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# The Relationship between Single-Sex and Co-Educational Environments on Socioemotional Development

There have been many debates over the advantages and disadvantages of single-sex education with regards to socioemotional development. Although some research shows that girls are often neglected in the classroom when boys are present, other research states that single-sex education may not be as beneficial as thought. The purpose of this study was to examine the discrepancies between previous research on single-sex and co-educational environments in relation to socioemotional development. Specifically, we investigated the differences in perceived competence, self-esteem, locus of control, and perceived social support. Within these areas of socioemotional development, we expect differences to exist based on educational environment. However, we are reluctant to postulate which educational environment will yield the higher scores in each area since conflicting research is present.

There has been much debate over the advantages and disadvantages of single-sex education with regard to socioemotional development (e.g., Mael, 1998). For example, prior research shows that girls are often neglected in the classroom setting due to the fact that much of the teacher's attention is directed toward their male students (AAUW Report, 1992; Omerod, 1975; Schneider & Coutss, 1979). Hypothetically when boys are removed from the classroom setting, girls will be given more opportunities to develop leadership skills, self-esteem, and self confidence (Foon, 1988; Monaco & Gaier, 1992).

However, while there is the push to support single-sex education for girls because of such reasoning, there is research that shows that single-sex education may not be as beneficial as thought. For example, Cairns (1990) reported that no significant difference could be found in self-

confidence between girls attending single-sex or co-educational schools.

In addition, there is also research that depicts co-education superior to single-sex education. Granlesse and Joseph (1998) discovered that girls from a co-educational school scored significantly higher on measures of self-confidence including physical appearance, social acceptance and athletic competence. Also, Payne and Newton (1990) found that co-educational schools provide a healthier social setting for teachers and students alike.

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these areas of socioemotional development, we expect differences to exist based on educational environment. However, we are reluctant to postulate which educational environment will yield the higher scores in each area since conflicting research is present.

#### **METHOD**

## **Participants**

One hundred fifty three students participated in this study. These participants were drawn from five suburban high schools. Eighty girls attended single sex, private schools; 39 were from co-educational, private schools; and 34 were from co-educational public schools. The average age of all participants was 15.6 years. The majority of the participants were Caucasian and from middle-class economic backgrounds. For those attending the private schools, the average cost of tuition was approximately three thousand dollars per year.

#### **Apparatus**

The Self-Perception Profile for Children (Harter, 1985) was administered to measure perceived competence in six areas: scholastic competence, social acceptance, athletic competence, physical appearance, behavioral conduct and global self-worth. The reliabilities for the five subscales of the Self-Perception Profile for Children ranged from .71 to .86. The New York State Self-Esteem Scale (Rosenberg, 1965) was used to measure self-esteem. The measure is a ten item Guttman scale with a coefficient of reproducibility of ninety-two percent and a coefficient of scalability of seventytwo percent. To measure locus of control, participants completed the Rotter's Internal-External Control Scale (1966) and based on responses were grouped as internal or external in terms of locus of control. Finally, students completed a survey on perceived social support and demographics.

#### **Procedures**

Students from all five schools received the same directions and questionnaires. The directions informed students that the purpose of the project was to examine influences on development. They also signed an informed consent that stated their participation was voluntary and could be stopped at any time without penalty. The classroom teacher

distributed the questionnaires to students. After the survey was completed, a researcher informed students that the study was investigating influences on development and in particular the influence of educational environments. In addition, participants were informed of how to contact a researcher if they had any further questions or comments. For their participation, all schools were given a copy of the results.

#### **RESULTS**

### Private versus Public Schools

Since 34 of our co-educational students attended public schools, we analyzed the dependent measures between those students attending private and public schools to determine whether this was a possible confound. The results indicated no significant differences between the two groups of students (see Table 1). Therefore, it is very possible that the same expectations and goals were held by students from both types of schools and yielded similar perceptions. Since no significant difference was found between schools, the students from all forms of co-educational schools were analyzed as one group.

#### Co-Educational versus Single-Single Sex Schools

No significant difference was found in selfesteem between those students attending singlesex schools and those attending co-educational schools, t(149) = -.82, p = .412. In terms of locusof-control, no difference was found between single-sex and co-educational students,  $X^2$  (2, N= 153) = 1.02,  $\underline{p}$  = .60. However, when individual components of the locus of control scale were examined, 97.3% of students from co-educational schools indicated that they believed they had personal control over grades as compared to 88.5% of students from single-sex schools. In addition, 95.9% of co-educational students believed that the grades they obtained were due to their own effort as compared to 82.3% of singlesex students and 84.7% of co-educational students believed they possessed more control over their general fate as compared to only 65.8% of students from single-sex schools. A multivariate analysis of variance (MANOVA) was performed for the two groups on the six scores of the Self-Perception Profile for Children. Results of the analysis revealed a

