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THE IMPACT OF CERTAIN SOCIO-DEMOGRAPHIC CONDITIONS ON THE STUDENTS' SUCCESS IN LEARNING

Summary: Educational policies have focused on achieving the learning outcomes of students. The challenge is to determine adequate strategies in teaching and learning and how to achieve efficient and effective educational goals. The key elements in this process are the students, teachers and families with all their determinants. In this paper, we intended to examine some effects of socio-demographic conditions on her success in student learning. The results have shown that there are relations between the determinants: completeness of the family, number of family members, education level of parents, time invested in learning, choice of the school, whether they have internet access at home, and finally average grade that a student achieves. The study can be helpful to makers of educational policies in developing strategies for more effective ways to achieve students' learning outcomes.

Keywords: socio-demographic conditions, family, success in students learning.

Introduction

Educators at all levels of education have held the opinion that the family plays a major role in creating conditions for the development, care and education of young people. Family also more or less has influence on the formation of young people's personality and their behaviour in life and work. It is where the child gains its initial knowledge, skills, habits, character and emotional properties. At the same time, the family provides the conditions for the normal physical, intellectual, social and emotional development of children and youth.

The family is changing as the social conditions in which it exists are also changing. Such conditions, in a time of transition, create an unfavourable environment for learning, and may cause negative consequences for young people. Ackerman (1987) says regarding this: "The personality that develops in adverse conditions is prone to give in to failure, which can cause a loss of self-confidence, difficulties in adaptation, emotional disturbances and deviations". (Ackerman, 1987: 219)

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Students are affected by a number of different factors in the environment in which they grow up, live and learn, and that may be the cause of failure in school. It is believed that the following factors have the strongest effect: family, peers, means of mass communication, social conditions, attitude towards learning and others.

Due to the specific impact it has on the development of a child, the family was placed in the research as a special and very important factor. Generally accepted attitude of researchers is that the family has a significant impact on the development of personality traits, skills important for school learning and success in school, as well as on school performance. Research has focused on determining relationships that exist between family variables and success that the student achieves in school activities. The tendency is to discover the factors that have a positive effect on the achievement of success in school, in order to achieve greater efficiency in learning and find elements for the prevention of failure in school performance. In this paper, we will try to determine the link between socioeconomic factors of students and their success in learning.

Theoretical studies

In the literature, socio-economic status is defined under the current financial income of family, parents education level (the highest achieved level of education) and the status that are linked to a specific profession (Brown, Fukunaga, Umemoto, & Wicker, 1996). In particular, socio-economic factors are housing conditions, educational - cultural status of the family, school distance from home, pressure created on child by other obligations, overworked parents, etc. (Djurisic, 1986: 216).

Monitoring and studying of the causes and consequences in student's achievements (failures) in education should be given continuous social and professional attention. It is common that the failure of children to learn is attributed to their poor intellectual capacity, laziness, idleness, unsatisfactory health condition, low foreknowledge and so on. We are often looking for the causes of their failure in an unstimulated living and working environment, bad family situation, disturbed interpersonal relationships, conflicts between parents, neglecting of children by parents, poor role models in the family and the environment, poor physical, material and other unfavourable conditions for living, working and learning. (Stanic, 1988: 63)

The issue of factors affecting student achievement was developed also by Kocic (1988). He classified them into several groups, depending on their origin. One group of factors is linked to the student, to his ability, motivation, previous knowledge and other. The second group is derived from family conditions (educational level of parents, family environment, and financial situation). The third group consists of those factors resulting from the effects of the broader social environment (cultural level of environment, development of environment, living and working conditions in it, etc.). The fourth group of factors linked to the work of schools and teachers. This classification, by the same author, did not include all the factors that influence the success of students. (Kocic, 1988: 317.)

Here are some factors that are, by Orlovic - Potkonjak (1973), generally taken as the most important for the development of personality:
• the material conditions of life related to socioeconomic situation of families;
• professional level of the parents;

- cultural level of the family;
- family structure;
- changes in the environment;
- aspiration level of parents. (Orlović-Potkonjak, 1973: 215)

Most authors agree that the most important factors are those that can, depending on their quality, positively or negatively affect the development of children's personality, their position and success in school.

A large number of papers and theories is dedicated to highlighting the importance and forms of action of the family to the child, but on the other hand there are very few empirical studies in relation to these theories. The causes are primarily in the numerous difficulties that arise in studying of the family.

