Many studies have been conducted regarding biological sex and its impact on academic achievement. However, they report conflicting results. Even when research has suggested there is a relation between sex roles and achievement, there has been little exploration of what components of achievement are most related to masculine and feminine gender types. This study examined the relationship between gender identity and study skills in undergraduates from a Mid-South University. Masculine characteristics were more strongly related to effective study habits than were feminine characteristics. Moreover, this relationship was more true for females than for males. Thus females having more masculine traits than feminine traits more than likely utilize effective study habits; however, in males, masculine traits are no better a predictor of effective study habits than are feminine traits. Gender-related characteristics, especially instrumentality, appear to be important for academic achievement. Two figures provide samples of the instrumentation used in the study: Study Habits Inventory and Personal Attributes Questionnaire. Two tables report results of the study. (JBJ)
Gender Roles and Study Habits

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Abstract

We examined the relationship between gender identity and study skills in undergraduates from a Mid-South University. Masculine characteristics were more strongly related to effective study habits than were feminine characteristics. Moreover, this relation was more true for females than for males. Gender-related characteristics, especially instrumentality, appear to be important for academic achievement.
Gender Roles and Study Habits

Education is of extreme importance in the world today. Academic success throughout the school years paves the way for the future. Our focus in the present research is on how gender is related to academic success. A great number of studies have been conducted regarding biological sex and its impact on academic achievement. However, there are conflicting results: some studies find sex differences and some do not. In our work, we narrowed our concern to one component of academic achievement, study habits. There is some reason to expect that differences in study habits may influence differences in achievement. For instance, females spend a considerably greater amount of time on homework outside of school than do males (Hagborg, 1991). As another example, females record more notes during lectures and recall more facts from lectures than do males (Risch & Kiewra, 1990). In their learning strategies, girls utilize “goal setting and planning” more often than do males (Zimmerman & Martinez-Pons, 1990). However, another study reported that female medical students were less apt to focus on facts and logical analysis, or to pay close attention to details, than were males (Gledhill & Van der Merwe, 1989). Thus, there are some sex differences that are found relatively consistently, but the differences go in both directions, and it is not clear where these differences originate.

Biological sex may not be the real base for differences between males and females in academic success. Instead, differences could be a function of gender, or of being masculine or feminine. For example, research in college students has shown that those categorized as having a masculine gender type perform significantly better on the Wechsler Adult Intelligence Scale arithmetic subtest than do subjects who are identified as having a feminine gender type (Selkow, 1985). However, gender type does not always yield consistent relations with academic success. Sometimes both masculine and feminine orientations are important and equal (e.g., Plake, Kaplan, & Steinbrunn, 1986). Other times, a feminine identity seems beneficial. For example, in middle school, students with more feminine identities performed better across each of five subjects, including math and social studies, than did students with a masculine gender type (Burke, 1989).

Even when research has suggested that there is a relation between sex roles and achievement, there has been little exploration of what components of achievement are most related to masculine and feminine gender types. In the present study, we investigated the relation between one critical component of academic achievement, study habits, and gender type. We hypothesized that if gender roles are related to achievement, the relation should be reflected most strongly in how people approach academic tasks; that is, in their study habits.

Two questions were of primary concern in this study. First, is there a relationship between gender identity and study habits? That is, which is more strongly related to effective study habits, masculine or feminine characteristics, or are they equally important? The second question is whether masculinity and femininity relations with study habits are the same for both males and females. That is, if there are any relations, do they differ for males and females?

Before addressing these two questions, a brief explanation is in order of what characteristics are considered to be masculine, and, what are feminine. In the Personal Attributes Questionnaire (PAQ; see Spence, 1984, 1985, for an overview and discussion of the PAQ), the sex role instrument used in this study, masculine traits are those that are instrumental. For example, independence and decisiveness are considered instrumental traits. Feminine traits are those that are more expressive. Such traits as kindness and awareness of others’ feelings are considered as expressive. Thus, when we talk about masculine traits, we mean those that are instrumental and are judged masculine, whereas feminine traits are expressive and are judged to be feminine.

To answer our questions, 50 males and 82 females were presented with the Personal Attributes Questionnaire and with a modified version of the Study Habits Inventory (Jones & Slate, 1992). Figure 1 gives some examples of items from the Personal Attributes Questionnaire.

