

## Determining the Most Important Dimension of the Development of Social Responsibility

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### **Abstract**

*The purpose of the study was to identify the most important factors in the development of social responsibility of young talented students across the three dimensions of personal characteristics, school relationships, and family relationships. The study population consisted of 300 winners of the Korea Young Talent Award. The study used data from the Department of Education, Science, & Technology and utilized dominance analysis to determine which set of factors had the greatest relative importance for predicting the degree of social responsibility exhibited by these award winners. The results of this study showed that the young talented people whose parents were more supportive of their needs had higher levels of social responsibility than was true of the participants who reported receiving less parental support. School activities and relationships were less significant factors in the enhancement of social responsibility compared to the family relationship factors. These results are discussed in relation to the Korean educational culture.*

**Keywords:** *Social responsibility, The Korea Young Talent Award, Dominance analysis*

### **1. Introduction**

Social responsibility is a respected virtue in East-Asian culture, and leaders are expected to work toward social justice goals. Social responsibility can be considered as a set of positive attitudes toward society and others, with these attitudes being seen as beneficial to both individuals and society [1][2]. In addition, many stakeholders including parents, teachers, schools, governments, and the students themselves, focus on the development of social responsibility [3]. Studies have therefore examined the relationships between social responsibility and related factors such as family relations, school relations, or personal characteristics. Developing social responsibility plays a significant role in the education of highly talented youth, who may become future leaders. Although it is important to recognise the factors that influence the development of social responsibility in this group, empirical studies in this area are scarce.

The purpose of this study is to identify the most important factor among three dimensions (personal characteristics, relationships in school, and relationships in the family) in developing social responsibility in highly talented young people in Korea. To find the most important factor influencing the development of social responsibility in highly talented young people in Korea, we analyzed the winners of the *Korea Young Talent Award* who are

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expected by the Korean government to become the role models and leaders of the next generation.

## **2. Previous studies and background**

Most studies of social responsibility in the field of education have discussed individual characteristics and environmental mechanisms, including family and school. In Korea, many studies share similarities with the Western studies. However, current studies consider that social responsibility bears resemblance to altruism[4][5]. Lim [4] examined the relationships between Korean parenting behaviors and developmental outcomes on self-esteem and social responsibility and found that Korean parenting behaviors were significantly associated with adolescents' developmental outcomes. The study [5] investigated educational effectiveness of youth voluntary service activities for youth in metropolitan areas. The results of this study showed that the service activity factors of the youth such as the motivator, service quality and educational appropriateness had an effect on such educational effectiveness factors as social responsibility and self-identity.

The Korea Young Talent Award is a presidential education award program in Korea that is sponsored by the Korea Ministry of Education, Science, & Technology (MEST) in partnership with the Korea Foundation for the Advancement of Science & Creativity. The purpose of this award is to recognise students' outstanding educational growth, improvement, commitment, and intellectual development in specific academic or talent areas. It is designed to encourage and reward students who have made notable achievements in their school or communities, often in the face of obstacles to their learning. Every year since 2008, the MEST has rewarded 100 students (60 high school students and 40 college students) who have shown various creative talents. By identifying and encouraging the creative and talented youth of Korea, this award implicitly defines a concept of talent that places a high value on diverse capabilities and comprehensive knowledge.

## **3. Research methods**

### **3.1. Data and participants**

The data for the present study came from the Characteristics of the Korea Young Talent Award Winners dataset of 2011, which was sponsored by the Ministry of Education, Science, & Technology (MEST). A survey questionnaire for the project was constructed based on reviews of the extant literature and findings from the interviews. The study conducted a complete enumeration and all of the winners from 2008 to 2010 were included, with a total of 300 study participants. The Korea Human Resource Research Centre conducted an on-line survey of 273 winners, as 27 individuals had not disclosed their email addresses, and the project team then conducted the on-line survey from August 6 to September 7, 2011, and collected 184 responses, which equates to a response rate of 67.4 %.

