



## The Effectiveness of Empathy Training on Academic Adjustment and Social Happiness in Elementary Students

Seyed Hasan Sajedi<sup>1\*</sup>, Shima Shahmaravand<sup>2</sup>, Rahil Sadat Zare<sup>3</sup>, Faezeh Shokri Javan<sup>4</sup>

1- MA, General Psychology, University Of Eyvanakey, Semnan, Iran

2- M.A. Family Counseling, Department of Counseling, Faculty of Social Sciences, University of Kurdistan, Kurdistan, Iran

3- MA, Guidance and Counseling, West Tehran Branch, Islamic Azad University, Tehran, Iran

4- MA, Educational Psychology, Payame Noor Varamin University, Tehran, Iran

\* Corresponding author's Email: [Sajedi58.h@gmail.com](mailto:Sajedi58.h@gmail.com)

**Abstract:** Empathy has an promoting effect in children's psychosocial adjustment and improves their social behavior and interpersonal cooperation. The aim of this study was to examine the effectiveness of empathy training in academic adjustment and social happiness of elementary students. The research method was quasi-experimental pre-test-post-test with a control group. For this purpose, 30 people from the statistical population, which included all sixth grade male students in the second district of Baharestan in 2022, were selected by convenient sampling and randomly assigned to experimental and control groups. The participants answered the Academic Adjustment Questionnaire of Clark et al and the Social Happiness Scale of Zare and Aminpour. The experimental group received empathy training for eight sessions, but the control group did not receive any training. The hypotheses were tested using multivariate analysis of covariance. The results indicated that empathy training increased students' academic adjustment and social happiness. The findings supported the role of empathy in social and motivational outcomes of students.

**Keywords:** Empathy training, Academic Adjustment, Social Happiness, Elementary Students

### Introduction

One of the concerns of the educational system is facing students' maladaptive behaviors in school (Schulenberg, 2003). Adaptation requires the coordination of behaviors to meet external needs, and to achieve it, emotions, tendencies and attitudes must be changed and one of the aspects of adaptation is academic adjustment (Hoglund & Leadbeater, 2004). Academic adjustment refers to a set of reactions that help the person prepare to provide a balanced and coordinated response to the school conditions and the activities that the environment demands from him (Páramo et al., 2020). The degree of academic adjustment depends on the amount of adaptation of the individual to the conditions, environment, expectations, requests and social structures governing the school environment (Abdullah et al., 2009). Students' experiences and adaptation to school can have positive and negative effects on their growth. In general, these effects extend beyond typical behaviors at school and extend to prosocial or antisocial behaviors (Respondek et al., 2017). One of the effective factors in academic adjustment is happiness (Moradi & Hezarjaribi, 2019). Happiness is realized in the process of the individual's relationship with the society and the group; Otherwise, from the external observer's point of view, happiness will be nothing but a set of spiritual qualities and exciting individual emotions.

Social happiness can be defined as social, psychological and physical satisfaction or satisfaction with the flow of life ([Sajadian et al., 2020](#)). In other words, social happiness is caused by the feeling of satisfaction that a person has from the social environment such as the work environment, society, has a relationship with others and in his family ([Nasrolahzadeh et al., 2021](#)). Social happiness increases the participation spirit of people to be present in society and strengthens the passion for vibrancy and participation in humans and provides the basis for achieving happiness and social welfare ([Berezan et al., 2018](#)).

The promotion of adaptability in the educational environment and of course it leads to the increase of social vitality, harmony and empathy of students ([Dominguez et al., 2018](#)). Empathy is considered as a fundamental capacity in humans and means experiencing the world from the perspective of others and the ability to perceive and be sensitive to the emotional states of others along with the motivation to care for them ([Stepien & Baernstein, 2006](#)). Empathy training provides positive feedback for tomorrow by increasing a person's understanding by improving his awareness of himself and others, increasing empathic responses by using emotion regulation and perspective taking, which leads to increased accuracy in empathy ([Riess, 2015](#)). Empathy is an important ability that prevents harm to others and is a motivating force for social behaviors that lead to group cohesion ([Morelli et al., 2015](#)). The effect of empathy training programs was confirmed on the social adaptation and psychological security of students ([Zarei et al., 2022](#)), the social competence of students ([Fatemi et al., 2021](#)), the academic progress of gifted students ([Faisal & Ghani, 2015](#)), academic performance of nursing students ([Hojat et al., 2002](#)), increase in social behavior and increase in social and emotional understanding ([Gordon, 2003](#)).

Social happiness is considered one of the most essential natural desires and psychological needs of humans, and because it is always associated with contentment, optimism, hope and trust, it can play an accelerating role in the development process of a society as a catalyst and considering the impact of adaptation in the educational environment and the high level of behavioral problems and incompatibility in students, as well as the lack of research conducted in the field of the effectiveness of empathy training in social happiness and academic adjustment in Iran, the present research aimed to examine the effectiveness of empathy training in academic adjustment and social happiness of primary school students.

