

## Relationship Between the Adjustment and Academic Performance of the 1st Grade High School Students of Zanjan

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**Abstract:** This research aims to study the relationship between the components of adjustment and the academic performance of the first-grade high school students of Zanjan city of Iran. The predictor variables include the components of educational and social adjustment of the high school students and the criterion variable of the research is the grade point average of the students. The sample of the research included 375 male and female students of the first-grade high school students who were studying in 2013-14. The sampling was performed based on (relative) stratified random sampling method and the sample was selected based on Cochran's method of determining the sample size. Adjustment Inventory for School Student (AISS) was used for collecting the needed data. The collected data were analyzed using Pearson's correlation coefficient statistical method and ANOVA variance analysis test and t-test of independent groups. The results of this research show that there is a positive significant relationship between the educational and social adjustment and the educational achievement of the students. There is no significant relationship between the social adjustment of male and female students, though the male students are more educationally adjusted than the female students; while the educational performance of the female students is higher than the educational performance of the male ones.

**Key words:** Educational adjustment, educational performance, social adjustment, students, AISS

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### INTRODUCTION

The organization and Department of Education is one of the most complicated and biggest organizations of any country and it has close ties with the social, cultural and economic growth and development of the country. Studying the effective factors on the development and improvement of the developed societies shows that all developed countries have had efficient and developed education. Education is a process aiming at the educational achievement. As a dependent variable, educational achievement is affected by several factors including the physical, emotional, social, intellectual and cognitive growth.

In the past, the researchers used to emphasize on effects of mental and cognitive capabilities on the students educational achievement but now a days, they have realized that some other factors such as the family environment, parents' educational level, perception and adjustment are very effective on the educational achievement beside the typical cognitive factors like the mind and intelligence. The students' adjustment can be effective on their failure or successfulness.

The students' adjustment reflects the mental health, strength of thoughts and adaptability power of the person to his/her environment and to his/her surrounding people. The students with mental health have a high degree of self-concept, feel being valuable and see the existence as it is. They live in calmness, sense of security, enthusiasm and hope of life.

As the elementary context for the education, the institute of family forms the attitudes and ideas of the children. Before being affected by the social situation of their environment, the students are adjusted to the conditions of their family. In families with intimate relationships among the family members the children are more adjusted so that their adjustment is more effective in school and prevents their academic failure. The mental and emotional space of the home (particularly in adolescence and early youth periods of the high school) have a considerable effect in the process of the student's adjustment on his/her academic achievement. While opening the doors of colleges and universities for the students, high school is the best space and opportunity for promoting the methods of desirable adjustment in the personal and social life. The educational environment of

the school plays a critical role in facilitating the fulfilment of different basic needs of students such as the activation of the talents and gifts, sense of self-growth, self-knowledge, theism, knowing the others and improving the mental health.

**Problem statement:** Adolescence reflects a deep change cutting the borders between the childhood and adulthood. Adolescence promises the individual and social independence. This period of life causes several problems due to the changes in the physiological growth and puberty and its inconsistency with the social growth. This crisis affects the social and mental evolution of the adolescents with regard to the physiological, physical and mental changes. On one hand, the adolescent is getting distant from his/her childhood world and on the other hand, he/she is eager to attain the youth and adulthood independence. Idealism, Attempts to obtain an independent identity, sense of uncertainty, changes in the moods and temperaments and attempts for self-proof and self-expression as a person different from a child lead to reactions that require the training for social and emotional adjustment so that the adolescent can attain the needed skills for passing this critical period happily and for controlling the internal and external tensions. The formation of the adolescent's adjustment is indeed a set of personality traits resulting from the physical, mental, emotional, intellectual and social growth that is reinforced in the official environment of school apart from the additional trainings of the family, society and peers.

Academic achievement is one of the most important consequences of the social adjustment of the high school students while no significant difference is observed between the male and female students, though the male students are better than the female counterparts in terms of the psychological adjustment.