Authors Piorkowska - Petrovic (1990) believe that within family there are countless factors which through its activities direct child's development. They note that the family structure is made primarily by: the number of family members, economic and housing conditions, education level and social status of the parents, relations between parents and relations parent – child -(Piorkowska–Petrovic,1990in Grozdanic, 2000: 1). In addition, the involvement of parents in assisting children in learning, control over the work and behaviour of children in their free time, the application of corrective measures and actions is taken as another important factor in the success of students in learning (Stanojlovic, 1982:27).

In our research, we will study some of the factors that affect student achievement. Furthermore, we will observe the connection between these factors and achievement of children in their school activities.

Research

Studying the effects on student achievement is a complex process, because there is no comprehensive set of factors that influence it. However, in the pedagogical practice, socio-economic conditions in the family, are usually referred to as factors that diminish the success and cause learning disabilities in students. This is the focus of our research.

The subject of this research is studying the relations between socio-economic conditions in which students live and the success of students in learning. Achievement of students will be connected with the following variables: the integrity of the family, weekly time spent learning, parents education, employment of parents, number of family members, school choice, and Internet access.

The research was conducted by **surveying** a sample of high school students in Tuzla Canton, in which a total of34 high schoolsoperate. The total number of students in the academic class of 2014/2015 was 20.615, a research sample included approximately 10% of the student population in first, second and third grade.

There were 4223 first grade students, 4894 second grade students and 6468 third grade students. The research sample of 10% of this population includes 2.028 students. At the time of research,using the questionnaire, 1.061 or 5.14% of the students were submitted to survey.

After eliminating incomplete data, the sample comprised 1.040 or 5.04% of students who, at the time of research, attended classes.

The survey was conducted in the second half of the school year 2014/2015. The average score of students was considered in the success at the end of the term, because there are indications that they are more objective than those at the end of the school year.

In addition to questionnaires, respondents were also given the notice about the object and purpose of the research, noting that the data will be used solely for the purpose of analysis, in accordance with ESOMAR Code, that not one single data will be used individually, but only as part of a statistical data, and specific information will not be published anywhere.

Focus group used for research were set to satisfy the territorial or geographical distribution of the population of students in the municipalities of Tuzla Canton.

The starting point were the official data available from the archives of the Pedagogical Institute TK, on the number of high school students in municipalities. Using the mathematical division, focus group for research was formed. After reviewing the questionnaires and the analysis of responses, we eliminated extreme cases, so that the focus group was reduced to 907 respondents, or 5.81% of the total number of high school students in Tuzla Canton from I to III grade.

Due to the similarity of conditions in which the education system functions and high schools in Bosnia and Herzegovina operate (human, material and financial resources, socio-political environment and integration processes, and the processes of change), the results of research that are conducted in high schools in Tuzla Canton can be transferred onto the entire area of Bosnia and Herzegovina, and thus obtain additional elements in the creation of adequate educational policies at all levels, starting from school, Canton, entity to the state level of Bosnia and Herzegovina, in the area of planning, programming and measurement of learning outcomes.

Survey results

Our intention was to, on the basis of this proposed methodology of research, get results that will connect the independent varying variables (socioeconomic data) and depending varying variable (student achievement).

For data processing we used the Average Value Method (Walker, 2006, in Agić, 2011). The average value of student's learning success that were obtained are associated with targeted categories of students in the focus group.

The obtained results will be well processed and correlated with results of other authors who have studied this issue.

The integrity of the family - the success of students in learning

The integrity of the family is one of the criteria in the typology of a modern family. According to structural integrity of the family they are classified as complete and incomplete. A complete family is the one with a complete family structure which includes father, mother and children.

Families in which one or more children are living with one parent, father or mother is an incomplete family. Incomplete families are often called families with impaired family structure, deficient or "rump" families.

The incomplete family means growing up with a single parent due to the death of another, departure ("desertion") by one of them, the divorce or birth of a child in extramarital community (Jaksic, 2004:40).

In the deficient families, parents often fail to provide the help that children need, which is essential in the creation of work habits and success achievement.

In The Institute for Educational Research, during one research they discovered the fact that children of divorced parents regardless of their abilities, experience failure in school more than children living with both parents. Studies have shown that out of total sample, 9.11% are children of deficient families, who on average have lower achievement than children who live in a normal family environment with both parents.