## **Material and Methods**

The present study was a semi-experimental pre-test-post-test type with a control group. The statistical population included all the male students of the sixth grade of elementary school in Baharestan in 2022. Participants were 30 students whom selected by accessible sampling method and randomly assigned in experimental and control (15 people in each group). The inclusion criteria included being a boy, being in elementary school, volunteering to participate in the research, and not undergoing other psychotherapies. Exclusion criteria included lack of informed consent, non-cooperation in assignments

and absence of more than two sessions in treatment sessions. The data collection tools included the following questionnaires:

**Academic Adjustment Questionnaire:** This 15-question questionnaire was developed by [Clark et al. \(1976\)](#), and its scoring method is based on a 4-point Likert scale from completely agree (4) to completely disagree (1). The range of scores of this questionnaire is between 15 and 60, and the higher the overall score of this test, the higher the level of compatibility of the students. Also, questions number 2-4-5-6-8-12-14 and 15 are scored in a reverse manner. In [Clark et al. \(1976\)](#) research, the content validity of this questionnaire was reported as very favorable, and its reliability was reported as 0.83 using Cronbach's alpha coefficient. [Sadoughi \(2018\)](#) reported Cronbach's alpha coefficient as 0.85 through internal consistency, and the validity of the construct was shown by factor analysis method.

**Social Happiness Questionnaire:** This Questionnaire was developed by [Zare and Aminpour \(2011\)](#) and consists of 37 items and 5 subscales of life satisfaction (questions 1 to 8), appearance (questions 9 to 17), social interaction (questions 18 to 22), individual efficiency (questions 23 to 30) and helping others (questions 31 to 37), which are used to evaluate different dimensions of happiness and vitality in people. Two marks are given to the no answer to each of the questions 18, 19, 20, 21 and 22, and two marks are given to the yes answer to the rest of the questions. Answers that do not agree with the scoring key are given a score. The minimum score in this test is 37 and the maximum score is 74. A high score indicates the high cheerfulness of the respondent. Its validity has been confirmed by professors of Allameh Faculty of Educational Sciences and Psychology, and its reliability was obtained by Cronbach's alpha method of 0.77 ([Zare & Aminpour, 2011](#)).

The process of conducting the research was as follows: after obtaining permission from the Department of Education and conducting sampling and placing the students in the two control and experimental groups and gaining their cooperation. The members of both groups were assured that their personal information will not be published anywhere. At this stage, the questionnaires were implemented as a pre-test on both groups. Then, the experimental group received empathy training as a group during 8 one-hour sessions in four consecutive weeks. It should be noted that during this period, no training was conducted on the control group, at the end the post-test was performed on both groups. Educational sessions were designed based on the educational intervention of [Vaziri and Lotfi Azimi \(2011\)](#) with revisions by the researcher and supervisor in eight sessions. The summary of the sessions was provided in Table 1.

**Table 1.** Summary of empathy training sessions

Session	Topic	Process
1	Knowledge Application Evaluation Analysis Synthesis	What is indifference? What do we do when you are indifferent? What do others do when they are indifferent? How do we feel when we are indifferent? How do we feel when others are indifferent to us? Do we need to be indifferent? Where should we be indifferent?
2	Knowledge Application Evaluation Analysis Synthesis	What is sympathy? What do we do when we sympathize? What do others do when they are sympathetic? How do we feel when we empathize? How do we feel when others sympathize with us? Do we need to be sympathetic? Where should we be sympathetic?
3	Knowledge Application Evaluation Analysis Synthesis	What is empathy? What do we do when we empathize? What do others do when they empathize? How do we feel when we empathize? How do we feel when others empathize with us? Do we need to be empathetic? Where should we be indifferent? What is the difference between indifference, sympathy and empathy?
4	Knowledge Application Evaluation Analysis Synthesis	What are the barriers to empathy? Empathize with what your friends say Evaluate the empathy of your friends What skills contribute to empathy? And what things prevent empathy. What skills are needed for empathy?
5	Knowledge Application Evaluation Analysis Synthesis	What skills are needed for empathy? What is an interpretation error? What does dehumanization mean in relationships? Name two of your and your friends' interpretation errors? Name two examples of dehumanization of yourself and your friends? Why should we empathize? Do lack of skills and inappropriate interpretations affect our relationships with others? What skills are needed to avoid misinterpretations?
6	Knowledge Application Evaluation Analysis Synthesis	What are the interpretation errors (passive name, tagging, etc Name each of your and your friends' interpretation errors? What role do interpretation errors play in our relationships? What should we do to avoid interpretation errors? What is the result of interpretive errors in our relationships with others?
7	Knowledge Application Evaluation Analysis Synthesis	What skills do we need for empathy? Performing listening, reflection, avoiding labels, diagnosis and dehumanization techniques Follow the above techniques in your behavior and your friends? Name the result of using the above techniques in your behavior and that of your friends? How the combination of techniques occurs in your empathy and your friends.
8	Knowledge Application Evaluation Analysis Synthesis	How is empathy strengthened and how is it weakened? Give feedback to your empathy and others? Evaluate your feelings towards yourself and others? How should you act in order to continue your empathy? Describe your empathy as a general skill in yourself?