**Importance of the problem:** High school adolescents are a considerable group of the society of Zanjan City of Iran and undoubtedly, they are very effective in the economic, social and cultural development of the country. The adolescents' adjustment has attracted lots of attention in recent decades by the educators. High school that is considered as a intermediated educational period is a very sensitive period in which the educators can strengthen the mental and social growth of the adolescents and reinforce some drivers such as motivation, self-estimate, human dignity and self-regulation in students and reduce the restrictive factors such as alienation, identity crisis, stress, depression and social phobias. The adolescents in high schools not only have relations with their peers but they have relations with their teachers, educational

leaders, school staff and their parents. Hence, they can get ready for entering higher education, i.e. university through exercising the adjustment. Secondary education is indeed a separate period from the primary school in which the student is breaking his/her dependence to the family and friends and goes toward the independence, competence and self-reflection. During this period he/she manage to fulfill the main goal of the education that is the desirable successfulness. He/she passes the critical period of adolescence by the academic achievement and obtains the needed knowledge, attitude and skills of life for entering higher educational levels.

**Objectives of the research:** The main objective of this research is to identify the relationship between social and educational adjustment on one hand and the academic achievement of the first-grade high school students of Zanjan on the other hand.

**Detailed objectives:**

- To identify the relationship between the social adjustment and the academic achievement of high school students of Zanjan city
- To identify the relationship between the educational adjustment and the academic achievement of high school students of Zanjan city
- To compare the social adjustment and academic achievement of male and female high school students of Zanjan city
- To compare the educational adjustment and academic achievement of male and female high school students of Zanjan city
- To compare the educational performance of male and female high school students of Zanjan city

**Hypotheses of the research**

- There is a significant relationship between the social adjustment and the academic achievement of high school students of Zanjan city
- There is a significant relationship between the educational adjustment and the academic achievement of high school students of Zanjan city
- There is a significant relationship between the social adjustment and the academic achievement of male and female high school students of Zanjan city
- There is a significant relationship between the educational adjustment and the academic achievement of male and female high school students of Zanjan city
- There is a significant relationship between the personal characteristics and the educational performance of high school students of Zanjan city

### **Terms and concepts**

**Theoretical definitions:** Adjustment is the ability of mixing, matching, reconciling and cooperating to oneself, the environment and the others (Fouladi, 2004). Social adjustment denotes the balance between one's own wants and the social expectations and it affects all dimensions of the personal life (Khodayari *et al.*, 2011).

One the other hand, academic achievement is the general and exclusive acquisitive skills in any given academic area measured by the tests or other scales regulated by the teachers for the students (Shoarinejad, 1996).

**Operational definitions:** In order to measure the adjustment we have used the Sinha and Singh's Adjustment Inventory for School Students (AISS). The obtained score of any respondent of the educational and social adjustment questionnaire determines the level of his/her educational and social adjustment and the total obtained score of the respondents show the general level of adjustment of the student and high school.

**Academic achievement:** We relied on the point average of the first exams of the first-grade high school students (2013-2014) and the point average of the previous educational year.

### **Variables of the research**

**Criterion variable:** Educational performance (educational achievement) based on the first exams of the first-grade of high school.

**Predictor variable:** Educational and social adjustment components of the first-grade high school students.

**Moderating variable:** Students' gender, parents' job and educational level, number of family members, ordinal number of the student in family members, districts 1 and 2 of Zanjan city of Iran.

**Control variable:** Age and the educational grade are the control variables of this research, so that students of the first-grade in 15-16 years old were selected as the population and sample of research.

In the educational system, the academic achievement means to fulfill the predetermined educational goals of the educational courses. From the biological point of view, adjustment is a fundamental characteristic of any alive creature that protects him in process of the natural selection. In case of human beings, the adjustment helps them to live and survive. In psychology, the adjustment

refers to the behavioral process of balancing conflicting needs, or needs against obstacles in the environment. From the sociological point of view, adjustment refers to the desirable relationship of the person in society. It is consistent with all behavioral learning theories, Gestalt theory, conceptualization, social learning, phenomenology, functionalism and the religion of Islam as to be peaceful and tolerant.

