

## Investigating the relationship between successful intelligence and empathy with social development of preschool children

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### Abstract

**Introduction:** Successful intelligence and empathy are important components of child rearing that can help children's social development. The aim of this study was to investigate the relationship between successful intelligence and empathy with social development of preschool children.

**Methods:** The design of the present study was descriptive-correlational. The statistical population of the study included preschool children in Tehran in 1398 that 370 children were selected by multi-stage cluster sampling. In order to collect data, the Vineland Social Growth Scale (1953), the Bryant Empathy Questionnaire and the Successful Intelligence Questionnaire, which have acceptable validity and reliability, were used. Structural equation modeling was used to analyze the data. Findings: The empathy had a direct impact on social development ( $B = 0.26$ ;  $P < 0.001$ ) and intelligence had an indirect impact on social development of children ( $B = 0.13$ ;  $P < 0.02$ ), Data were analyzed by Pearson correlation coefficient and multiple regression tests.

**Results:** The results of the analysis showed that there was a significant direct correlation between successful intelligence and students' social development and also a significant correlation between empathy and social development. Finally, the results of regression analysis to explain the contribution of each of the variables of successful intelligence, empathy separately in predicting social growth showed that among the two variables studied, the variable of successful intelligence had the largest share in explaining the social development of students.

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**Conclusion:** Successful empathy and intelligence variables have a positive relationship with social development of preschool children.

**Keywords:** Empathy" Social Development" Preschool Children" Successful intelligence

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### **Introduction:**

Paying attention to children and taking care of their social development not only ensures a healthy life in childhood, but also provides the conditions for a healthy life in adulthood, the first years of a child's life due to the rapid growth, learning and experiences that are based on The basis of learning in the next period, especially primary school, is of special importance (1). Preschool as one of the most important periods of children's lives can affect their social development and not paying attention to this important period of life puts the child's growth and development at serious risk (2). Social development as an important part of all-round development of children has positive and negative effects on their mental health, and children with appropriate social development are more successful in maintaining relationships, cooperation, obeying rules, being sensitive to others and, if necessary, controlling their negative emotions. They act (3). As these children get older, they will be able to build healthy relationships with others and participate in group activities, experience happier relationships, and feel more successful. They can also respect the rights and feelings of others, avoid inappropriate demands, and ask others for help if needed (4). Social development involves a positive transformation in the relationship between oneself and others and, like other aspects of growth, is influenced by nature, education. Advances in social development lead to the attainment of a level of skill in social relationships that enables individuals to live in harmony with others (5). Along with social growth, one of the factors affecting social skills is successful intelligence. In a study, successful intelligence is related to a person's ability to express empathy with others, empathy with others in particular helps the person to be more successful in the dimensions of socialization and intimacy in the field of social relations (6). Symptoms and manifestations of empathy appear from early childhood and play an essential role as one of the important emotional abilities in social life (7). This ability is also developed in preschool and plays an important role in altruistic behaviors (8). With the development of the child's

language abilities, expressing empathetic feelings verbally shows itself and thus empathy, accompanied by thinking, leads to the development of empathy in the child and allows the visualization of thoughts and perceptions of others (9). Since the child's thinking is transformed through his social experiences and by creating excellent cognitive functions (10), it is possible to establish real relationships in him, it can be seen that children lacking high levels of social skills are not only able to interact successfully. They do not interact with their peers, but rather experience problematic internalized behaviors (such as feelings of sadness, depression, and loneliness) and problematic externalized behaviors (such as physical or verbal aggression, poor mood control, and arguing with others) (11). Empathy with the main feature of sharing feelings and emotions as the ability to accept the other person's point of view and experience that person's thoughts and feelings (12) and includes two emotional aspects meaning understanding the emotions of others and cognitive dimension means experiencing the emotions of others. And appropriate reactions when confronted with another person's emotional states (13, 14). Empathy in interpersonal commitments and social interactions (15), the quality of family relationships and altruism (16), creating and maintaining friendship (17), social behavior regulation, family cohesion, parental support and accountability in relationships (18) and creating behaviors Social and maintaining interpersonal relationships (19) play a key role and provide a kind of ability to experience the emotions of others and allow the individual to adapt to what they feel and think about him, to communicate with his surroundings and to enter Avoid harming other people (20). Scientists who have developed successful intelligence tests believe that successful intelligence should be defined first and then a test should be developed to measure successful intelligence. If scientists believe in the operational definition of successful intelligence, they try to define successful intelligence based on the way it is measured, and this raises the argument of distance. The second problem is that operational definitions seem to hinder an accurate understanding of the nature of successful intelligence, and may be said to impede new developments in this area. Because the old and approved tests are the evaluation criteria of the new intelligence tests, and the more the new test corresponds to the old tests, the more valid it is evaluated. However, in matters relating to the measurement of various committees, it is always probable that in the future instruments that are much better than the current ones will be invented (22). Successful intelligence is an integrated set of abilities needed to succeed in life, which one defines within one's socio-cultural context. In other words, successful intelligence is a combination of analytical, creative and practical abilities that help people to adapt, choose and change the environment in order to achieve their goals in life, according to the socio-cultural context. Success is defined only in the socio-cultural context of