All relevant ethical principles, including the confidentiality of questionnaires, the informed consent of the research participants, and the right to withdraw from the research, have been observed. SPSS version 22 software and multivariate covariance analysis were used to analyze the data.

**Results**

The mean and standard deviation of the pre-test and post-test scores of the variables of social happiness and academic adjustment in the experimental and control groups are presented in Table 2.

**Table 2.** Statistical description of pre-test-post-test scores of academic adjustment and social happiness by group

Group	Variable	Pretest		posttest	
		Mean	SD	Mean	SD
Control	Life satisfaction	9.93	1.87	11.07	2.08
	Appearance status	11.13	2.03	11.87	1.92
	Social interaction	7.67	1.63	8.40	1.29
	Individual efficiency	9.40	1.54	10.33	1.54
	Assisting others	8.33	1.11	9.40	0.98
	Total social happiness	46.47	4.15	51.07	3.19
	Academic adjustment	20.60	6.00	22.67	6.47
Experimental	Life satisfaction	10.73	2.52	12.80	2.24
	Appearance status	10.67	1.95	12.47	1.88
	Social interaction	7.33	1.39	9.07	0.96
	Individual efficiency	9.47	1.99	11.40	1.80
	Assisting others	8.53	1.30	10.80	1.85
	Total social happiness	46.73	4.06	56.53	4.10
	Academic adjustment	18.93	4.93	21.12	5.43

In order to investigate the effectiveness of empathy training on the social happiness in primary school students, multivariate covariance analysis was used. To check the normality of the distribution of scores, the Shapiro-Wilk test was used, which confirmed the assumption of normality of the distribution of scores due to the non-significance of the obtained values. The results of the homogeneity test of the regression slope of the pre-test and post-test scores in the experimental and control groups showed that the regression slope was the same in both groups ( $P < 0.05$ ,  $F = 1.065$ ). The results of Levin's test to check the homogeneity of the variance of the dependent variables in the groups showed that the variance of the component of life satisfaction ( $p < 0.05$ ,  $F = 2.296$ ), appearance ( $p < 0.05$ ,  $F = 0.874$ ) social interaction ( $p < 0.05$ ,  $F = 0.935$ ), individual efficiency ( $p < 0.05$ ,  $F = 0.289$ ) and helping others ( $p < 0.05$ ,  $F = 2.290$ ) are equal in the groups. The results of the Box-M test to check the equality of the covariance matrix of the dependent variables between the experimental and control groups also showed that the covariance matrix of the dependent variables in the two groups is equal ( $p < 0.05$ ,  $F = 0.854$ , Box M = 15.918). The results of Bartlett's chi-square test to check the sphericity or significance of the relationship between the variables showed that the relationship between these components is significant ( $p < 0.01$ ,  $df = 14$ ,  $\chi^2 = 42.976$ ). After examining the assumptions of multivariate covariance analysis, the results of the test showed that there is a significant difference between two groups in social happiness ( $F = 7.076$ , Wilks Lambda = 0.349,  $p < 0.01$ ). To check is there a difference between experimental and control groups in which of happiness components, the univariate analysis of covariance was done (table 3).

**Table 3.** The results of univariate covariance analysis related to components of social happiness

Variable	Source	SS	DF	MS	F	p	Eta
Life satisfaction	Between group	6.760	1	6.760	7.094	0.014	0.236
	Error	21.918	23	0.953			
Appearance status	Between group	8.708	1	8.708	7.323	0.013	0.241
	Error	27.351	23	1.189			
Social interaction	Between group	3.774	1	3.774	4.779	0.039	0.172
	Error	18.161	23	0.790			
Individual efficiency	Between group	6.106	1	6.106	5.407	0.029	0.190
	Error	25.972	23	1.129			
Assisting others	Between group	8.858	1	8.858	6.284	0.020	0.215
	Error	32.422	23	1.410			

According to Table 3, F statistic for life satisfaction component ( $F = 7.094, P < 0.05$ ), appearance ( $F = 7.323, P < 0.05$ ), social interaction ( $F=4.779, P < 0.05$ ), individual efficiency ( $F=5.407, P < 0.05$ ) and assisting others ( $F=6.284, P < 0.05$ ) are significant. These findings indicate that there is a significant difference between the control and experimental groups in the social happiness. According to these findings, it can be concluded that empathy training has been effective and has increased the social happiness of students. Also, the effect size in table 3 shows that empathy training has explained 23.6% of changes in life satisfaction, 24.1% of changes in appearance, 17.2% of changes in social interaction, 19% of changes in personal efficiency and 21.5% assisting others.