Insert Figure 1 about Here

Figure 2 gives some examples from the modified Study Habits Inventory.
Before addressing our primary questions, it should be noted that males did in fact report greater masculinity, $t(130) = 2.27, p < .05$, and females did report greater femininity, $t(130) = 2.96, p < .01$. Males and females did not differ in reported study habits, $t(130) = -1.14, p > .10$.

Our first question was whether gender type is related to study habits. In fact, a relation was found between gender type and study habits. Masculine characteristics are more strongly related to effective study habits than feminine characteristics. The correlations shown in Table 1 indicate a significant correlation between masculinity and study habits, $r(128) = .31 (p < .001)$, whereas for femininity and study habits the correlation was $-.18 (p < .05)$.

Thus, instrumental or masculine characteristics seem to be important for effective study habits. Feminine characteristics, if anything, are negatively related to effective study habits.

Our second question was whether the relations hold for both males and females. Table 2 shows the correlations separately for males and females.

There was not a significant correlation between masculinity and study habits for males $r(48) = .17, p > .1$. However, the correlation was significant for females, $r(80) = .42, p < .001$.

What does this all mean? What this means is that characteristics that are considered masculine are more apt to be correlated with better study strategies than feminine characteristics. That is, females having more masculine traits than feminine traits more than likely utilize effective study habits; however, in males, masculine traits are no better a predictor of effective study habits than are feminine traits. That is, whether or not males are more masculine or more feminine than other males does not seem to have any effect on their study habits.

To find out what aspects of masculinity are most related to study habits in females, we conducted a stepwise multiple regression analysis using the 8 masculine items from our survey. Two items combined accounted for 23% of the variation in study habits - being independent and making decisions easily. However, such masculine characteristics are predictors of effective study habits only in females.

From where do these traits come? It would appear that they are learned early in life. For example, Carpenter and Huston-Stein (1980) discovered in their research that, regardless of sex, those preschool children who were placed in "low-structure activities," activities which promoted children to "control the environmental setting," were found to be more dominant and independent, which are typical instrumental traits. In contrast, those children placed in "high-structured activities," characterized by adult feedback and clearly established rules, tended to exhibit typical expressive behaviors such as dependency and compliance. Perhaps learning, social, and play environments in which children are placed by caretakers and teachers promote different role expectations from children, thus accounting for some variation in study habits exercised by masculine and feminine students. If males and females experience different environments and expectations, different relations between gender type and study habits could be expected.

Another possible explanation for these findings could be that students who are more masculine than feminine elicit attitudes and behaviors perceived as positive by teachers. The educators, in turn, could unknowingly encourage the more masculine students to perform better academically, hence promoting better study strategies. It is likely to be a mixture of both explanations.

What do these data suggest? First, we all need to be more sensitive to the nature of the students' behaviors and how that impacts on their academic achievement. Second, we may want to try to foster more instrumental behaviors, especially in females.
References


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Figure 1

Example Items from the Personal Attributes Questionnaire

**Masculine Items**

Not at all independent 1...2...3...4...5 Very Independent
Very Passive 1...2...3...4...5 Very Active
Can make decisions easily 1...2...3...4...5 Has difficulty making decisions

**Feminine Items**

Not at all emotional 1...2...3...4...5 Very emotional
Not at all helpful to others 1...2...3...4...5 Very helpful to others
Not at all kind 1...2...3...4...5 Very kind
I get up, write notes to my friends, or look at other people when I should be studying.

I have to wait for the mood to strike me before attempting to study.

I have a tendency to doodle or daydream when I am trying to study.

As soon as possible after class, I recopy my notes.

I make a preliminary survey by skimming a chapter before reading it in detail.

I work out personal examples to illustrate general principles or rules that I have learned.

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Table 1
Correlations Between Masculinity, Femininity, and Study Habits

<table>
<thead>
<tr>
<th></th>
<th>Masc.</th>
<th>Femin.</th>
</tr>
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<tr>
<td>Masculinity</td>
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<td></td>
</tr>
<tr>
<td>Femininity</td>
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<td>----</td>
</tr>
<tr>
<td>Study Habits</td>
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<td>-.18</td>
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</table>

Note: All rs are significant, p < .05.

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Table 2
Correlations Between Masculinity, Femininity, and Study Habits by Sex

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<tr>
<td>Study Habits</td>
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<td>-.14</td>
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*p < .01