In our study, it was shown that the favorable conditions for learning and a significantly better results were achieved by students whose parents live together. (Table 1.)

Status	Number	Excellent	Very good	Good	Sufficient	Insufficient	Average score
Without one parent	17	2	9	2	1	3	3,35
Without both parents	2	0	1	1	0	0	3,5
Parents living together	842	219	344	216	25	38	3,80
Parents living separately	46	11	16	9	5	5	3,50

Tabel 1.: The integrity of the family - the success of students in learning

When it comes to the integrity of the family there is common position among researchers.
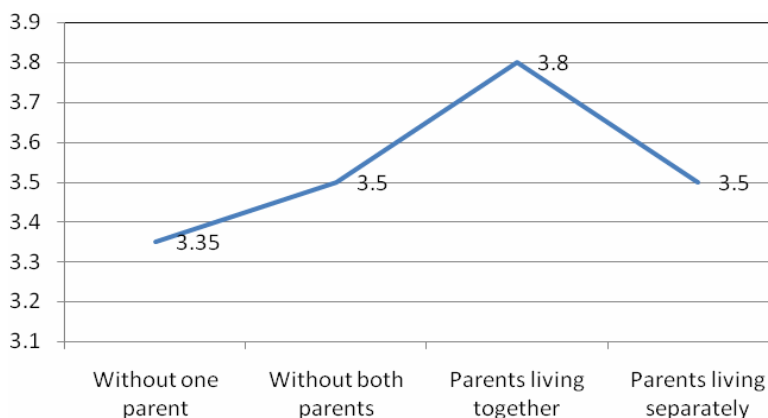
Graph 1.: The integrity of the family - the success of students in learning

There are differences in the understanding and results of the research on its impact on student achievement in school. Some argue that there is a connection, and a larger number of researchers, suggests that the integrity of the family has no significant impact on the student achievement.

Some research has shown that "the cohesion of the family is in connection with school engagement of students (adolescents), but not directly with their academic achievement (Annunziata et al., 2006, in: Oljaca, Erdes-Kavecan and Kostovic, 2012), indicating that parental supervision and parental educational style are key to achieving academic success (Steinberg et al., 1992, in Oljaca, Erdes-Kavecan and Kostovic, 2012). It has to be taken into account that the educational atmosphere in the family was not involved in this research. Investigating the importance of this variable, remains as task for some future research (Oljaca, Erdes-Kavecan and Kostovic, 2012).

The results that are obtained may be helpful to education authorities at all levels to develop programs to support children with incomplete families with the aim of additional educational aid in learning and achieving educational goals.

The number of family members - student success in learning

When it comes to the influence of the number of family members on the student's achievement in school there is no uniform opinion on the subject. While some researchers suggest that the number of family members is in inverse proportion to the achievement of students in school, others point out that the size of the family, regardless of socioeconomic status, has no significant impact on the achievement of students in their school activities. This is especially true for wealthy families who can provide optimal learning conditions for their children.

Our research has shown that the best success is achieved by students who come from families with two children (Table 2). This is in accordance with the results of research conducted by Adamovic (1968) which showed that, on average, the best success is achieved by children from families with four members, and just behind them are children from the three-member families (Adamovic, 1968: 213)

Number of family members	Number	Excellent	Very good	Good	Sufficient	Insufficient	Average Score
2 - 3	157	31	67	47	3	9	3,69
3 - 4	473	131	195	108	16	23	3,84
4-5	170	43	72	43	7	5	3,83
>5	81	19	26	23	5	8	**3,53**

Tabel 2.: The number of the family members - the success of students in learning at the end of school year 2014/2015.

Similar results were obtained by Stanojlovic (1982), which showed that the increase of the number of household members reduced success in school performance, and that the best results are achieved by students from four member families (Stanojlovic, 1982: 27) The same author has shown that the most favourable climate for learning is in those families with two

children. Probably because the child that has an older brother or sister can get help and the fact that they can develop a positive competitive climate (Stanojlovic, 1982: 28).

Most of domestic and foreign researchers (E. Fraser, Douglas, Floud, A.Fulgozi, Tolicic, L.Zorman, A.Milic etc.) indicate a correlation between family socioeconomic status and student achievement at the school, with the fact that highest level of impact is determined between the educational level of parents and student achievement, and after this variable following are material, and housing conditions of students (Stanojlovic, 1997: 96).