According to Abraham Maslow, the well-adjusted people will experience more successful growth during their formation and they can achieve the highest level of growth, i.e., self-actualization.

### **Effects of high school education on the adolescents' adjustment:**

The students' adjustment to themselves, their god, their environment and others cannot be formed without paying attention to the educational environment of the family, school and society in general and the interaction between the teacher, student and environment in particular. The students' actions and reactions is conducted in the adjustment of the questions, preparing the answers, their readiness for doing the classroom exercises and learning the social and educational activities and forming the educational camps and groups under the supervision and guidance by the teachers of the high school. High school is one of the effective environmental factors in shaping the personality and making the adolescents adjusted. High school is a place for teaching the adjustment skills in students. The socialization process of the students is performed through teaching the scientific and technical skills, paving the grounds for group cooperation, making the adolescents responsible, balancing the personality and growth of students and promoting their adjustment in the high school.

School in general is a suitable place for different programs of preventing the emotional and mental problems so that a considerable part of the task of schools is to teach the social and personal adjustment to the children. School is the best space and opportunity for teaching and promoting the logical adjustment in the social life. Teachers can apply effective approaches for sending the message of the social adjustment through reinforcing the positive things and analyzing the deterrent factors in theory and practice. To do this, the teachers have to empathize to the students in the high school classrooms with their thought, behavior and words. They have be a role model of the suitable thought, words and deeds as a set of interconnected factors (Karamipour, 2012).

Competence and self-reflection are very important characters that can push the students forward to attain the desirable success in education for passing the critical

period of the adolescence through the optimized academic achievement to obtain the needed knowledge, attitudes and skills for entering the higher educational levels.

## **MATERIALS AND METHODS**

Since this research aims at assessing the level of social and educational adjustment of the first-grade high school students and studying the relationship between the adjustment and the academic performance of the students besides comparing the social and educational adjustment of the male and female students, thus this study is a practical research with regard to its objectives. Moreover, it is a quantitative research based on its data collection method. Additionally, this study is a descriptive-correlative research with regard to its nature in which the relationship between the social and educational adjustment variables (as predictors) and the educational performance (as the criterion) are investigated.

**Statistical population of the research:** Statistical population is a set of units that have one or some features in common. The statistical population of this research includes all students of the first-grade high school in districts 1 and 2 of Zanjan city in the educational year 2013-2014. The total population of the research was equal to 5065 students among which 2588 female and 2477 male students were studied in the high schools of the mentioned city of Iran.

**Sample and sampling method:** Sample of research refers to that part of each population that represents the whole population. The condition of being representative means that all features of the population, particularly those features that are important for the research exist in the sample with the same proportionality with the whole population so that the results of the research can be generalized to the whole statistical population. Since the population of this research has not a homogenous and congruent structure and the number of male and female students were different in the two districts of the research on one hand and since we tried to select the sample in a way that proportionality of the sub-groups exist in the sample as they are in the population, hence we used the stratified random sampling method. That is, the percentage of the randomly-selected students of each district and gender are equal to the percentage of that group in the population. Thus, for example if a group forms 8% of the population, then this group will form 8% of the sample as well.

This sampling method is mainly used in the researches where the researcher intends to compare different sub-groups. In such a case, any other sampling method will lead to wrong results regardless of the analysis method of the collected data.

Considering the total number of 5065 students in the statistical population, the distribution of the subjects shows that 1109 female and 1379 male students were studying in district one and 1479 female and 1098 male students were studying in district two the percentage of each group in the population and consequently the percentage of that group in the sample were as follow: 21.89% of female student in district one; 27.22% of male students in district one; 29.20% female students in district two and 21.67% of male students in district two.

**Sample size:** The sample size of the research was determined based on the Cochran's equation and the samples were selected randomly. The analysis unit of this research is the classroom. The Cochran's equation is one of the most popular and frequent methods for calculating the size of the statistical sample. Using this equation, the sample size of this research is equal to 357 students with error level of 5%. This sample contains 79 female student of the district one, 97 male students of the district one, 104 female students of the district two and 77 male students of the district two.

