

# **Gender Differences in Computer Learning Motivation and Computer Attitudes among Adult Population/**

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## **Abstract**

In recent years, we can see that there are differences between the genders in many fields, including computers. The gaps are still in favor of men, resulting from biological and socio-environmental factors, which influence us in different ways whether we born males of females. The purpose of the research is to examine whether there are differences between men and women in computer learning motivation; whether there are differences between men and women in computer attitudes; and whether there are differences between men and women in the type of courses they enroll to, among adult population (18 of age and above).

the research took place, for the first time, in a private computer school 'Sight and Sound' in Tel-Aviv in the second half of the year 2001. The population in this study included 294 participants (83% women) while the age average is 28. About half of the participants are of high school education, one-quarter of above high school education (not academic), and one-quarter of academic education.

A questionnaire of four tools was used in this research: a computer-use evaluation questionnaire (was composed especially for this research), a demographical questionnaire (was composed especially for this research), a computer learning motivation questionnaire (based on a questionnaire of harter, 1981) and computer attitudes questionnaire (based on a questionnaire of massoud, 1991).

The current research examined three hypothesis. The first hypothesis referred to the differences between men and women in computer learning motivation. While men will be more of intrinsic computer learning motivation, women will be more of extrinsic computer learning motivation. Motivation is defined, in literature, as a totality of forces, which stimulates and motivates individual to carry out an action.

This set of motives is different from individual to individual and affects the way he see the word, the way he think and the way he acts. Researchers who examined motivation in general and learning motivation in particular, distinct between two resources of motivation – intrinsic motivation (making an action for the purpose of it) and extrinsic motivation (making an action for the benefit of it). The results, in this research, indicate a significant difference only in the reference of intrinsic motivation. The finding was that the intrinsic motivation among men is higher than women, but there was not found a significant difference in the part of the hypotheses that women have a higher extrinsic motivation (however, women have a slightly higher average of extrinsic motivation than men). In addition, differences between levels of intrinsic motivation and levels of extrinsic motivation, in the two groups (men and women) were examined, and the findings indicate that among women and men, the intrinsic motivation is higher than the extrinsic motivation. However, the gap among men is higher than the gap among the women.

The second research hypothesis referred to the differences between men and women in the type of computer courses they enroll to, so that women will enroll to computer courses of verbal skills' nature, while men will enroll to computer courses of mathematical skills' nature. In this research, differences between men and women were found only in relation to touch-typing course (verbal skills) and the advanced Excel course (mathematical skills). As for the other courses there was no significant differences between men and women.

The third research hypothesis referred to the differences between men and women in computer attitudes, so that men will have a more positive attitude towards computers than women; women will show less confidence in working with computers, will show less liking to computers and will show more anxiety towards computers, than men. The findings, indeed, show that men have more positive attitudes towards computers so that compare to women, men like more, working with computers, have more confidence and have less anxiety towards computers. Additionally, a perception of working with computers was examined by three direct questions, and indeed, there was found that men's perception of working with computers is more positive than among women, and this findings support the research hypothesis.

It was also examined, the main reason of the research participants for enrolling the course. The findings was that about half of the women enrolled the computer courses as a result of there working place demand, as oppose to one-quarter of the men. And, most of the male participants (two third) enrolled computer courses for self-enrichment, independence and challenge in comparison to one-third only among women.

Likewise, the research participants were asked about there experience with computers: whether they use computers; for what needs; when did they start working with computers; and how may hours per week they use computers. Most of the research participants reported of using computers. As for the frequency of the use of computers, it was found that more men use computers compare to women. It seems that most men use computers for work needs as well as personal needs. While among women only one-third use computers for work needs, another third use computers for personal needs and another third use computers both for work and personal needs. It was also found that half of the men report of using computers more than 10 hours per week, while only one-third among women report of using computers more than 10 hours per week.

The current research is a pioneer in it's field in Israel and rises more questions that can be a bases for more researches in the field – examine the perimeter of the gender differences among other private computer schools in the country; whether there are differences within the male and female groups by gender-typing and not only by biological-typing. As a result of that, we should also examine how can the gaps can be minimized by involving more technology from young age, in kindergartens, in elementary schools and in high schools, that may bring gender equality.

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