Computer Technology Awareness by Elementary School Teachers: A Case Study from Turkey

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Executive Summary

In this study, teachers' perspectives, their awareness level of specific technologies and the roles this technology plays in education are researched. Technical problems that inhibited the use of computers in their schools are also identified. Data was elicited from a sample of 252 teachers who were working in basic education schools in Trabzon, Turkey.

The results revealed that many teachers were not computer users. Many teachers lacked a functional computer literacy foundation upon which to build new technology and skills. Analysis of teachers' knowledge of computer technologies revealed low levels of technical knowledge, as well as some interesting perceptions of the role of some specific computer-related items. For most teachers, the use of computers and related technologies had not been a routine part of their own educational environment.

This study showed that gender, years of teaching, and school status have a significant relationship to familiarity with computer technologies in Turkey. Lack of hardware, lack of knowledge and skills about using computers, lack of training or insufficient training opportunities, and crowded classrooms were determined as the most important problems that basic education schools face in Turkey. Data suggest that elementary school teachers in Turkey need to be increasingly encouraged to explore the emerging technologies for teaching. The results of this study can be used in the educational systems of newly developing countries to overcome the difficulties mentioned in Turkey's case.

Keywords: Elementary education; Improving classroom teaching; Technology training; Teacher education.

Introduction

The use of computers in education opens a new area of knowledge and offers a tool that has the potential to change some of the existing educational methods. The teacher is the key to the effective exploitation of this resource in the educational system. As computer use continues to increase in society, educators must also prepare for the use of computers within the classroom. This involves all levels of education, including elementary schools (McCannon & Crews, 2000). The role of the elementary school teacher is evolving from that of a giver of information to that of a facilitator of student learning. New technologies already exist to help teachers complete that evolution (Downs, Clark & Bennett, 1995).

Beginning in 1982, the Turkish Government introduced a series of funding initiatives to promote the use of information technology in schools. Applying information technology to effective learning and teaching is the key point in the current Turkish education policy. Positive teacher atti-

tudes toward computers and computing skills are recognized by researchers as a necessary component for effective use of computer technology in the classroom. Hizal (1989) indicated that the process of planning for technology use should consider the teacher's beliefs and knowledge about technology. This affects the decisions they make about strategies, procedures and materials for instruction. Kulahci and Gurol (1991) compared teachers in a computer course with a control group of teachers who had not and found that teachers who had taken the computer course had lower anxiety scores and higher self perceived ability than those who had not. Akkoyunlu (1996) reported that increased computer experience diminishes computer anxiety. Confidence with computers can be attributed to familiarity and computer knowledge. Lack of computer knowledge results in high anxiety and negative attitudes. It has been shown that attitudes toward computing can be improved significantly with training.

In research about the perceptions of instructional materials, classroom teachers generally demonstrated little knowledge of the technologies (Odabasi & Namlu, 1997). According to a study conducted by Orhun (2000) at secondary schools in Izmir, Turkey, the extent of the implementation of Information Technology innovation in secondary schools in Izmir was rather limited three years after its initiation. The majority of computer use was in actual computer classes, and this mostly took place in vocational schools. Teachers' lack of knowledge and skill about using computers for instructional purposes was the problem encountered the most in implementing computer use in teaching. Lack of software, insufficient training opportunities, insufficient expertise, guidance and help for instructional use, insufficient technical assistance, and insufficient number of computers available were other important problems. Askar and Umay (2001) investigated the computer self-efficiency of freshman, sophomores and juniors in the division of Elementary Mathematics Teaching, and their results showed that the perceived computer self-efficiency was low in relation to access and computer experience. Cagiltay, Cakiroglu and others (2001) examined how the teachers use computers in education - if any- and how they perceive the use of computers in education in Turkey. Their results indicated that most of the subjects held the view that the use of computer technology in schools is beneficial for the teaching-learning process. Recently conducted studies by the present author also address some of the issues related to computer education in Turkey (Asan, 2002, 2003).