the individual; People are successfully intelligent by identifying and strengthening their strengths and simultaneously identifying their weaknesses and finding ways to correct or compensate. Successful individuals are able to adapt to, change, and choose their environment by balancing their analytical, creative, and practical thinking abilities (23). In the field of successful intelligence, different theories have been proposed. Like the definitions of successful intelligence, theories of successful intelligence are very different.

**Method:**

The present study is a descriptive or more accurate type of correlational design and structural equations. In order to collect the information required for this study, as mentioned earlier, the Empathy and Success Intelligence Index and the Social Growth Questionnaire were used. In order to implement the tools related to successful empathy and intelligence index, the subjects were asked to choose the appropriate option for each item. In order to select the sample, multi-stage cluster random sampling method was used. The statistical population of the study included preschool children in Tehran in the academic year 2009-2010. For this purpose, first 5 districts were randomly selected from 22 districts of Tehran and 4 preschool centers from each district and 3 classes from each center were selected and finally questionnaires were distributed to children in each center. In this study, the sample size for each question was 5 subjects and in general, according to the number of questionnaire items, 370 people were considered, and 450 questionnaires were distributed among preschool children to prevent the possibility of dropping the sample. Questionnaires were administered to students for 60 days. It is necessary to provide the necessary explanations about the knowledge of the objectives of the study, voluntary participation, privacy, confidentiality, non-registration of identification details, the right to cancel the continuation of all stages of data collection in the study and their consent to participate in the study and approval Ethics Committee and the code of ethics committee (1398. 223. IR. IAU. SRB. REC) was also obtained. The information obtained from the implementation of the questionnaires was analyzed using Spss-V23 software.

In the present study, three types of tools were used, which were: empathy scale, successful intelligence scale, and social growth scale. Students completed each tool individually, and the experimenter provided the necessary explanations to complete before implementation. He

**Bryant Empathy Questionnaire (BEQ):** Bryant (1982) (33) empathy questionnaire was used to assess the degree of empathy. This questionnaire consists of 21 items that are answered positively or negatively. A positive response indicates a tendency to empathy and a negative response indicates a tendency to empathy. The empathy score is obtained by the algebraic sum of the answers. In order to evaluate the construct validity of this questionnaire, the correlation

coefficient of the scores obtained from the above test with the scores of aggressions, popularity, unpopularity and societal behavior has been calculated and its validity has been reported as desirable. Also, the reliability coefficient of this questionnaire was obtained by retesting 0.77, which indicates the appropriate reliability of this questionnaire. In Iran, too, mysticism has reported the reliability and reliability of this test as desirable for Iranian students. The reliability of this questionnaire was obtained by retesting with a two-week interval of 0.79. Also, the negative correlation between empathy scores with overt aggression was 0.42 and communication aggression was 0.37 and the positive relationship between the questionnaire and societal behavior was 0.38 in students, indicating the appropriate construct validity of this tool (34).

