for further research on a larger sample to have a foothold in the structure of student types to confirm the indicative results of the descriptive part of the analysis and to ensure making more specific conclusions on the relation between the sociometric status and dimensions of friendly relationships among students. Correlation analysis of Pearson's chi-square test and Cramer's V-test have shown that the distributions of sociometric statuses do not differ (p = 0.35) between fifth-, sixth-, and seventh-graders.

These results are consistent with some previously conducted longitudinal studies on sociometric status of students considering the class they attend and they investigated whether there was a connection between acceptance by peers in kindergarten and those in school or between acceptance in lower grades of primary school with that in higher grades of primary school (Muma, 1965; Wentzel, 1991; DeRosier et al., 1994; all according to Wentzel and Caldwell, 1997). In addition, the authors concluded there was a significant positive correlation between rejection in the classroom and poorer performance (Zettergren, 2003, as cited in Lubbers et al. 2006), between non-acceptance in the classroom and a higher risk of dropping out of school (Parker and Asher, 1987; Vandell and Hembree, 1994).

If a student is not accepted in the classroom of which he or she is a part, they will highly likely experience school and their education as an extremely unpleasant period of life in which they will be rejected or isolated by their peers. The best friend is the person we trust the most, who is willing to cooperate, who provides protection, support, and compassion (Berndt, 1996), and children without best friends, even when they have friends, show a higher level of loneliness compared to those who have a best friend regardless of their social status (Parker, Asher, 1993).

In order to detect or perhaps even prevent any student in school from growing up and learning in conditions of social isolation or rejection by peers and from its adverse impact on their academic achievement and overall development, systematic monitoring and support to children and their parents is needed. The use of sociometric procedures from the beginning of primary education can significantly contribute to this, with the constant cooperation of teachers and experts to ensure the monitoring of class dynamics and relationships among students is among the priorities of planning and conducting the teaching process and achieving educational goals.

#### **REFERENCES**

- Bedeniković Lež, M. (2009). Uloga majke u školskom uspjehu djeteta. Školski vjesnik. 58(3).
- Bentler, P. M., & Chou, C. P. (1987). Practical issues in structural modelling. *Sociological Methods Research*, 16, 78-117. https://doi.org/10.1177/0049124187016001004.
- Berndt, T. J. (1996). Exploring the effects of friendship quality on social development. In W.
- M. Bukowski, A. F. Newcomb, & W. W. Hartup (Eds.), *The company they keep: Friendship in childhood and adolescence* (pp. 346–365). Cambridge University Press.
- Bilić, V. (2001) *Uzroci, posljedice i prevladavanje školskog neuspjeha*. Zagreb: Hrvatski pedagoško-književni zbor
- Brebrić, Z. (2008) Neke komponente emocionalne inteligencije, školski uspjeh, prosocijalno i agresivno ponašanje učenika u primarnom obrazovanju. *Napredak*. 149 (3).
- Cohen, L., Manion, L., & Morrison, K. (2007). Research Methods in Education (6th ed.). London and New York, NY: Routledge Falmer.
- Hair, J. F., Anderson, R., Tatham, R., & Black, W. (1998). *Multivariate Data Analysis*, 5th Ed Englewood Cliff s, NJ: Prentice Hall.
- Klarin, M. (2004). Uloga socijalne podrške vršnjaka i vršnjačkih odnosa u usamljenosti predadolescenata i adolescenata. *Društvena istraživanja*, 13(6), 1081-1097.
- Klarin, M. (2006) *Razvoj djece u socijalnom kontekstu: roditelji, vršnjaci, učitelji kontekst razvoja djeteta.* Jastrebarsko: Naklada Slap.
- Kolak, A. (2010) Sociometrijski status učenika u razrednom odjelu i školskoj hijerarhiji. *Pedagogijska istraživanja*. 7 (2).
- Kolak, A., Markić I., Horvat, Z. (2021). Who is Your Best Friend? The Dimensions of Quality in a Friendship Relationship. Croatian Journal of Education: Hrvatski časopis za odgoj i obrazovanje, 23. (2021), 3.; 767-793.
- Koludrović, M., Radnić, I. (2013) Doprinos nekih osobnih i socijalnih čimbenika u objašnjenju školskog uspjeha u ranoj adolescenciji. *Pedagogijska istraživanja*. 10 (1).
- Krnjajić, S. (1981) Sociometrijski status učenika. Beograd: Prosveta.
- Lubbers, M. J., Van Der Werf, M. P. C., Snijders, T. A. B., Creemers, B. P. M., Kuyper, H. (2006) The impact of peer relations on academic progress in junior high. *Journal of School Psychology*. 44.
- Macuka, I., Burić, I. (2015) Školski uspjeh mlađih adolescenata: važnost uloge osobnih i obiteljskih čimbenika. *Društvena istraživanja*. 24 (4).
- Moreno, J. L. (1962) Osnovi sociometrije. Beograd: Savremena škola.
- Newcomb, A. F., & Bukowski, W. M. (1983). Social impact and social preference as determinants of children's peer group status. *Developmental Psychology*, 19(6), 856–867.
- Parker, J. G., & Asher, S. R. (1993). Friendship and friendship quality in middle childhood: links eith peer group acceptance and feeling of loneliness and social dissatisfaction. *Developmental Psychology*, 2(4), 611 621. https://doi.org/10.1037/0012-1649.29.4.611

