## Reading 2

## **GENDER AND ACADEMIC ACHIEVEMENT**

Schools used to offer separate courses on the basis of gender in the United States and many countries in Europe. Traditionally, typing and cooking courses were for girls; business and mechanical courses were for boys. High school teachers were not likely to encourage girls to go on to college because girls were expected to get married and stay home to raise children. If a girl was going to college, teachers advised her to choose a traditionally feminine career such as teaching, nursing, or social work. Not surprisingly, in the past, boys' academic achievement was consistently higher than girls' academic achievement, especially in math and science.

This picture began to change starting about the 1970s. Increasingly, schools in most countries began to offer the same courses to all students, and today both boys and girls are expected to have careers after they graduate. However, even after boys and girls began to take the same courses, different expectations for boys and girls remained common. Various studies showed, for example, that from preschool through high school, girls were given less attention than boys. This gender bias may have been unintentional, but 30 years of research showed that it occurred in almost all education settings. Researchers consistently found that teachers devoted more time and attention to boys than to girls. Boys were invited to participate more frequently in class and received more praise for their participation, especially in math and science classes. This may explain, in part, the lower achievement of girls in math and science.

## Academic achievement of girls

Even though scientific studies have shown that there are some biological differences between male and female brains, these differences are too small to explain the difference in boys' and girls' achievement. As a result, researchers have looked for other reasons for this gender gap in achievement. Studies show that at age nine, the majority of girls are confident, assertive, and positive about themselves. Their math and science scores are equal to boys' scores. However, when they reach high school, their self-esteem and their performances in math and science decrease. Research on the difference between girls' and boys' performances in math and science suggests that it is a result of different expectations, that is, what others expect of them, and what they expect of themselves.

Today, however, in general, girls are doing well academically, according to the results of an international test of 15-year-olds. Historically, girls had performed somewhat better on reading and writing tasks, and the gap has begun to widen in recent years. In contrast, the gap in math and science has also begun to close (see Table 3.1). Perhaps even more important, in industrialized countries all over the world, more women than men are finishing high school and are going on to a university education.

Scholars and educators are not certain why these changes have taken place, but there are several theories. One theory is that there are economic reasons for women's superior performance. Men can often get good jobs even without a lot of education. It is harder for women to do this. Another possible reason is the attitude among boys that it is not "cool" to do well in school. Finally, some educators believe that schools now emphasize skills, such as reading and writing, and behaviors that favor girls over boys. Girls tend to mature earlier than boys and are better able to follow classroom rules, plan ahead, and to meet deadlines.

Consequently, in the United States and other countries, concern about academic achievement is shifting from girls to boys. Boys and young men have more social problems than girls and young women, both at school and after school. They are more likely to commit crimes and more likely to end up in prison than young women. These problems increase with young men who have not completed school. It is therefore increasingly important for educators to find ways to keep boys in school and to improve their academic achievement.



Table 3.1. Mean scores of 15-year-olds by country and gender (2006)

Country	Science		Math		Re	Reading	
	Males	Females	Males	Females			
Australia	527	527	527	513	495	532	
Belgium	511	510	524	517	482	522	
Canada	536	532	534	520	511	543	
Czech Republic	515	510	514	504	463	509	
Denmark	500	491	518	508	480	509	
Finland	562	565	554	543	521	572	
Germany	519	512	513	494	475	517	
Greece	468	479	462	457	432	488	
Hungary	507	501	496	486	463	503	
Italy	477	474	470	453	448	489	
Japan	533	530	533	513	483	513	
Korea	521	523	552	543	539	574	
Mexico	413	406	410	401	393	427	
Poland	500	496	500	491	487	528	
Portugal	477	472	474	459	455	488	
Switzerland	514	509	536	523	484	515	
Turkey	418	430	427	421	427	471	
United Kingdom	520	510	504	487	480	510	
United States	489	489	479	470	NA	NA	
Average Scores	501	499	503	492	473	511	

Source: 0ECD Factbook 2010: Economic, environmental and social statistics.