**Data collection method:** From the very beginning of his/her research every researcher looks for needed data and information about the subject of the study. In this research we first reviewed the available literature. The written documents including the books, dissertations, articles and journals, the press and the valid scientific websites were the basis of the literature review in order to collect the needed information.

The needed data was collected from the valid resources of the Education Office of Zanjan province and its associate offices in districts one and two. Moreover, we distributed our questionnaire among the subjected students. In this regard, we first acquired the relevant permissions from the authorities of districts one and two of the education office and then we referred to randomly selected schools to conduct the standard inventory of school students on the samples of the research. Then using Statistical Package of Social Science (SPSS Software), we converted the collected data to analyzable statistics and finally, we concluded the analyses. In general, we have used different methods depending on the needs of each part of the research.

Table 1: Adjustment in terms of the classes in social and educational dimensions

Dimension	Class	Description	Domain of changes	
			Male	Female
Social	A	Very good	2 and lower	2 and lower
	B	Good	3-4	3-5
	C	Normal	5-7	6-7
	D	Weak	8-10	8-10
	E	Very weak	11 and higher	11 and higher
Educational	A	Very good	2 and lower	2 and lower
	B	Good	3-4	3-4
	C	Normal	5-7	5-7
	D	Weak	8-10	8-10
	E	Very weak	11 and higher	11 and higher

Adopted from AISS questionnaire (for high school students) by Sinha and Singh (1993), translated by Karami

**Instrument of collecting and assessing the data:** Data gathering instrument: In this research we have used the researcher’s observation, studying the documents for determining the basis of the research and personal information questionnaire and AISS inventory for assessing the variables of the research. Moreover, in order to investigate the academic achievement we have relied on the point average of the first exams of first-grade high school students, i.e., the respondents of the questionnaire.

Adjustment Inventory of High School Students (AISS): This inventory that is used for the high school students was first formulated by Sinha and Singh (2001 translated by Karami. AISS questionnaire separates well-adjusted students from the ill-adjusted students in social, educational and emotional dimensions. It is formulated for 14-18 year old students. AISS questionnaire contains 60 questions, though in this research we have only used 40 questions relating to social and educational adjustments shown in Table 1.

**RESULTS AND DISCUSSION**

**Descriptive data and statistics:** As Table 2 shows, the highest number of respondents belongs to the female students of district two. The point average of last year of 229 students was recorded as between 17.1-20 while the number of students of first-grade high school with the same point average at the first exams was recorded as equal to 115 students, showing the academic failure of the students. In other words, for the point average of 17.1-20, we observe an academic failure from 64.1-24.6% (Fig. 1 and 2). Table 3 shows, the majority of students are the first or second child of their family and they live in families with 4-6 family members (80.4%).

According to the Table 4, the mother of most students has been illiterate or elementary (59.9%), the father’s educational level of the most students has

Table 2: Absolute frequency distribution and the percent of the students in terms of gender, district, total point average of previous year and total point average of the first exams of first-grade high school students (N = 375)

Variables	Level	Absolute frequency	Percentage	Cumulative (%)
Gender	Female	183	51.3	51.3
	Male	174	48.7	100
District	One	176	49.3	49.3
	Two	181	50.7	100
Last year point average	12-15	46	12.9	12.9
	15.1-17	82	23	35.9
	17.1-20	229	64.1	100
1 <sup>st</sup> grade point average	12-15	154	43.1	43.1
	15.1-17	88	24.6	67.8
	17.1-20	115	32.2	100

Table 3: Absolute frequency distribution and percent of the students in terms of the ordinal number in family and the number of family members (N = 375)

Variables	Levels	Absolute frequency	Percentage	Cumulative (%)
Ordinal number	1-2	261	73.1	73.1
	3-4	54	15.1	88.2
	5-6	32	9	97.2
	>7	10	2.8	100
Number of family members	3	22	6.2	6.2
	4-6	287	80.4	86.6
	>7	48	13.4	100

Table 4: Absolute frequency distribution and percent of their parents’ job and educational

