The Effect of Teaching Method via Computer on Students' Anxiety

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Abstract

The purpose of this study was to examine the effects of teaching method via computer on students' level of anxiety with respect to the gender, computer experiences, and academic achievement. The sample consisted of 40 students (21 females and 19 males) from the Faculty of Physical Education at the University of Jordan. The participants who enrolled in a required undergraduate course of methods of teaching physical education class during the second semester of 2003/2004 were selected purposely. The participants were taught via Computer-Assisted Instruction (CAI) method for ten weeks. The results of data analysis of the anxiety scale indicated that teaching method via computer reduced student's level of computer anxiety from pre-tests to post-test, they

scored significantly lower in the post test. The results also indicated that there were no significant differences between male and female students on computer anxiety tests. In addition, regarding students experiences, students with more than one year of computer experiences had lower level of computer anxiety than students with less than one year of computer experiences and students without computer experiences in pre and post tests. Students with more than one year of computer experiences scored significantly lower; furthermore, students with less than one year of experiences scored significantly lower than students without computer experiences in pre and post tests. Finally, students with high GPA scored significantly lower than students with low GPA. The researcher recommends that the CAI programs used in this study could also be used in other courses and other Faculties of Physical Education in Jordan Universities as an effective alternative to the traditional method of teaching.

Introduction

In recent years, computer has become a common-place in education, science, business, government, homes, and our personal lives; it is part of our everyday life. Alhayek (2003) mentioned that computer technology has been increasingly used in educational process at all levels, it becomes an integral part of most academic majors, and has changed the way of teaching and learning process. Even though, there is no doubt that not all students' reactions to computers are positive, many of them experience some level of anxiety especially when they first encounter computer technology; this might cause them to avoid using computer partially or completely. Computer anxiety might also debilitate effects on students' achievement and/or performance. According to Weinberg and Fuerst (cited in Parker, 1990) 30 percent of students in the primary and secondary grades, as well as college students, experience computer phobia. McInerney, McInerney, and Sinclair (1994) stated that negative cognitions toward computers may accompany feelings of anxiety, including worries about embarrassment, looking foolish, or even damaging the some computer equipments. Related to literature review, there were different definitions for computer anxiety, but the most common definitions agree with Loyd & Gressard, (1984) definition who defined it as a simple fear of working with computers. Also, Paker (1990) defined computer anxiety as any sense of apprehension or fear associated

with the use of computers; synonyms: computer fear, computer stress, computer phobia, computer aversion.

Related Studies

From the researcher's literature review, studies had examined different students characteristics (age, gender, attitudes toward computers, computer self-efficacy), computer experience, and computer achievement), and had showed inconsistent results with respect to these variables.

ALhayek and Adeeb (2006) conducted a study to investigate the effects of using computer in teaching physical education curricula on physical education students' attitudes towards using computer, with respect to gender, computer experience, and academic achievement. The sample consisted of 101 students enrolled in two courses: one at the University of Jordan, and the second at Alhashimia University. The results indicated that there were statistically significant differences between two groups, the University of Jordan students scored higher, also female group, students with high computer experience, and students with high academic achievement (GPA) scored significantly higher than others.

ALhayek (2004) conducted a study to examine the effects of using Computer-Assisted Instruction on physical education students' attitudes toward computer. The sample is consisted of 56 students who enrolled in

the course of methods of teaching physical education at the University of Jordan. The results indicated that there were significant differences between students' attitudes before and after teaching via computer on all dimensions of the scale. However, no significant differences were indicated between the female group and the male group.

ALhayek (2003) conducted a study to examine the effects of using Computer in teaching basketball skills on students' performance. The sample consisted of two separate groups of undergraduate physical education students from the University of Jordan(47). The results of data analysis indicated that the experimental group performed significantly higher than the control group in the jump shot and dribbling tests. However, no significant differences were found in the chest pass test. The results also indicated that the male group performed significantly higher than the female group in the three performance tests.

Ropp (1999) conducted a study to investigate the relationships among individual teacher characteristics that might change through experience and instruction. Fifty three pre-service teachers in a semester-long course completed surveys measuring computer attitudes, technology proficiency, computer anxiety, computer self-efficacy, and computer coping strategies. The results indicated that significant correlations among all but computer coping strategies. Significant improvements in technology proficiency, computer self-efficacy, and computer coping strategies occurred from the beginning to the end of the course, which included

hands-on training and classroom discussion of technology. Behavioral characteristics appeared to improve with experience and instruction where as affective characteristics remained relatively stable.