- Rečić, M. (2003) Obitelj i školski uspjeh učenika. Đakovo: Tempo d.o.o.
- Ropuš-Pavel, J. (1999). Samoprezentacija mladostnikove življenske lege pomenaktivne participacije mladostnika v procesu socijalno pedagoške dijagnoze. Master's Thesis. Univerza v Ljubljani: Pedagoška fakulteta.
- Velicer, W. F., Eaton, C. A., & Fava, J. L. (2000). Construct explication through factor or component analysis: A review and evaluation of alternative procedures for determining the number of factors or components. In R. D. Goffin, & E. Helmes (Eds.). *Problems and solutions in human assessment: Honoring Douglas N. Jackson at seventy* (pp. 41-71). Boston: Kluwer Academic Publishers. https://doi.org/10.1007/978-1-4615-4397-8\_3
- Watkins, M. W. (2000). *Monte Carlo PCA for Parallel Analysis (Computer Software)*. State College, PA: Ed & Psych Associates.
- Wentzel, K. R., Caldwell, K. (1997) Friendship, Peer Acceptance, and Group Membership: Relations to Academic Achievement in Middle School. *Child Development*. 68 (6).
- Zloković, J. (1998) Školski neuspjeh problem učenika, roditelja i učitelja. Rijeka: Filozofski fakultet Rijeka.

# ODREDNICE I POTENCIJALNI KORELATI SOCIOMETRIJSKOGA STATUSA UČENIKA U RAZREDNIM ODJELIMA VIŠIH RAZREDA OSNOVNE ŠKOLE

#### Sažetak

Cilj ovoga istraživanja bio je ispitati povezanost sociometrijskoga statusa sa školskim uspjehom, dimenzijama prijateljskih odnosa te s nekim sociodemografskim obilježjima učenika. Istraživanje je provedeno na uzorku od 312 učenika osnovne škole. Analizom dimenzija kvalitete odnosa među najboljim prijateljima izdvojeno je pet sociometrijskih statusa: učenik zvijezda, odbačeni učenik, izolirani učenik, kontroverzan učenik i prosječan učenik. Utvrđene su značajne razlike u školskom uspjehu između svih tipova učenika. Odbačeni učenici imaju značajnije niži opći uspjeh u odnosu na kontroverzne i prosječne učenike, dok učenici zvijezde imaju najviši udio odlikaša. Spol se pokazao kao značajan preduvjet sociometrijskoga statusa i općega uspjeha učenika gdje je utvrđeno kako učenice imaju veći udio među popularnijim učenicima te imaju bolji opći uspjeh na kraju školske godine neovisno od podkategorija učenika prema sociometrijskom statusu.

Kod ispitivanja povezanosti dimenzija prijateljskih odnosa i sociometrijskoga statusa učenika utvrđeni su znakoviti nalazi o tome kako učenici procjenjuju svoje odnose s najboljim prijateljima, no zbog manjega broja pojedinih kategorija učenika u uzorku je utvrđeno kako nema statistički značajne povezanosti između kategoričke varijable sociometrijskih statusa kojima pripadaju učenici te varijable dimenzije prijateljskih odnosa koja je koncipirana kao kompozitna varijabla na temelju provedenih faktorskih analiza.

Rezultati ovoga istraživanja ukazuju na snažnu povezanost sociometrijskoga statusa i općega uspjeha učenika osnovnih škola, dok je u kontekstu povezanosti s dimenzijama prijateljskih odnosa razvidna potreba za proširivanjem spoznaja i opsežnijim istraživanjima o odnosima među učenicima i njihovom sociometrijskom profilu, što se u ovo doba pandemije u kojem se pitanje mentalnoga zdravlja dodatno aktualiziralo, pokazuje visokim prioritetom u radu odgojno-obrazovnih institucija.

Ključne riječi: sociometrijski status, dimenzije prijateljskih odnosa