### **3.2. Measures**

The questionnaire used in the project, Characteristics of the Korea Young Talent Award Winners, consisted of about 200 question items in five areas: 1) Gifts and talents (multiple types of intelligence, creativity and personality factors); 2) personal factors (personal activities and personal non-cognitive characteristics); 3) environmental factors (family and

school relations); 4) performance (contributions to personal life and society), and 5) basic demographic information (gender, current social level and parents' SES). For the present study, the personal non-cognitive characteristics, parent and school relationship environmental factors, social responsibility measures, and the basic personal information variables such as respondents' gender and current social level were used. All items were scored on 5-point Likert scales ranging from 1 ("strongly disagree") to 5 ("strongly agree").

### 3.3. Variables

*Social responsibility:* The measure of award winners' social responsibility was taken from Oh et al. [6]. This scale captures individuals' judgments of their capability to pursue social goals and return social benefits. It consists of five items measuring the extent to which respondents understand the social meaning of their behaviour, match their social and personal goals, experience the social benefits of their work, and the extent to which they see their work as contributing to society on both the wide and individual level. This measure has demonstrated both strong internal consistency and strong construct validity [6]. For the current sample, the adjusted Cronbach's alpha score was .781.

*Personal characteristics:* This study uses two variables to measure personal characteristics, self-esteem and self-concept, as these constructs have both been reported as positively related to the level of social responsibility in previous studies. Self-esteem consists of four items and positive self-concept uses five items. In this study, the adjusted Cronbach's alpha scores for these measures were .701 and .706, respectively.

*Relationships in school:* Respondents' school relationships were measured through their teacher relationships and their self-reported peer attachment. These items were taken from Jung[7] with both variables consisting of four items. Their Cronbach's alpha value were .821 and .875, respectively.

*Relationships with parents:* The measures of parental behaviour were taken from Jung [7] and consisted of two factors: perceived parental aspiration and perceived parental attachment. Parental aspiration was measured by four items and parental attachment was measured by five items. The adjusted Cronbach's alpha scores for these measures were .832 and .718, respectively.

### 3.4. Analyses Procedures

Our data analysis was carried out in two stages. First, we employed descriptive statistics including the frequency, percentage, mean and standard deviation of the demographic characteristics of respondents. Correlation analysis was then conducted for all of the study variables so as to understand the relationships between these variables.

Second, this study also conducted a dominance analysis [8][9] to determine which of the three sets of variables (personal characteristics, school relationships, and parent relationships) were the most instrumental in developing social responsibility. Dominance analysis is a strategic analytic method designed to assess the relative importance of predictors in multiple regression. This method approaches the problem of relative importance by examining the change in  $R^2$  resulting from adding a predictor to all possible subset regression models. To examine the relative importance of each variable, the predictive power of all possible pairwise sets of variables is compared, using two steps. Each separate regression equation is first calculated based on the dominance of each set of predictors, and the second step is to compute the relative contribution of each set of predictors. Accordingly, we calculate  $M(Cxi)$ ,

which indicates the average usefulness of each set of variables, and their relative percentages, thus indicating the relative importance of each set of variables to overall prediction.

#### 4. Results

*Descriptive analysis:* Based on the data from all 184 participants, the frequency distributions and percentages were analysed. Of this group, 58.7% (108) were males and 41.3% (76) were females. Most respondents were college or high school students (81.0%), with the remaining 19% having already entered the labour market. The mean score of social responsibility was 4.22, which was the highest mean score across the variables used in this study. With respect to the other variables, the highest mean score was that for positive self-concept, which was 4.19, followed by that for teacher relationships at 3.94. Parental aspiration had the lowest mean score among the variables.

In the correlation analysis, there was a significant positive correlation between students' perceived sense of social responsibility and their personal characteristics such as their self-esteem and positive self-concept. With the exception of peer attachment and social responsibility, all variables were positively related with teacher relationships, parental aspiration, and parental attachment.