In the next section we will present the results of research that talk about the relationship between the variables of employment and education of parents and the success of students, children's learning.

Employment / Education of father-- success in learning

Graph 2. and Table 3 present the collected data that show the connection between employment and education of the father and the average score of the students' learning.
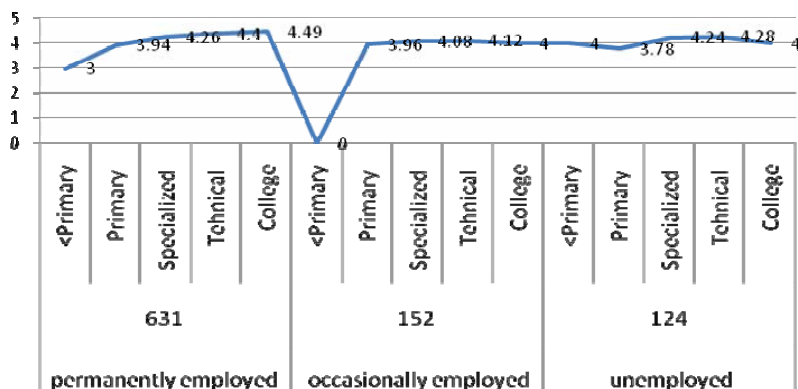
Graph 2: Employment of the father and success at the end of semester 2014/15

Tabel 3: Employment of the father and success at the end of semester 2014/15

Employment	Number of parents	Father's education	Number pf parents	Excellent	Very good	Good	Sufficient	Insufficient	
permanentl y employed	631 70%	< Primary school	1	0	0	1	0	0	3,00
		Primary school	35	8	17	10	0	0	3,94
		Specialized school	292	134	103	51	4	0	4,26
		Tehnical school	216	116	71	29	0	0	4,40
		College	0	55	23	6	3	0	4,49
oc ca si	152 17%	< Primary school	0	0	0	0	0	0	0,00
		Primary school	25	6	12	7	0	0	3,96

		Specialized school	90	32	35	21	2	0	4,08
		Tehnical school	34	14	10	10	0	0	4,12
		College	3	1	1	1	0	0	4,00
Unemployed	124 13%	< Primary school	3	1	1	1	0	0	4,00
		Primary school	27	7	8	11	1	0	3,78
		Specialized school	72	35	21	14	2	0	4,24
		Tehnical school	18	9	5	4	0	0	4,28
		College	4	1	2	1	0	0	4,00

According to the data obtained, there is a direct correlation between the level of father's education and employment and the average score in school of their children (Chart 2), if we neglect the cases of a rather small number of fathers with a university education (Table 3).

The results are more or less expected, since more favorable financial situation in the family can be a good precondition for the creation of a better learning environment. At the same time, it is expected that children with educated parents may find better support in learning.
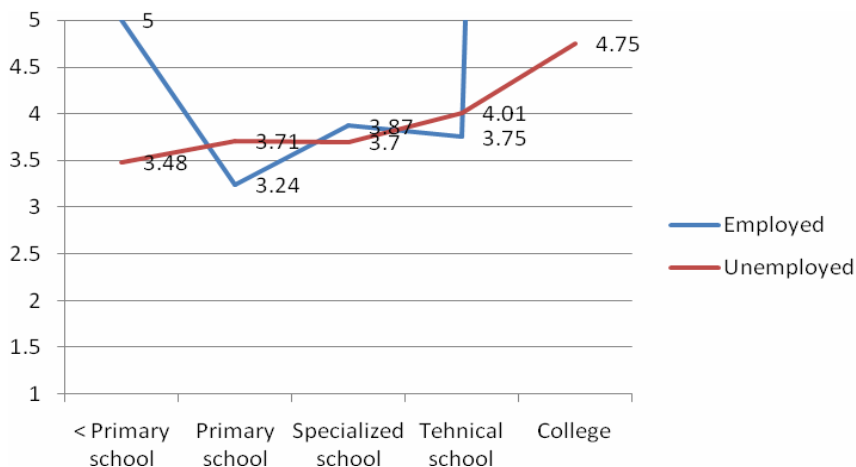
Employment / Education of mother-- success in learning