King (1995) studied three classes of seventh-grade students who were exposed to microcomputers during a nine-month period. Pre and post interviews and computer-opinion survey from which a computer-anxiety index was derived were administered. Results from the computer-opinion survey and from selected interviews revealed that factors other than computer anxiety explained an increase. These included frustration related to lack of access, students' prior perception of computers as game devices, and teacher attitudes toward computer use. A significant interaction between gender and class group was also found.

The study of Overbaugh and Reed (1995) examined the comparative effects of an introductory computer course versus a content-specific computer course on computer anxieties and concerns of student educators. The stages of concern instrument were used to track and compare changes in pre-service and in-service teachers' concerns about computer. The results indicated that the introductory class and the content-specific class reduced their computer anxiety.

Maurer and Simonson (1994) conducted a study to examine computer anxiety and its relationship with four areas: previous computer coursework, relaxation exercises, achievement in a computer course, and

need for cognition. Subjects were college students in a semester-long introductory computer course that was part of a teacher preparation program. Computer anxiety was measured three times during the course using the computer anxiety index. The results indicated that the course was effective in reducing computer anxiety in the last half of the semester. The relaxation treatment was not found to be effective in reducing computer anxiety. It was found that course grades were more strongly related to post-course computer anxiety than to pre-course computer anxiety. A significant relationship was also found between need for cognition and reduction of computer anxiety**.**

Based on the research's knowledge, this study is the first in the field of teaching physical education via computer and its effects on students' anxiety, it attempts to investigate if computer anxiety exists among physical education students and whether it determines the level of the computer anxiety that they have. It also examines the effects of teaching method via computer on students' level of computer anxiety.

The Purposes of the Study

The purposes (Aims) of this study were:

- To examine the effects of teaching method via computer on physical education students' anxiety toward using computer.
- To identify the effects of gender, computer experiences, and academic achievement on physical education students' anxiety toward using computer.

Method

The Subjects

The participants in this study were 40 students (21 females and 19 males) from the Faculty of Physical Education at The University of Jordan. They enrolled in section (1) of a required undergraduate course of methods of teaching physical education class during the second semester of 2003/2004; they were selected purposely. Tables 1 &2 show the distribution of the participants regarding gender, previous computer experiences (no experience group, less than one year computer experience group, and more than one year computer experience group), and academic achievement (low GPA group and high GPA group). The participants met for three hours per week. The duration of this study was ten weeks.

Table 1: Distribution of the Subjects Regarding Gender and Computer Experiences

Gender / Exp.	Males	Females	Total
No Computer Experience	8	5	13
Less then 1 Year of Computer Experience	6	8	14
More than 1 Year of Computer Experience	5	8	13
Total	19	21	40

Table 2: Distribution of the Subjects Regarding Gender and Academic Achievement (GPA).

Gender / GPA	Males	Females	Total
Low GPA	**7**	**6**	**13**
High GPA	**12**	**15**	**27**
Total	**19**	**21**	**40**

Statement of the Problem

In the modern countries, the topic of computer anxiety and its effects in the use of computers gained an increased attention in the literature few years ago (King 1995); on the other hand, from the researchers point view, computer anxiety needs more attention in our development countries, to identify its relationship to other personal variables, and its effects on students learning and achievement. This study attempts to give more attention to students' computer anxiety in our schools. In order to determine what can be done to reduce its level and then to better meet the diverse and varying needs of students. From our working experiences with schools and universities, the students have high level of anxiety toward using computer, and it needs to determinine its level. In this regard, Morgan (1997) found that the use of computers by people appears to be limited due to the prevalence of anxiety of computers, and the negative attitudes towards computers in general.

Furthermore, from the researchers' review of related literature, it is clear that additional research is needed to examine the effectiveness of using Computer-Assisted Instruction (CAI) in physical education students' anxiety. After the process of reviewing related studies, the researchers could not find any published studies conducted in the field of teaching physical education via computer and its effects on students' anxiety, especially in the Arab world. In addition, the use of CAI in teaching physical education is still not popular around the world. Adams (2000) and Wilkinson and Richard (1999) mentioned that the studies related to the use of computer in physical education is not common as in other subjects such as math, science, and English. Some researchers who have attempted to understand the literature in computer anxiety often suggested that more researches were needed (Adam, 2000; Overbaugh & Reed, 1995, and Maurer & Simonson. 1994). Therefore, it was felt that there is a need for such study in this field to help with:

a- Filling part of the lack of knowledge which exists in current researches by providing fundamental information and useful knowledge for the interested professionals in modern instructional method.

b- Answering whether instruction, experience, and academic achievement can reduce students' anxiety**.**

c- Providing an anxiety scale that measures physical education students' anxiety toward using computer.