**Sternberg Success Intelligence Questionnaire (2005):** The Successful Intelligence Questionnaire consists of 36 subtests, which measure 3 sub-components: analytical, creative and practical. This questionnaire has 36 questions, each component includes 12 questions. The first 12 questions measure analytical components, the second 12 questions measure creative components, and the last 12 questions measure practical components. People answer questions on a five-point scale (excellent =5, very good =4, good =3, relatively good =2, poor =1). The maximum score in this test will be 180 and the minimum score will be 36. These scores will be added together and a total score will be obtained for each test, which indicates the level of his successful intelligence (36). The reliability of the above questionnaire has been reported in several studies by Sternberg (2002, 2005, 2010) between 0.72 and 0.85. Neghaban Salami et al. (2012) reported the reliability of this questionnaire based on Cronbach's alpha and retest between 0.74 to 0.81.

**Vineland Social Growth Scale (VSMS):** The Vineland Social Growth Test was translated and validated in 1953 by Dal (37) and by Okhot va Daneshmand (1357). This scale measures a person's ability to meet their practical needs and accept responsibility and has 117 items that can be used from birth to 25 years and older. The questions are made step by step and for each age group (up to twelve years) separately. The items in this scale include 8 areas: general self-help, self-help in eating, self-help in dressing, self-direction, occupation, mobility, communication and socialization. In each article, the required information is obtained not through test situations but through interviews with informants (parents, nurse, sister, brother or in general anyone who knows the child well). According to the scores obtained by the person from the eight materials of this scale, the social age (SA) and social interest (SQ) of the person are calculated. This scale was standardized on 620 men and women in each age group (from birth to 30 years old) and its validity coefficient was 0.87 and its reliability coefficient was

reported to be 0.92. In Iran, the reliability of this scale by Braheni retest method in all options was equal to 0.92 (38).

**Results:**

Demographic characteristics of the participants are showed in the table (1).

Table 1. Descriptive indicators obtained from research variables

Fans of the complexity of	Distortion	The standard deviation	mean	Variable with Raha
2/80	0/43	6/17	47/73	Sympathy
0/40	0/03	6/65	27/54	Intelligence analysis of L the
1/34	0/32	6/19	31/98	Creative intelligence
1/14	-0/41	4/34	26/90	Intelligence operation of
0/68	0/12	14/19	86/41	Successful intelligence
2/80	0/43	6/17	47/73	Sympathy
2/77	0/72	2/55	7/24	Self - propelled barges
0/75	-0/07	2/43	8/20	Relationship
2/23	1/75	2/37	8/29	Community of
07/2	0/02	19/13	83/66	Social development of

The results of the above table show that among the dimensions of social development of preschool children, the highest average is related to self-help in eating and the lowest average is related to self-leadership. Based on the midpoints of the questionnaires, it can be said that the average empathy of the children was higher than average. In the case of social growth, the average of most and most subscales is around the average point and slightly higher than that. The components of successful intelligence are slightly lower than the midpoint of the questionnaire for all three components of analytical intelligence, creative intelligence and practical intelligence.

The social development of preschool students was tested according to their grade point average. According to Table 2, it can be seen that the social growth of students is equal to 17.12 2 2.18. Here, the minimum social growth score is 9.17 and the maximum is 19.99, and the skewness coefficient is -0.5, which indicates that the distribution Data is negative. The rate of social growth of the studied students is moderate.

Table 2: Distribution of social growth distribution of the studied students

At least	Maximum	Fans of the complexity of	Skewness	Standard deviation of each	mean	n	Variable
19/99	9/17	-0/011	-0/507	2/18	17/12	450	Social development of

Based on the information in Table 3, it can be seen that the average successful intelligence of students is 122.15 19 19.58, with a minimum score of 35 and a maximum of 167. Also, the average score of students' empathy was equal to 23.15 99 99.129, with a minimum score of 70 and a maximum of 225. In general, it can be said that the subjects have successful intelligence and moderate empathy relationship.

Table 3: Distribution of subjects' emotional intelligence score and empathy

At least	Maximum	Fans of the complexity of	Skewness	Standard deviation of each	mean	n	Variable
35	167	2/16	-1/04	19/58	122/15	450	Successful intelligence
70	225	1/03	-0/180	23/15	99/129	450	Sympathy

The results of multivariate regression analysis in Table 4 show a correlation coefficient of 0.166 between the variables of successful intelligence and the variable of empathy on the one hand and social growth on the other, which according to the information in Table 5 is significant and between successful and variable intelligence. Empathy is related to the social development of the subjects. This result, which is the result of regression analysis through ANOVA analysis of variance, shows that the assumption of realization is confirmed.  $P = 0.018$  Therefore, there is a relationship between successful intelligence and empathy with social growth.  $F = 3.46$ .