Variables	Levels	Absolute frequency	Percentage	Cumulative (%)
Mother’s educational level	Illiterate/elementary	214	59.9	59.9
	secondary	53	14.8	74.8
	High school/college	82	23	97.8
	Bachelor or higher	8	2.2	100
Father’s educational level	Illiterate/elementary	184	51.1	51.5
	secondary	69	19.3	70.9
	High school/college	84	23.5	94.4
	Bachelor or higher	20	5.6	100
Mother’s job	Housewife	333	93.3	93.3
	Employed	17	4.8	98.3
	others	7	2	100
Father’s job	Self-employed	244	69.3	68.3
	Employed	82	23	91.3
	Retired	19	5.3	96.6
	Others	12	3.4	100

been illiterate or elementary as well (51.5%); the fathers of most students have been self-employed (68.3%) and the mothers of the most students have been housewives.

The obtained results of Table 5 shows that the mean values of academic achievement (the point average of the last year) is equal to 17.69 and the point average of the first-grade of high school is equal to 15.57. The minimum point average of the last year is equal to 11 and its maximum is equal to 20 while these point average for the first-grade are equal to 7 and 20, respectively.

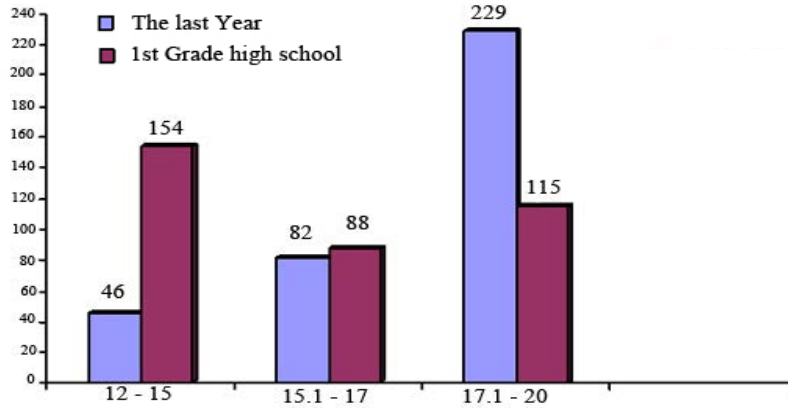


Fig. 1: Frequency distribution of the samples in terms of the point average of students in last educational year and the first exams of high school