Study hypotheses

As a result of the related reviewed literature the following hypotheses were formulated regarding the main purpose of this study:

H_o: There were no significant differences at (α =0.05) in students' anxiety toward using computer with respect to teaching method.

H_o: There were no significant differences at (α =0.05) in students' anxiety toward using computer with respect to gender.

H_o: There were no significant differences at (α =0.05) in students' anxiety toward using computer with respect to computer experiences.

H_o: There were no significant differences at (α =0.05) in students' anxiety toward using computer with respect to academic achievement.

Procedures

- The questionnaire was distributed to the participants during the first week of the class to assess their anxiety toward using computer before starting this study.
- The researcher taught students the required curriculum of methods of teaching physical education course via computer by using CD software, Microsoft word, Power Point and the Internet for ten weeks.

- The same questionnaire was distributed to the participants following the last class period of the study.

The Students' Anxiety toward Using Computer Scale

The scale of students' anxiety toward using computer was created by the researcher. He developed this scale based on some researches and studies that discussed the students' anxiety and attitudes toward using computer such as Alahyek, 2004; Mitra & Steffensmeier 2000; Compeau & Higgins 1999; Ropp, 1999; Selwyn, 1997; Delcourt & Kinzie, 1993; McInverny et al., 1994; and Heinssen et al. 1987. The intent of this scale was to assess each student's level of computer anxiety before and after he/she learned by computer in the actual class. (See Appendix 1). The final version of this scale consisted of 30 traits, using a 5-point Likert-type scale, items ranging from 1 (strongly agree), 2 (agree), 3 (neutral), 4 (disagree), and 5 (strongly disagree). These items were distributed into the following four dimensions (These items are in the same numerical order as in the measure of this study: computer skills dimension (1, 3, 6, 8, 10, 13, 17, and 23); computer liking dimension (5, 7, 19, 24, 26, 28,and 30); future job dimension (2, 12, 15, 20, 22, 25, 27, and 29); and self-confidence dimension (4, 9, 11, 14, 16, 18, and 21). The total score of the measure ranged from 30 to 150. Students were also asked to provide demographic information about themselves such as: gender, previous computer experience, and academic achievement (GPA).

The researcher of this study established the validity and the reliability of the measure before conducting this study. The content validity was established by having five experts from Faculty of Physical Education at Jordan University and one from Faculty of Educational Science at Al-Balqua Applied University reviewing and approving the measure. The panel of experts examined the measure and agreed that it did assess what it was supposed to assess. The reliability of the measure was established by using Cronbach's Alpha, as a measure of consistency coefficient. The reliability coefficients were (0.82) which means that the measure was reliable.

Variables of the Study

The independent variables were the teaching method, academic achievement (were two levels: high and low academic achievement that were determined based on University of Jordan grades scale), computer experiences (were three levels: without computer experiences, less than one year computer experience, and with more than year computer experiences, that were determined based on Woolsey's (1986) classification), and gender (females and males), while the dependent variable was the students' anxiety toward using computer.

Data Analysis

A score for each test was determined for each student. Independent T- Test and ANCOVA were used as the appropriate statistical tool to test

the null hypothesis. Based on the research hypothesis, data was analyzed using the Statistical Packages for Social Sciences (SPSS) version 11.0. The .05 level of significance was selected to determine if any differences between the pre and post- tests in the comparison was statistically significant.

Results

This study measured four different variables: teaching method, gender, computer experiences, and academic achievement. The results showed that students scored on computer anxiety scale lower after they were taught via computer than it was before. This meant that teaching via computer reduced students' level of computer anxiety. Tables 3, 4, 5, 6 and 7 indicated that the results of data analysis are as follows:

- Teaching methods via computer (CAI) reduced student's level of computer anxiety from pre-test to post-test, students scored significantly lower in the post test.
- There were no significant differences at (α =0.05) between male and female students on computer anxiety tests.
- Students with more than one year of computer experiences had lower level of computer anxiety than students with less than one year of computer experiences and students without computer experiences in pre and post tests. Students with more than one year of computer experiences scored significantly lower than other two groups; also

students with less than one year of experiences scored significantly lower level of computer anxiety than students without computer experiences in pre and post tests.