*Dominance analysis:* A dominance analysis and a multiple regression analysis were employed to examine the relationship between social responsibility and two factors from each of the personal characteristics, school relationships, and family relationships dimensions. We first conducted multiple regression analysis. These six variables accounted for 24 % of the variance in the development of social responsibility in the *Korea Young Talent Award* winners. Among these six variables, only perceived parental aspiration positively influenced the participants' sense of social responsibility ( $\beta=.261, p<.01$ ). Self-esteem, teacher relationships, peer attachment, and parental attachment were also positive factors, but were not statistically significant in their relationship with social responsibility.

To examine the relative importance of each variable, we used dominance analysis to compare the predictive power of all possible pairwise sets of variables. For this, we first computed seven separate regression equations for all possible combination of variables (Table 1). Set A consisted of personal characteristics such as positive self-concept and self-esteem, with set B containing the school relationship factors such as teacher relationships and peer attachment. Set C represented the parental relationship factors of perceived parental aspiration and parental attachment.

Table 1. Summary of the dominance analysis of the variable sets (N=153)

Variables	Additional contribution of			
	$R^2_m$	Set A Personal characteristics	Set B School relationships	Set C Family relationships
-	0	.055	.098	.219
Set A	.055	-	.024	.005
Set B	.098	.075	-	.018
Set C	.219	.005	.139	-
Set A, Set B	.212	-	-	.177
Set A, Set C	.224	-	.018	-
Set B, Set C	.237	.004	-	-
Total $R^2$	.241			

(Set A, Set B, Set C)				
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After having reviewed the dominance of each set of predictors, we calculated the relative contribution of each of these sets (Set A, Set B, Set C). The average R-squared value for each set was found across all possible orderings of sets ( $k=0, k=1, k=2$ ). [Table 2] shows the quantitative measures of the relative importance of these three sets of variables based on the average usefulness of the each set of predictors [ $M(Cxi)$ ], The last row of [Table 4], *relative percentage*, indicates the relative importance of the sets, and could thus be interpreted as the relative contribution of each set to the total variance accounted for by the full model (Total  $R^2 = 24\%$ ). It was found that Set C (family relationships) showed the highest predictive power, accounting for 58.3 % of the total variance. Set B (school relationships) accounted for 29.2%, and Set A (personal characteristics) accounted for 12.5 %.

Table 2. Quantitative measures of the relative importance of variable sets

K	Additional contribution of		
	Set A Personal characteristics	Set B School relationships	Set C Family relationships
0	.055	.098	.219
1	.040	.082	.015
2	.004	.018	.177
<i>M(Cxi)</i>	.033	.066	.177
<i>Relative percentage</i>	12.500	29.167	58.333

Note:  $M(Cxi)$ : indicates the average usefulness of each set of variables. *Relative percentage*: the relative importance of each set of variables to the overall prediction  
*k*: the number of additional sets taken into account.

These results show the relative importance of the three different sets of variables in predicting the development of social responsibility. Given the findings, this study would suggest that family relationships, including the extent to which parents have positive aspirations for their children and the level of child-parent attachment, are likely to have had significant influence on the development of social responsibility in highly talented Korean youth.

## 5. Discussions and conclusion

The results of this study showed that the talented youth of Korea whose parents were supportive of their needs showed higher levels of social responsibility than was true of their counterparts with less parental support. This result is interesting in that it is partly in conflict with those of previous studies, which have often indicated that it is school-level factors such as peer and teacher relationships that have the most significant impact on the development of social responsibility in adolescents. In the current study, however, school relationship factors were not found to be statistically significantly in their impact on the development of social responsibility. In addition, dominance analysis also revealed that family relationship factors, rather than school relationships or personal characteristics, were the most influential in the development of social responsibility.

As a majority of previous research has been conducted using Western samples, one possible interpretation of this result relates to the different cultural and social contexts

between Korea and Western society. Many studies into Korea's educational culture have indicated that it is parents' high degree of concern about, and support of, their children's education that has led to the high levels of academic achievement in Korean youth. With regards to the development of social responsibility, the Korean educational culture and environment may be a significant influence in the sense that social responsibility occurs in the proximal contexts of families, peers, schools, and communities [1].

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