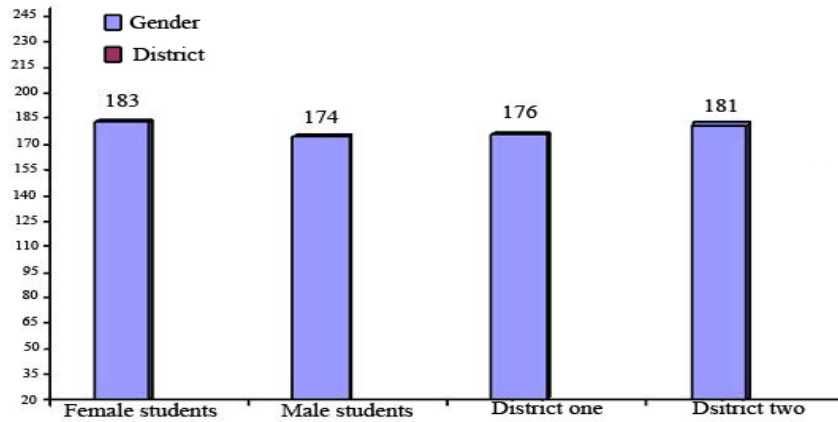


Fig. 2: Frequency distribution of the samples in terms of gender and district

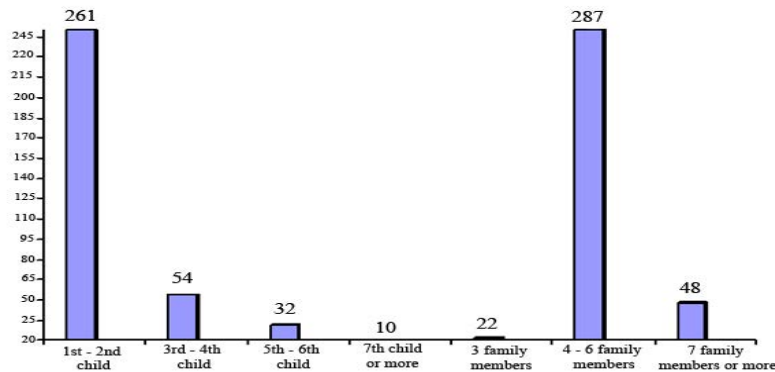


Fig. 3: Frequency distribution of the samples in terms of their order in family and the number of family members

Table 6 shows, among 375 male and female students, the averages of the social and educational adjustments are equal to 6.38 and 7.39, respectively. Moreover, the standard deviation and variance of the

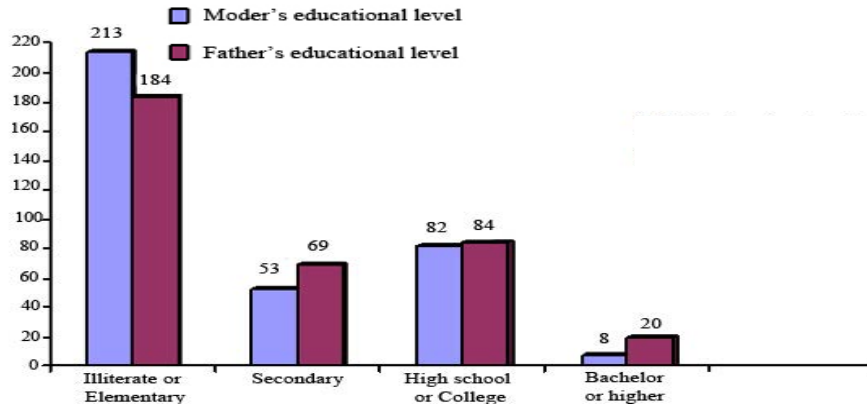


Fig. 4: Frequency distribution of the samples in terms of their parents' educational level

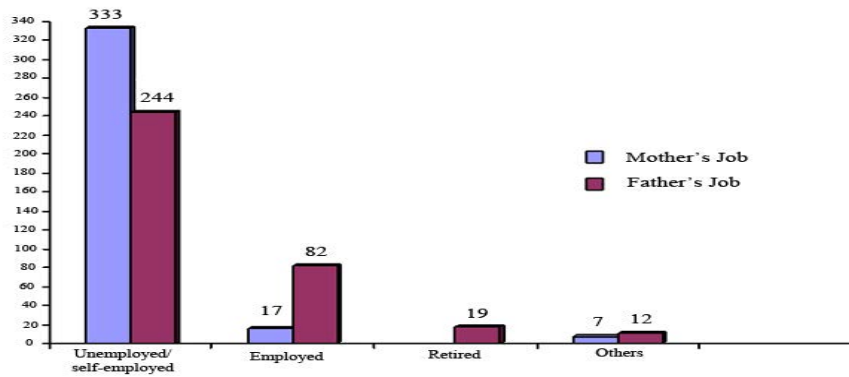


Fig. 5: Frequency distribution of the samples in terms of their parents' job

social and educational adjustments are equal to 3.32, 3.90, 11.06 and 15.25, respectively. The minimum and maximum scores of the social and educational adjustments are equal to 1, 0, 16 and 18, respectively.

Table 7 shows the distribution of the sample in terms of the social adjustment on a scale of 5 points: “very good”, “good”, “normal”, “weak” and “very weak”. According to the values of the Table, 12.2% of the boys and 8.7% of the girls have a very weak social adjustment; 21.9% of the girls and 24.3% of the boys have the weak social adjustment; 26.2% of the girls and 31.8% of the boys have the normal social adjustment; 32.3% of the girls and 20.4% of the boys have the good social adjustment; and finally, 10.9% of the boys and 11.3% of the girls have a very good social adjustment. shown in Fig. 6 and Table 7.