- There were significant differences at (α =0.05) between students with high GPA and students with low GPA, students with high GPA scored significantly lower.

Table 3: Means, Standard Deviations, and T-Test of Pre and post-test Scores Analysis of the Four Dimensions and the Total of Computer Anxiety scale.

Dimensions	Pre- test		Post- test		T Value	Sig
	M	SD	M	SD		
Computer Skills	17.100	7.088	12.825	4.425	3.236	Sig
Computer Liking	17.250	6.352	12.550	3.679	4.050	Sig
Future Job	17.875	6.775	12.975	3.475	4.070	Sig
Self-Confidence	16.225	6.522	12.500	3.602	3.162	Sig
Total	68.450	25.717	50.850	14.528	3.769	Sig

As can be seen in Table 3, there were significant differences at (α =0.05) between students' scores in pre- test and post test in their levels of computer anxiety with respect to computer skills, computer liking, future job, and self-confidence dimensions and the overall of the dimensions of the computer anxiety scale. Students scored significantly

lower in the post test. Therefore, the first hypotheses of "there were no significant differences in students' anxiety toward using computer with respect to teaching method" was rejected.

Table 4: Means, Standard Deviations, and T-Test of Post-test Scores Analysis for the Female and Male Groups According to the Four Dimensions and the Total of Computer Anxiety scale.

Dimensions	Female Group		Male Group		T Value	Sig
	M	SD	M	SD		
Computer Skills	12.714	3.393	12.947	5.441	.164	N Sig
Computer Liking	12.190	3.281	12.497	4.129	.645	N Sig
Future Job	12.667	3.152	13.316	3.859	.585	N Sig
Self-Confidence	12.095	3.254	12.947	3.993	.743	N Sig
Total	49.667	12.567	52.157	16.684	.507	N Sig

Table 4 showed that there were no significant differences at (α =0.05) between female and male groups in their level of computer anxiety with respect to computer skills, computer liking, future job, and self-confidence dimensions and the overall of the dimensions of the computer anxiety scale. Therefore, the second hypotheses of "There were no significant differences in students' anxiety toward using computer with respect to gender" was accepted.

Table 5 : The Means and Standard Deviations of Pre and Post-test Scores of the Four Dimensions and the Total of Computer Anxiety scale for the Three Experiences Groups.

Groups Experiences	Pre- Test		Post Test	
	M	**SD**	**M**	**SD**
- Group one: > 1 year				
Computer Skills	10.692	1.750	9.385	1.805
Computer Liking	11.692	1.570	9.353	2.063
Future Job	12.154	1.345	9.462	2.106
Self-confidence	10.615	4.032	9.077	2.397
Total Scale	45.154	7.232	37.307	7.232
- Group two: < 1 year				
Computer Skills	15.500	1.951	11.357	3.650
Computer Liking	14.929	2.615	11.571	2.138
Future Job	15.643	2.274	12.643	1.646
Self-confidence	14.214	2.082	12.000	1.881
Total Scale	60.286	7.076	47.571	7.929
- Group three: no exp.				
Computer Skills	25.231	2.085	17.846	1.819
Computer Liking	25.308	2.250	16.769	1.878
Future Job	26.000	3.385	16.842	1.463
Self-confidence	24.000	1.606	16.462	1.613
Total Scale	100.53	9.179	67.923	5.187

Table 5 showed the means and standard deviations of pre and post-test scores with respect to computer skills, computer liking, future job, and self-confidence dimensions and the overall of the dimensions of the

computer anxiety scale for the three experiences groups (group with more than one year computer experiences, group with less than or equal to one year of computer experiences, and group without computer experiences). Students with more than one year of computer experiences had lower means on the computer anxiety scale than the other two groups in pre and post tests; also, students with less than one year of computer experiences had lower means on the computer anxiety scale than students without computer experiences in pre and post tests.