TABLE 1
Scores of Perceived Self-Competence for Students Attending
Private and Public Schools

Scores	M SD	Private <u>N</u> = 119 <u>M</u>	Public <u>N</u> = 34 <u>SD</u>	
Calé Fata ana	20.79	4.56	24 92 4 77	
Self-Esteem	30.68		31.82 4.77	
Scholastic Competence	2.83	.59	2.86 .65	
Social Acceptance	2.99	.59	2.96 .67	
Athletic Competence	2.53	.74	2.37 .65	
Physical Appearance	2.36	.71	2.58 .80	
Behavioral Competence	3.13	.56	3.25 .59	
Global Competence	3.08	.65	3.17 .62	

TABLE 2
Scores of Perceived Self-Competence for Students Attending
Single-Sex and Co-Educational Schools

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Self-Esteem	30.64	4.70	31.26	4.54		
Scholastic Competence	2.79	.53	2.89	.66		
Social Acceptance	2.88	.59	3.10	.61*		
Athletic Competence	2.52	.79	2.48	.65		
Physical Appearance	2.27	.64	2.57	.79**		
Behavioral Competence	3.07	.53	3.26	.59*		
Global Competence	3.03	.61	3.18	.67		
*p < .05						
**p < .01						

TABLE 3
Academic and Emotional Support in Students
Attending Single-Sex and Co-Educational Schools

	Single-Sex	Co-Education	
	<b>%</b>	%	
Academic Support			
Teachers	34.2	39.2	
Parents	30.3	45.9	
Friends	27.6	8.1	
Others	7.9	6.8	
Emotional Support			
Teachers	1.3	4.2	
<u>Parents</u>	26.6	37.5	
Friends	69.6	55.6	
Others	2.5	2.8	

significant multivariate effect of type of school attended,  $\underline{F}(6, 145) = 2.54$ ,  $\underline{p} < .05$ . Follow-up ANOVAS indicated that students from coeducational schools scored higher than students from single-sex schools on three of the six areas of perceived competence (see Table 2). These included scores on behavioral conduct,  $\underline{F}(1,150) = 1.31$ ,  $\underline{p} < .05$ ; physical appearance,  $\underline{F}(1,150) = 3.52$ ,  $\underline{p} < .01$ ; and social acceptance,  $\underline{F}(1,150) = 1.79$ ,  $\underline{p} < .05$ .

On the social support measures, almost an equal number of students from both types of schools reported that they received academic support from teachers. However, more students from the co-educational schools reported academic support coming from parents with more students from single-sex schools reporting academic support coming from teachers,  $X^2$  (3, N= 150) = 10.69, p < .01. No difference was seen when comparing students from single-sex and coeducational schools in regards to emotional support,  $X^2$  (3, N = 150) = 3.8, N = .28. A majority of adolescents from both single-sex and coeducational schools indicated that emotional support came from friends and peers, with a smaller percentage of students indicating that the family provided this support (see Table 3).

### **DISCUSSION**

The present study offers many implications for the relationship between single-sex and co-educational environments on socioemotional development. Our findings with regard to levels of self-esteem support those of Foon (1988) who found there to be no difference between the two groups. Students from both single-sex and co-educational environments obtained scores implying high self-esteem. It is possible that either students actually possessed high levels of self-worth or that they were aware that self-esteem was being measured.

We also found no differences in the locus of control scores between single-sex and coeducational students. However, individual analysis of the locus of control scale revealed that girls from co-education schools perceived more control over grades and general fate than did girls from single-sex schools. These findings may also explain why girls from co-educational environments scored higher on perceived competence in behavioral conduct, physical appearance and social acceptance. This means that if the girls from co-educational schools feel more in control of their situations, they will have increased levels of self-confidence and competence. Furthermore, the three areas of

increased perceived competence in coeducational scores might be directly related to the presence of boys. For example, if boys are present in the classroom, they are more likely to get most of the attention, including reprimand for behavior. This would in turn increase the female counterparts' beliefs about the appropriateness of their behavior. Furthermore in the co-educational environment, the presence of boys might be augmenting the girls' self-esteem in physical attractiveness and social acceptance by filling a social desire.

In examining social support, girls from both single-sex and co-educational schools reported peers as offering the most emotional support. However, these results are not surprising considering the importance placed on peer acceptance during adolescence. Yet, with regards to academic support, single-sex students reported greater support from teachers, while coeducational students indicated parents as their greatest supporters. These results may reflect the reasoning present in previous research that removing boys from the classroom allows the teachers to focus more on the girls. Future research in this area might examine how coeducational teachers can devote equal amount of time to males and females.

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