Tabel 4: Employment of the mother and success at the end of semester

Employment	Number of parents	Mother's education	Number pf parents	Excellent	Very good	Good	Sufficient	Insufficient	
permanently employed	237 26%	< Primary school	1	0	1	0	0	0	4,00
		Primary school	25	8	10	6	1	0	4,00
		Specialized school	91	48	29	13	1	0	4,36
		Tehnical school	77	21	20	13	0	0	4,15
		College	43	44	20	13	0	0	4,40
occasionally employed	68 8%	< Primary school	0	0	0	0	0	0	0,00
		Primary school	15	4	8	3	0	0	4,07
		Specialized school	31	12	12	7	0	0	4,16
		Tehnical school	15	7	6	2	0	0	4,33
		College	7	5	2	0	0	0	4,71
Unemployed	602 66%	< Primary school	21	6	5	10	0	0	3,81
		Primary school	254	94	99	59	2	0	4,12
		Specialized school	192	100	54	30	8	0	4,28
		Tehnical school	131	67	48	16	0	0	4,39
		College	4	3	1	0	0	0	4,75

Education	Number of mothers	Employed	Number of mothers	Unemployed
< Primary school	1	5,00	21	3,48
Primary school	25	3,24	254	3,71
Specialized school	91	3,87	192	3,70
Tehnical school	77	3,75	131	4,01
College	43	3,95	4	4,75

Table 5: Indicators of education / employment of mothers and the success of students in learning

Graph 3. Comparative indicators of success in learning and employment of mothers

Data (Tables 3 and 4) show that mothers unemploymentis almost as represented by the employment of fathers (66% - 70%). Twice less number of mothers find occasional employment than fathers. It turns out that between employment and success in learning there is an inverse proportionality, particularly in the case of mothers with no qualifications and technical schools and colleges (Chart 3).

This is expected because in addition to employed fathers, mothers who are unemployed stay at home to help children with learning. This is managed better by mothers who are educated. The results of the study in the schools of Sarajevo (Gajanovic, 1977) have also shown a significant association between father's or mother's profession and academic success of their children.

With the increasing educational level of the mother, there is an increase in the number of students who achieve better success. This is conditioned by several factors, e.g.: students with more educated mothers also have more educatedfathers, and better financial situation. According to Csikszentmihalyi and Schneider (2000), as well as many other authors, "low economic status of families can directly limit the available resources, opportunities and support necessary to gain education" (Csikszentmihalyi and Schneider, 2000, in Oljaca, Erdes-Kavecan and Kostovic, 2012).

However, about 50% of children whose mothers were housewives and have lower education, achieved also very good and a great success. The cause of this may be more frequent monitoring at home and influence on the formation of working habits. (Gajanovic, 1977: 402) This is confirmed in our study also.

Weekly time for learning - student success

If correlated, time spent in student learning and success at the end of the semester, the trend is expected.

Time spent on learning	Number of students	Excellent	Very Good	Good	Sufficient	Insufficient	Average grade
Up to 1 h	193	24	73	67	12	17	**3,39**
1 to 3	243	51	112	62	10	8	**3,77**
3 to 5	209	60	84	49	4	12	**3,84**
5 to 7	136	40	55	33	1	7	**3,88**
7 to 9	64	28	28	7	1	0	**4,30**

Table 6. Relationship: Weekly learning time - success in learning, semester 2014/15

The results in Table 6 show that almost one in five students spend less than one hour on learning. An interesting fact is that majority of students with excellent score spend between 1 and 3 hours on learning, which makes 12.56% of them. Analysis of the data from the current situation show that with the increase of time spent in learning (up to 1 h, ...from 7 to 9 hours) there is also an increase in the average grade success of students (3.39 ... 4.30) (Table 6).

The selection of school - student success in learning

This area is used to investigate the relationship between the type of influence on the choice of school and success in school. It is interesting to rank the biggest influence on the choice of school. If we look at the average grade of success in learning, it is possible to conclude that the most intense impact on the selection of school have: employment opportunities, personal aspiration and school nearness to home. The weakest impact on success in learning have folowing matters: the urging of a friend, and then the urging of parents.

From the perspective of a professional orientation of students (Resic & Agic, 2013), it is interesting to mention the data obtained in our study, 74% of the students choose themselves which school they will attend, while the influence of the family was present in only 4% of students.