Table 6: Analysis of Variance (ANCOVA) of Pre and Post-test Scores of the Four Dimensions and the Total of Computer Anxiety scale for The Three Experiences Groups

Source of Variation	SS	DF	MS	F	P
- Computer Skills					
pre-skill	5.598	1	5.598	.818	.372
Experience	99.711	2	49.856	7.285	.002
Error	246.385	36	6.844		
Total	7343.00	40			
- Computer Liking					
pre-liking	6.998	1	6.998	1.728	.197
Experience	29.825	2	14.913	3.682	.035
Error	145.815	36	4.050		
Total	6828.00	40			

- Future Job					
pre-future job	.607	1	.607	.193	.663
Experience	86.198	2	43.099	13.667	.000
Error	113.530	36	3.154		
Total	7205.00	40			
- Self-Confidence					
pre-self con.	3.616	1	3.616	.913	.346
Experience	65.986	2	32.993	8.33	.001
Error	142.538	36	3.959		
Total	6756.00	40			
-Total 4 Dimensions					
pre-4 Dimensions	57.618	1	57.618	1.122	.297
Experience	702.915	2	351.458	6.841	.003
Error	1849.50	36	51.375		
Total	111660.0	40			

As can be seen in Table 6, there were significant differences at (α =0.05) among the three experiences groups in their level of computer anxiety with respect to computer skills, computer liking, future job, and self-confidence dimensions and the overall of the dimensions of the computer anxiety scale. Students with more than one year of computer experiences scored significantly lower than the other two groups; also, students with less than or equal to one year of computer experiences scored significantly lower than students without computer experiences.

Therefore; the third hypotheses of "There were no significant differences in students' anxiety toward using computer with respect to computer experiences" was rejected.

Table 7: Means, Standard Deviations, and T-Test of Post-test Scores Analysis for The Low and High GPA Groups According to the Four Dimensions and the Total of Computer Anxiety scale.

Dimensions	Low GPA Group		High GPA Group		T Value	Sig
	M	SD	M	SD		
- Computer Skills	14.308	5.453	12.111	3.745	1.311	N Sig
- Computer Liking	14.923	3.593	11.407	3.190	3.004	Sig
- Future Job	14.615	2.434	12.185	3.659	2.491	Sig
- Self-Confidence	14.769	2.833	11.407	3.456	3.266	Sig
- Total	58.615	13.817	47.111	13.557	2.481	Sig

Table 7 showed that there were significant differences at (α =0.05) between the low and high GPA groups in the level of computer anxiety with respect to computer liking, future job, and self-confidence dimensions and the overall of the dimensions of the computer anxiety scale. Students with high GPA scored significantly lower. However, there was no significant difference between the two groups with respect to the computer skills dimension. Therefore, the fourth hypotheses of "there were no significant differences in students' anxiety toward using computer between pre and post test with respect to academic achievement" was rejected.

Discussion

The results of the pre and post-tests showed that the instructional methods via computer reduced the level of students' computer anxiety with respect to computer skills, computer liking, future job, and self-confidence dimensions and the overall of the dimensions of the computer anxiety scale. The explanation for these results can be referred to the following reasons: first, the instructional method (using CD, PowerPoint, Microsoft word, and the Internet) was effective in reducing students' anxiety toward using computer. These results were consistent with the studies of Alhayek 2004; Berkowitz 2000; Mckethan & et al 2000; Hakkinen 1994 and Reed and Overbaugh 1993) who found that using computer in teaching changed students' attitudes toward computer positively. Other studies in different fields examined the change in students' computer anxiety as a result of involvement in computer-related instruction such as the study Bozeman & Spuck 1991; Honeyman & White, 1987; Chapline & Turkel, 1986; and Thompson, 1985. In this regard, Torris, (1984) mentioned that computer anxiety is usually thought of as a temporary condition that can be overcomed by using and learning in a suitable environment structured (sited in Overbaugh and Reed, 1995). The second reason can be referred to the length of the study that might help to reduce students' anxiety toward using computer. Maurer & Simonson (1994) suggested that a longer time of teaching by using computer showed significant reduction in computer anxiety. The third

reason is the assignments that students had completed by using different computer programs helped them to gain some computer skills and to become more confident in their computer abilities**.** Finally, students' commitments were one of the reasons that helped them to reduce their computer anxiety. In contrast with previous results, McInerney et al. (1994) found that there were some students who experienced continuing anxiety at the end of a computer training class.

Regarding gender the results indicated that there were no significant differences between female and male students in their levels of computer anxiety with respect to the four dimensions and the overall computer anxiety scale. The explanation behind these results were that both groups had faced similar academic experiences such as the study level (freshman and sophomore), teaching methods, professors, courses work, and using the same university facilities. These results were consistent with the result of Alhayek (2004) and Campbell (1989) who found that there were no differences between male and female students in computer attitude and anxiety, while in contrast with these results, Igbaria (1990) and Deremer (1989) who found that there were differences between gender and computer attitudes. On the other hand, Table 7 illustrated that there were significant differences between the low GPA and the high GPA groups in the level of computer anxiety. The reason behind this result is that students with high GPA used to work effectively to get higher grade in this course. These results were consistent with the study of Abu Jaber

and Abu Omar (2000) and Maurer & Simonson (1994), while Alhayek (2004) and Altity (1988), found that there were no significant differences between the two groups.

