Gender Differences in Computer Attitudes, Interests, and Usage at an Elite High School

By

Marilyn Joan Whinnerah Anderson

(Abstract)

A descriptive case study examined the gender differences concerning computer technology (IT) by a convenience sample (N = 180, 76%) of 11th and 12th graders at an elite public high school, recently named the “second best high school in America” (Newsweek, 2000), in suburban Northern Virginia. The purpose of the study was to examine the apparent discrepancy in male and female differences in computer use, interests, and attitudes.

The research design included a student questionnaire combining the Computer Attitude Rating Scale (CARS, Heinssen, Glass, & Knight, 1987) and the Attitudes toward Computer Technology (ACT, Delcourt & Kinzie, 1993) with demographic and academic data (GPA, PSAT, and SAT I), and the Strong Interest Inventory (Strong, 1994). Chi-square tests of association for categorical data and t tests for independence of means for metric data were used to analyze the data, which resulted in several statistically significant relationships (p = < .05) and meaningful effect sizes (> .70).

The results were higher mean scores for the Strong Realistic General Occupational Theme (males) and Artistic Theme (females); the Athletic and Mechanical Basic Interest Scales (males) and Music/Drama, Art, Culinary Arts, and Social Service Scales (females), and Risk-Taking Personal Style Scales (males) and Working Style with People (females). Females also had higher GPAs, levels of computer anxiety, resistance to technology, and avoidance of careers and study in computer fields. Females chose Pre-Medicine majors to help others and males chose Computer Science majors to gain financial rewards.
The implications for practice and research included: female technology internships, mechanical and technical training, computer anxiety group counseling, cooperative learning and hands on instruction, female-friendly computer and computer science classes, equal access to computers at all grade levels, student-parent information programs concerning the many opportunities and high paying jobs available in computer technology, female orientated computer games, and more non-linear computer programs and activities that encourage females to “have fun” with computers and not view them as machines. A longitudinal study of the current sample, research at other grade levels and locations were recommended.
ACKNOWLEDGEMENTS

The writer thanks Dr. Octavia Madison-Colmore and Dr. Gabriella Belli, the chairpersons of my dissertation committee, for their continued support, encouragement, and expertise in helping me complete this study. They gave their valuable time and energy to help me throughout the past two years and without their assistance this project would not have been possible. The writer is also grateful to the other members of the committee, Dr. Libby Hoffman, Dr. Richard Paritzky, and Dr. Sandra Stith, who assisted me in many ways. The writer is especially grateful to Bob Snee and Mary Ellen Shaw from the Falls Church City Schools who allowed me to use the facilities, records, and students to carry out this study. A special thanks goes to the members of the 1999 junior and senior classes of the High School who made this study possible with their interest, cooperation, and support first in the focus group and then in filling out the student questionnaires.

The writer is indebted to my husband, Edwin Knowles Anderson, for his love, patience, understanding, and support during this project, my two children, Kevin and Cynthia, and my son-in-law Ivan and grandson, Sacha for their belief in me.

The writer is also indebted to my father, Richard Walter Whinnerah, for his intellect and drive, and to my mother, Dorothy Lela Clark Whinnerah, for the caring and social empathy she modeled.

Finally, I would like to thank the Counselor Education, Educational Research, and Family and Child Development Departments of Virginia Polytechnic Institute and State University at the Northern Virginia Graduate Center for making learning in my sixties every bit as challenging and exciting as it was in my twenties and thirties.
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