Computer technology has become a fundamental part of education in Turkey and will likely be more so in the future. Unfortunately, Information Technology innovation initiatives in Turkey are still characterized by a lack of research into possible options for policies and strategies. There is also a noted lack in studies of the impact of the actions that are taken. As there has been no evaluation, very little is known about the extent of use of computers in teaching and learning, the factors affecting the use of computers, or the effectiveness of the in-service programs.

It is very important to examine school teachers' perceptions since research studies have found that teacher perceptions of computer and technology are closely related to their computer knowledge and computer use. A key concern of this study was to assess the computer use in Trabzon elementary schools and to determine the amount of elementary school teachers' awareness of the technological revolution. New data is presented that reveals the perspectives and awareness levels of teachers about specific technologies, the role of technology in education, and how they see the technological problems that that basic education school system faces.

Research Questions

* What is the current situation at basic education schools in Trabzon, Turkey concerning the following: the availability of computers, the percentage of computer literate teachers and the level of computer interest of teachers?

* What hardware and software innovations in computer technology would be considered most essential by these teachers for teaching and learning in the 21st century classroom?

* What are these teachers' thoughts on the value or role of their choices for teachers and students in the 21st century classroom?

* Do variables such as gender, majoring area, years of teaching, and school status differences effect these teachers' familiarity with computer technologies?

* What are these teachers' views about the educational computing problems that their basic education school system is faced with?

Methodology

Participants

The participants were 252 teachers hired by 25 basic education schools in Trabzon, Turkey. The schools were randomly selected from the 51 urban schools that make up the school system. The background characteristics of the participants are represented in Table 1.

The Survey Instrument

The survey instrument (see Appendix A) was developed by the researcher and pilot-tested by a group of teachers. After revisions to the instrument based on the pilot-test results, 400 instruments were distributed to randomly-selected teachers. 252 usable instruments were returned for a response rate of 63%. The survey was administered at the end of the second semester of the 2001-2002 school year.

Variables		N	%
Gender	Male	143	56.7
	Female	109	43.3
Position	Classroom Teacher	143	58.1
	Major Teacher	93	37.8
	Administration	5	2.0
	Other	5	2.0
Teaching Experience	1-5	40	15.9
	6-15	42	16.7
	16-25	139	55.4
	26-above	30	12.0
School Type	Computer Experimental School (CES)	60	23.8
	Traditional	192	76.2

Table 1: Demographic information of respondents

The survey consisted of three parts. The first part included seventeen questions and focused on the demographic information about teachers, including some descriptions of computer availability in their schools, their computer usage and their level of computer interest. The second part focused on what participant teachers deemed essential for classroom teaching in the 21st century. In this part, a list of computer devices was introduced to teachers. Teachers were asked to examine the list and answer the following questions:

* What hardware innovations in computer technology would be considered essential for teaching and learning in the 21st century?

* Describe the value or role of each device for teachers and students in a 21st century classroom.

* What are the main issues of technology used in your school?

In the third part of the survey, subjects were asked to mark each device on the list as familiar or not familiar. Items presented were: Hard disk, RAM, CD-ROM, CD, DVD, Disk Drive, Floppy Disk, Keyboard, Mouse, Monitor, Printer, Scanner, Sound Card, TV Card, Radio Card, Microphone, Speaker, Digital Camera, PC compatible Video Camera, Multimedia, Joystick, Sensitive Screen, Optical Scanner, Data show, PC compatible Overhead projection, PC compatible Fax, Modem, and Web Cam.

Responses were tabulated and compared, and a descriptive analysis was generated to detail the nature of knowledge levels and perceptions of effectiveness of computer technologies. SPSS software was used to analyze the data of this study.