Influence	Number	Excellent	Very Good	Good	Sufficient	Insufficient	Average grade
Personal Aspiration	667 (74%)	312	230	118	7	0	**4,27**
Urging of parents	40 (4%)	13	13	12	2	0	3,93
Urging of friends	25	6	11	6	2	0	3,84
School nearness	30	15	8	7	0	0	**4,27**
Employment opportunities	145 (16%)	73	47	24	1	0	**4,32**

Table 7: Type of influence onthe selection of school - student success in learning

Similar results were obtained in a survey among graduates of secondary schools in Tuzla Canton on the impact of the decision on admission to the university, which was conducted in the Pedagogical Institute of Tuzla Canton (Resic & Agic, 2013).

Results of this study showed that 75.10% of the students decide for themselves which college they will enter, while the influence of parents is reduced to only 5.85%. More devastating is the

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fact that the influence of school, teachers, educational services is reduced to a measly 2.83%, which means that the school does almost nothing on vocational guidance of students and they are left to manage on their own, to be affected by influence of informal groups, companies, media and so on. But this is not the focus of this paper, because research that was conducted did not determine the impact of the choice on success in further education. However, both studies show that almost the same percentage of respondents to a large extent (74% and 75.1%) independently make the decision to continue their schooling, which supports the validity of the study.

Internet access at home - student success in learning

In practice, there is a the stereotypical opinion about the bad impact of excessive use of social networks in the education of students. In this sense, it was logical to assume that the students who have internet access at home will also have lower success. However, we got different results. (Table 8)

Study showed that the success of students was proportional to use of the Internet at the home. Stereotypical thinking was going in the direction that the students who have internet access at home, have lower success, because officially the Internet is not used in school as a regular source of knowledge. However, we got different results.

Internet access	Number	Excellent	Very Good	Good	Sufficient	Insufficient	Average grade
Yes	753 (83%)	206	303	182	24	38	3,82
No	154	27	67	45	7	8	3,64

Table 8: Internet access - student success in learning

It turned out that over 83% of students have Internet access at home and that their average score at the end of the semester increased by 0.18, or about 5% more than the average score of students without access to the Internet (Table 8). It is a sign for pedagogical workers that Internet should not be seen just as a bad influence on student learning, which diverts them from learning, but as a resource for learning and respectable source of knowledge. That should be seriously taken into account when designing learning strategies and teaching.

Conclusion

The aim of the research was to investigate te the relationship between socio-demographic conditions in which the students live and their success in learning. The success of students was brought in connection with the following variables: the integrity of the family, a weekly time for learning, type of school, employment and education of father and mother, marital status of parents, number of family members, school choice and access the Internet at home. Results obtained in this study indicate that the success of students is greater in complete families. Of course, this study did not include testing more complete picture of the development of relations and the atmosphere within the family, which may be the subject of another research.

It turned out that the best results and the most favorable environment for learning are achieved in families with two children. Impacts of the number of family members are ignored in wealthy families, where the impact of the number of family members overlap with optimal economic conditions.

It was inevitable to investigate the influence of education and employment of parents on their children's grades. It turned out that there is a direct correlation between the level of employment and education of the father and the average score in learning of their children. The growth trend of the average score in learning is present in all cases of father's employment (permanent employment, temporary employment and unemployment).We came to the conclusion in the research that the number of fathers with temporary employment is double the number of mothers, while the number of unemployed mothers is almost the same as the number of full time working parents. It turned out that there is an inverse proportionality in employment among mothers and success in learning, particularly in the case of mothers with no qualifications and with secondary and higher education, which was expected because the unemployed mothers had more opportunities to create favorable learning environment for their children.

Furthermore, we observed several factors, which we brought in connection with the average grade in student learning. The research results indicate that the time invested in learning is in direct proportion to the values of average score in learning.

When it comes to the relationship between the ways of school selection and the success of students, it was shown that those students who considered future employement opportunities achieved the better results, also those who made choice on their personal interest and wishes and those who considered proximity of school to their residence. The weakest impact on the success of learning is on those students who chose the school at the urging of friends, and their parents.

The effect of having the Internet connection at home, and the average score in learning is interesting. Students who have internet at home turned out to be "more successful". This result is important to eliminate stereotypes about constant source of bad influence of the Internet on the education of students.

In this paper, we had intended to set up and show connections between some socio-demographic factors of students' success in learning. Those factors cannot be considered in isolation from each other. They act in synergy. Research results may encourage other researchers to create a more complete picture of the impact. Certainly, our research can serve planners and decision makers in education in creating strategies for reducing the adverse effects of socio-demographic impacts and overall improvement of achieving the learning outcomes of students.

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