Figure 7 shows the distribution of the sample in terms of the educational adjustment on a scale of 5 points: “very good”, “good”, “normal”, “weak” and

“very weak”. According to the values of the Table, 23.8% of the boys and 22.3% of the girls have a very weak educational adjustment; 21.3% of the girls and 29.3% of the boys have the weak educational adjustment; 19.1% of the girls and 20.1% of the boys have the normal educational adjustment; 5.5% of the girls and 10.2% of the boys have the good educational adjustment; and finally, 6.3% of the boys and 10.4% of the girls have a very good educational adjustment.

As the Table 8 shows, the mean and variance of the variables of social adjustment, educational adjustment and academic achievement are equal to 6.38, 7.39, 11.06, 15.25 and 8.18, respectively. Moreover, the standard deviation of the variables of social adjustment, educational adjustment and academic achievement are equal to 2.32, 3.90 and 2.86, respectively.

Undoubtedly all human wonderful achievements are the results of learning. The environment and

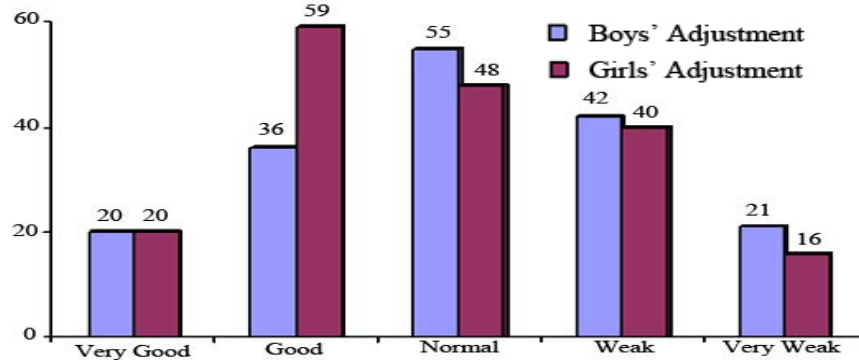


Fig. 6: Distribution of the samples in terms of the boys' and girls' social adjustment

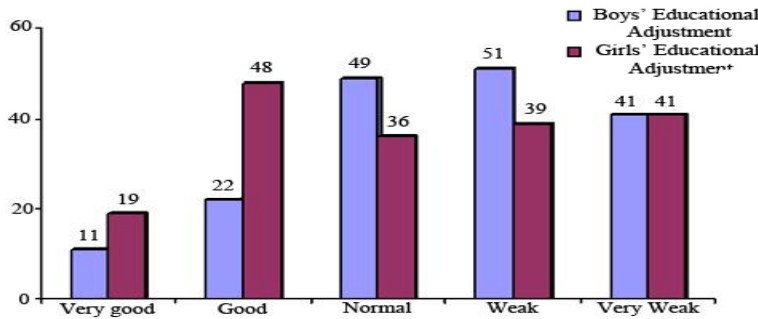


Fig.7: Distribution of the samples in terms of the boys' and girls' educational adjustment

Table. 5: Descriptive statistical indicators of the variable of point average of the last year and the point average of the first exams of first grade

Variable statistical index	Point average of the last year	Point average of 1st grade
N	378	375
Mean	17.69	15.57
Median	18	15.80
Mode	15	14
Min.	11	7
Max.	20	20
SD	1.81	2.86
Variance	3.29	8.18
Skewness	-0.72	-0.43
Kurtosis	-0.04	-0.30

Table. 6: Descriptive statistical indicators of the variable of social and educational adjustment in the subjects

Variable Statistical index	Point average of the last year	Point average of 1st grade
N	375	375
Mean	6.38	7.39
Median	7	6
Mode	6	8
SD	3.32	3.90
Variance	11.06	15.25
Skewness	0.70	0.40
Kurtosis	0.391	-0.369
Min.	1	0
Max.	16	18

whatever in it are always changing and the men are always attempting to learn more knowledge and acquire more skills in order to be coordinated and matched with those changes or to encounter them, to understand those changes and finding suitable solutions and to adjust and survive. As a matter of fact, most of the human competences are acquired through the learning. By learning the human survives. His intellectual abilities are grown and activated through learning. In sum, all human achievements are the result of learning.