In order to investigate the effectiveness of empathy training on the academic adjustment in primary school students, the analysis of covariance test was used. After the checking the assumptions, the covariance analysis was done (Table 4).

**Table 4.** The results of univariate covariance analysis related to academic adjustment

Variable	Source	SS	DF	MS	F	p	Eta
Academic adjustment	Between group	15.190	1	15.190	6.383	0.018	0.191
	Error	64.257	27	2.380			

According to Table 4, the F statistic for academic adjustment is significant ( $F=6.383, P<0.05$ ). These findings indicate that there is a significant difference between the control and experimental groups in academic adjustment. According to these findings, it can be concluded that empathy training has been effective and has increased the academic adjustment of students. Also, the effect size in Table 4 shows that empathy training explains 19.1% of the changes in academic adjustment.

### Discussion

The aim of the present study was to determine the effectiveness of empathy education in the academic adjustment and social happiness in elementary school students. The results showed that there is a significant difference between the experimental and control groups in the scores related to academic adjustment in the post-test. Based on this, it can be said that empathy education has been effective in increasing students' academic adjustment. In line with the obtained result, no previous study has been



conducted; but it is similar and closely aligned with previous studies. For example, the research of [Faisal and Ghani \(2015\)](#) showed that empathy training had a significant effect on improving academic achievement among gifted students in Saudi Arabia. The findings of [von Harscher et al. \(2018\)](#) research showed that empathy had a significant effect on reducing the academic burnout of medical students. In explaining the obtained result, it can be said that empathy is an important ability that harmonizes a person with the feelings and thoughts of others, connects him to the social world, helps others and prevents harm to others. Empathy is the motivating force of social behavior that leads to group cohesion ([Morelli et al., 2015](#)). The result of these connections leads to an increase in self-esteem and self-efficacy of students. Adolescents and young people who learn the social rules of the group well and establish strong and solid relationships with family and others will develop a high level of self-esteem and academic self-efficacy and academic progress.

Another finding of the research showed that there is a significant difference between the experimental and control groups in the scores related to social happiness in the post-test. Based on this, it can be said that empathy training has been effective on students' social happiness. The result obtained is in line with the results of similar previous researches in this field. For example, [Zarei et al. \(2022\)](#) indicated that teaching empathy skills has increased social adjustment and psychological security in male students in secondary school. [Fatemi et al. \(2021\)](#) showed that the implementation of empathy program can have a significant effect on improving the social competence of students and increase the social competence of students. The study of [Taher et al. \(2016\)](#) showed that empathy and anger management training can improve general adjustment, academic adjustment, emotional adjustment and social adjustment of children with oppositional defiant disorder.

In explaining the obtained result, it can be said that empathy training helps people to change their interpersonal relationships, the most important of which are relationships with peers and family members, through increasing emotional awareness, emotional symbolization, awareness of agency in experience and changing processes ([Matthys & Lochman, 2017](#)). During empathy training, people learn to control negative emotions such as anxiety, depression and despair and increase their resistance to accidents. In teaching empathy, students are made aware of negative thoughts that cause confusion and avoidance while establishing relationships with others. They are taught to eliminate inconsistent self-narratives, labeling and naming that receive feedback from others, and to replace interpretive errors and inappropriate interpretations with optimistic interpretations, especially when placed in various traumatic situations, and they learn to resist spend more against accidents (Strayer and Roberts, 2004). Empathy is a feeling that makes the child aware of his obligations towards others and stimulates his conscience. It is what leads children to be patient and compassionate, to understand the needs of others, to care adequately for those who are hurt or in trouble. A child who learns empathy is more understanding and compassionate and usually more able to handle stressors and incidents.

One of the limitations of the present study was that it was conducted on elementary school boys, which makes it difficult to generalize the results. In addition, there was no follow-up period in the present study. The information and data related to the research variables were collected through self-

reporting of the participants and through a questionnaire, which is influenced by influential factors such as the tendency of the respondents to provide socially friendly answers. Similar researches should be carried out in other cities and other cultures on the students of other cities so that the results of the researches can be compared. Based on the results of this study, empathy training can be suggested to the administrators of the educational system to facilitate the psychological state and an effective factor in academic adjustment and social vitality. Also, this educational method can be used in school curricula and suitable training courses for trainers and teachers.

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