Results

Demographic information of the respondents is presented in Table 1. As is seen from Table 1, 57% of the respondents were male and 43% were female. The highest percentage of the respondents (58.1%) were classroom teachers. Thirty-eight percent of respondents were teachers in several majoring areas, such as Turkish and Language Art 10%, Science 7%, Math 5%, Social Science 4%, Counseling 4%, Art 2%, Early Childhood 2%, English 2%, Music 1%, and other 1%. Two percent of respondents were administrators. Teaching experience of respondents was: 1-5 years 16%, 6-15 years 17%, 16-25 years 55%, and 26-above years 12%. As shown in Table 1, the majority of teachers had 16-25 years of teaching experience. Twenty-four percent of participants were teachers in Computer Experimental School (CES), which had its own programs for information technology innovations. and has at least one computer laboratory for students. 76% of participants were teachers in traditional schools.

Results of Self Report of Respondents on Computer Availability, Computer Usage and Computer Interest

As is seen from Table 2, 82% of the respondents have computers in their schools, but 58% of them reported that their school computers were not sufficient. Only 39% of respondents were computer users, while 60% of respondents reported that they were not computer users.

Ten percent of computer literate teachers found themselves effective computer users, whereas 90% of them admitted they were not. Only 25% of computer users reported that they were Internet users. Six percent of respondents indicated that they read computer and Internet magazines, 24% visit computer stores and sixteen percent attend seminars or other events. These results suggest that supplying computers to the schools doesn't give us computer literate teachers. In addition to computers, teachers need continued in-service training .

Questions	n	Yes		No	
		n	%	n	%
Does your school have computers?	252	206	81.7	46	18.3
Does your school have sufficient computer resources?	196	82	41.8	114	58.2
Are you a computer user?	252	99	39.3	153	60.7
Are you an effective computer user?	98	10	10.9	88	89.8
Are you an Internet user?	97	24	24.7	73	75.3
Do you read computer and Internet magazines?	230	14	5.6	216	85.7
Do you visit computer stores and exhibitions?	238	60	23.8	178	70.6
Do you attend seminars or other events related to computers?	239	41	16.3	198	78.6

Table 2: Computer Availability, Computer Use and Computer Interest of Respondents

What Teachers Considered Essential for Teaching and Learning in the 21st Century

Respondents were asked to examine the list in the survey instrument and select one item that they consider most essential for teaching and learning in the 21st century classroom and describe the value of each item that they selected for teaching and learning. The list contained 25 items. Items included miscellaneous hardware from keyboard to fax-modems. 182 teachers participated in this part of study. 70 teachers had no idea and described nothing. The results are presented in Table 3.

Data in this study revealed that overhead projection, printer, keyboard, modem, hard disk, and Video Camera received the highest ranking (5% and above) as essential items for teaching and learning in the 21st century, while CD, scanner, sound card, and TV card were the lowest ranked (1% and below) items from the list. The most frequently selected items are presented in Table 4.

Items	Choice	
	f	**%**
Hard disk	17	9.4
RAM	11	6.1
CD-ROM	11	6.1
CD (compact disk)	1	0.6
DVD	3	1.7
Disk Drive	5	2.8
Floppy Disk	3	1.7
Keyboard	13	7.2
Mouse	4	2.2
Monitor	8	4.4
Printer	20	11
Scanner	1	0.6
Sound Card	1	0.6
TV/Radio Card	1	0.6
Microphone/Speaker	-	-
Digital Camera	-	-
PC Compatible Video Camera	10	5.5
Joystick	-	-
Optical Scanner	4	2.2
Datashow	8	4.4
PC Compatible Overhead projection	30	16
PC Compatible Fax	-	-
Modem	1	0.6
Ethernet Card	6	3.3
WebCam	-	-

Table 3: Hardware considered essential for teaching and learning in the 21st century classrooms

Items	Choice	
	f	**%**
PC Compatible Overhead Projection	30	16.6
Printer	20	11
Keyboard	13	7.2
Internet	6	3.3
Hard disk	17	9.4
PC Compatible Video Camera	10	5.5

Table 4: The top hardware choices considered the most essential for teaching and learning in the 21st century classroom

Teachers' Descriptions about Value of their Choices for Teaching and Learning

Most selected items and descriptions are as follows:

Overhead Projector was ranked as the most essential item for teaching and learning by sixteen percent of respondents. Teachers' descriptions about overhead projectors related their advantages in teaching and learning. Teachers considered them as "*much simpler to use*" and "*efficient to get students' attention*". Unfortunately, they did not describe overhead projectors as peripheral computer devices.