One of the basic criteria for the efficiency of the education system of any country is the academic

achievement of the students. Consequently, each educational system attempts to identify the effective factors on the academic achievement of the students in order to make them grown, to find suitable solutions for the available problems and to achieve its goals by making the students grown. There are several factors that affect the process of learning and educational achievement. Investigating the academic achievement of the students faces several complexities and dynamics. In this study we focused on one of such dynamics, i.e., the adjustment. In this regard, we tried to review the available literature and to compare



**Table. 7: Statistical indicators relating to the comparison between boys' and girls' social adjustment**

Dimension	Class	Description	Domain of changes	Frequency	Percentage
Boys' Social adjustment	A	Very good	2 and lower	20	11.3
	B	Good	3-4	36	20.4
	C	Normal	5-7	55	31.8
	D	Weak	8-10	42	24.3
	E	Very weak	11 and higher	21	12.2
Total				174	100
Girls' social adjustment	A	Very good	2 and lower	20	10.9
	B	Good	3-5	59	32.3
	C	Normal	6-7	48	26.2
	D	Weak	8-10	40	21.9
	E	Very weak	11 and higher	16	8.7
Total				183	100

**Table. 8: Mean and Standard deviation of the predictor and criterion variables**

Variables	N	Min.	Max.	Variance	Mean	SD
Social adjustment	357	1	16	11.06	6.38	3.32
Educational adjustment	357	0	18	15.25	7.39	3.90
Academic achievement	357	7	20	8.18	15.80	2.86

our own findings with previous studies so that we can come to a conclusion. In following section we first explain the results of the hypotheses and then, we conclude the discussion and suggest some ideas for further researches.

**Explaining the descriptive findings:** The obtained results of the research about the individual characteristics of the subjects showed that the majority of students of public and private high schools of Zanjan were among the first or second children of the families with four to six family members. The father's of the most students were self-employed with elementary educational level. Moreover, the mothers of most students were housewives with elementary educational level.

The point average of the last year (before high school) of the students was equal to 17.5 that seem good. The point average of the first exams of high school for the respondents was equal to 15.5 that seem normal.

The obtained mean of the respondents in social adjustment was equal to 6.38 ("good") and the obtained mean of the respondents in educational adjustment was equal to 7.39 (again "good").

### CONCLUSION

In general, the studies have shown that the academic performance and the adjustment of the students have mutual effect on each other. In other words, those students who have a higher level of adjustment have a better academic performance. The students with high level of adjustment can match themselves with the psychological conflicts and stresses. On the other hand, during the process of

adjustment, when the person faces a new situation he/she refers to his/her available schemes in his cognitive system and processes the saved experiences and so he/she manages to show suitable reaction to that conditions. The adolescents who are more adjusted to the society school and peers can have a better control over their behavior and they have a higher academic performance than their ill-adjusted peers. Moreover, due to some characteristics such as the expectations of themselves, knowing the goals of life and realistic approach toward their goals, the adjusted students manage to choose suitable academic goals and attempt to fulfill those goals as far as they can to attain the academic achievements. Indeed the human reduces his/her stresses, tensions and depression and guarantee their mental health and pave the way of their success by adjusting to the new situations.

Different studies on the adolescents' problems show that the teachers believe that ill-adjusted children and adolescents are less ready for learning and they have weaker performance, less academic achievements and more dropouts than the well-adjusted students. Moreover, such adolescents are weaker in terms of their social skills, they are less popular among the peers and they are more chaotic in processing the social information including hostility against the peers' intents and they show more aggressiveness and less problem-solving skills.

Since publishing such results can lead to the improvement of the students and promotes their academic performance, it is suggested to conduct more researches on different samples with more diverse cultural, social and geographical backgrounds. High school period creates the best space and

opportunity for investigating and teaching the methods of social and educational adjustment of the adolescents.

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