Table 4. Multivariate regression analysis

Error of the standard	Squared R Modified in the test	Major R	R
2/17	0/018	0.028	0/166

Table.5 The analysis of L like a man to the line of the relations of the variables of the release of the study

F	sig	Of the Engen squares	Degree of freedom of	Total squares	Variable
3/46	0/018	16/968	3	45/786	Regression of Van
		4/618	447	1782/985	Remain in balance
			450	1828/771	Total

The information obtained about successful intelligence and empathy in relation to social development shown in Table 6, it is clear that the variable of successful intelligence in relation

to social growth has a significant coefficient and also the coefficient of empathy variable is significant.

Table 6: Coefficients related to the relationship between successful intelligence and empathy with social growth

sig	t	Coefficients of the standard	Coefficients of the non-standard		
			Error of the standard	B	
0/000	16/308	Beta	0/921	15/216	Constant
0/013	2/482	0/132	0/006	0/014	Successful intelligence
0/014	3/524	0/142	0/005	0/016	Sympathy

As can be seen from Table 7, there is a relationship between successful intelligence and social development of the subjects.

Table 7: Correlation between successful intelligence and social growth

N	sig	The coefficient of the correlation of	Variable
450	0/003	0/158	Successful intelligence and social development of

As can be seen in Table 7, the correlation coefficient was 0.158, which is significant at the level of 0.003. Therefore, it can be said with more than 99% confidence that there is a direct and relatively weak relationship between the two variables.

Table 8: Correlation coefficient between empathy and social growth

n	sig	The coefficient of the correlation of	Variable
450	0/004	0/152	Sympathetic to the social development of

### Discussion and conclusion:

In the present article, the relationship between successful intelligence and empathy with social development of preschool children was investigated and the contribution of each of the factors of successful intelligence and empathy on social development was studied and determined. Data analysis indicates that there is a significant relationship between successful intelligence and social growth at the level of 0.01. The results showed that empathy is effective in the social development of preschool children. These results are consistent with the results of studies (26,



39). In explaining the above results, it can be said that the first years of a child's life are a special period that is determined by the high speed of growth, learning and experiences that are the basis of the learning of the next period. Preschool age is of special importance as one of the most important periods of a child's life in social development. Failure to pay attention to this important period of a child's life poses serious risks (2). Social development involves a positive transformation in the relationship between oneself and others and, like other aspects of growth, is influenced by nature, education. Although there is growth and development and mutual understanding at birth, they must be created and nurtured in social situations. Progress in social development leads to the attainment of a level of skill in social relationships that enables individuals to live in harmony with others. The basis of social skills is derived from successful intelligence. Successful intelligence is related to a person's ability to express empathy with others. Empathy with others in particular helps the individual to function more successfully in terms of socialization and intimacy in the field of social relations (6). Symptoms and manifestations of empathy appear from early childhood and play an essential role as one of the important emotional abilities in social life. Empathy with the main feature of sharing feelings and emotions is considered as the ability to accept the other person's point of view and experience that person's thoughts and feelings (12) and includes two emotional aspects meaning understanding the emotions of others and cognitive dimension meaning experiencing other people's emotions. And appropriate reactions when confronted with another person's emotional states (13). In this regard, Heeren believes that people feel how efficient and competent they are, and how efficient they think, and how well they behave skillfully in certain social interactions, in addition to relying on their own inner beliefs about their ability to evaluate and choose a behavior. In particular, it is related to the ability to read the feelings of others accurately and the capacity to understand the emotional perspective of others (27). Empathy, therefore, provides an ability to experience the emotions of others and allows one to align oneself with what one feels and thinks about oneself, to relate to one's surroundings, and to avoid harming others (20). When a person is more or less able to understand the emotional meaning of a situation, he or she can reflect on the consequences of deciding to take action for himself or herself and design solutions to conflicts. From an emotional point of view, one is able to consider to some extent the emotional consequences of certain actions for oneself and others or empathy with others. Accordingly, it seems that the formation of empathy in individuals can significantly lead to the development of emotional capacity to identify and respond to emotional symptoms in social interaction, establish positive relationships with others, build and expand trust and mutual supportive relationships. These abilities are