Regarding computer experiences, the main question that this study attempted to answer was: whether experience and instruction can reduce students' anxiety. Tables 6 & 7 showed that there were significant differences among the three experiences groups (group with more than one year computer experiences, group with less than or equal to one year of computer experiences, and group without computer experiences) in their levels of computer anxiety. Students with more than one year of computer experiences scored significantly lower than the other two groups in their level of computer anxiety; while students with less than one year of computer experiences scored significantly lower than students without computer experiences in their level of computer anxiety. These results were consistent with the study of Rosen, Sears and Weil (1987) who found that computer experience made students feel more knowledgeable about computers. While in contrast with these results, Ropp (1999) stated that research has shown that there is often a negative relationship between prior computing experience and computer anxiety. On the other hand, Tables 6 & 7 revealed that the group with no previous computer experiences had a significantly greater reduction in their mean scores from pre to the post tests than those who had more computer

experiences. These results were consistent with the study of Maurer & Simonson (1994).

Conclusion

This study strongly supported the position that teaching via computer can be effective in reducing students' computer anxiety. Computer-related experience does influence computer anxiety, the more experiences students have the lesser computer anxiety they feel. Also, the groups with no and less previous computer experiences had significantly greater reduction in their computer anxiety feeling from pre to post tests than those who had more previous experience, respectively. The GPA had affected students' computer anxiety positively. There was no relationship between gender and computer anxiety.

Recommendations

1- The researcher recommends that the CAI programs used in this study could also be used in other courses and other Faculties of Physical Education in Jordan Universities.

2- These findings suggest that the CAI method can be used as an effective alternative to the traditional method of teaching.

3- Future research is needed to investigate how a variety of computer experiences over longer periods of time might influence students' psychological characteristics.

4- Future research continues to clarify the relationship between students' achievement in the current course that they study and computer anxiety.

5- Further research is needed to examine personal characteristics as they relate to computer anxiety.

6- Further research is needed to compare the anxiety between physical education students at Jordan University and other Universities.

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Appendix 1

Demographic Information:

- Sex: ----------Male ----------Female

- GPA: ……of 4.00

- Experiences: Check one

1- No Experience: ( )

2- Less than one year Experience: ( )

3- More than one year Experience: ( )

Please read each of the following statements listed below and indicate how much you personally agree with each by checking (x) on the appropriate response.

1= strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree:

No	Statements	1	2	3	4	5
1	I could not complete my job on computer if there was no one around to help me what to do as I go					
2	I hesitate to apply for a job that requires some computer skills in future					
3	Based on my computer skills, I feel that I need longer time to complete the same of others' job					
4	I do not think that I would be able to learn more computer skills					
5	I do not like to use computer because it is boring					
6	I get confuse when teacher asks me use computer skills that I do not know					
7	I do not like to use computer at all					
8	Learning to use computers takes long time					
9	You have to be a genius person to understand and use the computer's orders and keys					
10	The quality of output of my job is really lower than others					
11	I do not like to use a computer when other students are around					
12	Thinking about applying for a future job that requires some computer skills disappointed me					
13	I could not work on computer if there is no one around to help me get started					
14	I am worry that other students will notice me when I make a mistake					
15	I hesitate to apply for a job requires some computer skills because I am a afraid of destroying a large amount of information					
16	I could not be calm as others appear when they sit front of the computer					
17	I feel so tired at the end of my working on the computer.					

18	I feel that my mind goes blank at the beginning of using computer					
19	I do not feel comfortable with computers					
20	If my future job requires some computer skills, I will be always working under pressure					
21	I get upset when teacher asks me to use computer					
22	I hesitate to apply for a job requires some computer skills					
23	Using new computer skills frights me					
24	I do not like to become totally dependent upon computer.					
25	I hesitate to apply for a job requires some computer skills because I am a afraid of making mistakes that I cannot correct					
26	I do my best to avoid using computers whenever possible					
27	I am worry that I will spend most of my time working on computer on my future job					
28	I wish that computers were not as important as they are now in our life					
29	I do not like to continue working with computers in the future job					
30	I like to be away from using computer because it makes me feel tense					
	Total					

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