considered as emotional adequacy and play an important role in the development of emotional skills and adaptation to the social environment. In this way, the child will be able to experience enough of the feeling of self-control, effectiveness and self-efficacy in the social environment. Encourage conversational skills to initiate and maintain social interaction, negotiation, and assertiveness with others. By developing the skills to express the behavior that the child is aware of, he or she can select specific behaviors for the regulation of emotional stimuli and predict the outcome. Empathy, by influencing social development factors such as personal independence, responsibility, communication and adaptation of hope, optimism, moderation and good humor, enable children to decide and choose the appropriate behavior and express it, gain the ability to do things without the help of others. They are able to accept the tasks and plans assigned by the society. Acquiring emotional skills through empathy also helps them socialize by creating the ability to interact and collaborate with others and to feel socially united. Experiencing these valuable results also fosters hope and moderation in children by creating a sense of effectiveness, self-efficacy and self-control.

Overall, the present study showed that successful empathy and intelligence have a direct effect on social development in preschool children and these two variables can play an effective role in students' social development. Also, the results of data analysis showed that successful intelligence training could have a significant effect on social development of preschool children ( $P < 0.001$ ) and improve children's growth. Therefore, by promoting empathy in children, a new kind of view can be given to the child and the power of reasoning, inventing solutions to solve new problems, judging correctly, empathizing in appropriate situations, examining the issue from different angles, respecting different views in They increased. Optimal social education and adaptation to social groups are impossible alone without providing appropriate opportunities. The sooner these opportunities are provided, the easier the child's social development will be. Therefore, sending a child to kindergarten is very useful to complete and expand the social relationships that he needs at home and in contact with his peers, because in kindergartens, not only does the child interact with his peer social group. , Rather, kindergarten teachers guide his social behavior in the desired direction. Today, for various reasons, children are more often placed in kindergartens and care centers, and where the person who has the most contact with the child is an educator who, given his abilities, skills, and the use of successful intelligence and empathy, has Communicates with the child and plays an important role in transmitting social concepts and developing social skills to the child. Based on the results of the present study, it is suggested that the method of successful intelligence and empathy training be used to increase the growth of preschool children.

Considering that in the present study it was found that there is a significant relationship between successful intelligence and social development in preschool, therefore, it is suggested to provide social skills training from an early age in order to increase social growth. Finally, in order to increase the social development of children, it is recommended to examine its relationship with successful intelligence and empathy. In order to achieve this goal, Bo has organized training workshops for parents and educators so that Learning the principles of communication with the child can increase the social development of children. Also, considering the importance of successful intelligence and empathy in social life, it is suggested that in schools, the necessary planning and coordination to use the methods of teaching successful intelligence and empathy, by the principal and teachers and other stakeholders in educational programs..

### **Conflict of interest**

The authors have no conflict of interest.

### **Application of research**

Applying this research in schools with the necessary planning and coordination to use the methods of teaching successful intelligence and empathy, by the principal and teachers and other stakeholders in education programs will be of great help to educational officials.

### **Research Limitations**

One of the limitations of this study is the limited sample of preschool children. Also, considering that the present study was conducted on preschool children in Tehran, therefore, it is necessary to be careful in generalizing the results to other groups and cities. Another limitation of the study was the control of disturbing variables such as socioeconomic class and other emotional and personality traits.

### **Ethical considerations**

Considering the ethical considerations in this study, it is suggested that considering these considerations, the teaching of empathy skills and the study of successful intelligence of children be included in formal programs. It is suggested that in order to strengthen the social development of preschool children by holding recreational and educational camps, these children should be able to interact with others.

### **Appreciation**

The present study was taken from the doctoral dissertation in the field of psychology, which was approved by the ethics index (1398. 223. IR. IAU. SRB. REC). The researchers consider it necessary to thank all the partner preschool centers that helped us implement this project

## Resources

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