Printer was ranked as the second most essential item for teaching and learning by eight percent of respondents. Teachers' descriptions revealed that printers are seen as something more sophisticated than a typewriter. Describing printers as a "*machine for printing out lesson notes and test questions*" shows that teachers perceived printers as useful tools that teachers can use both before or after lessons. The lack of any description of using a printer during the lesson suggests that teachers did not perceive printers as tools that students can use during lessons.

Keyboard was perceived as a "*tool for writing*" and "*important piece that makes computers work*". When we consider the list from this perspective, there are so many hardware and software items that computers cannot work without. Selecting the keyboard as the third most essential item for teaching and learning among 25 items indicates that teachers are not familiar enough with computer technology.

Modem has been perceived as a "*tool for accessing information*" and "*tool to gather data for students and teachers*". Descriptions about the value of modems for teaching and learning indicate that respondent teachers were aware of the Internet and its advantages for the school environment. Data from this study revealed that the number of respondents who used the Internet was very low, but the knowledge level of modems and their role in education seemed very high. This could be an effect of commercials related to the Internet on TV.

Hard Disk was perceived as a "*fundamental component of computer system*" and "*tool for saving and storing information*". Fast hard disks were described by respondents as interesting and efficient.

Video Camera was considered useful for teachers. The value of Video Cameras for teaching and learning was expressed by using broad terms. Descriptions were not about functions of PC compatible-video cameras.

Teachers' Familiarity with Computer Technologies

In the third part of the survey, respondents reported their familiarity with different types of computer technologies. A series of chi-square tests were conducted to determine whether there were significant differences in teachers' familiarity with computer technologies. Results are presented in Table 5.

The group as a whole seemed generally unfamiliar with computer technologies. The frequency distributions showed that 67 % of total teachers were not familiar with computer technologies, while thirty-three (33 %) percent of teachers were familiar.

In this study, significant differences were found to exist between males and females in their familiarity with some types of computer technologies. More male teachers than female teachers were familiar with Keyboard, Mouse, Monitor, Sound Card, Microphone/Speaker, and Digital Camera. A possible explanation for this is that most people in Turkey view computer and related technologies as male domains.

The results of the chi-square analysis for positions of teachers (classroom versus major teachers) reveal that the teachers did not significantly differ in their familiarity with computer technologies.

The amount of teaching experience appeared to have an effect on teachers' familiarity with computer technologies. Teachers that had 16-25 years teaching experience were less familiar with Hard disk, CD-

ITEMS	Familiar		Unfamiliar		Gender	Position	T. Expr.	Sch. St.
	n	%	n	%	X^2 (df=1)	X^2(df=3)	X^2(df=3)	X^2(df=1)
Hard Disk	111	44,05	141	55,95	1,65	3,61	12,86**	24,37**
RAM	100	39,68	152	60,32	1,86	0,84	5,70	23,96**
CD-ROM	100	39,68	152	60,32	2,64	2,28	12,92**	27,01**
CD (compact disk)	97	38,49	155	61,51	0,60	7,62*	20,52**	29,62**
DVD	66	26,19	186	73,81	0,20	0,99	11,84**	11,97**
Disk Drive	110	43,65	142	56,35	2,05	4,06	11,88**	38,51**
Floppy Disk	132	52,38	120	47,62	3,26	5,67	14,55**	27,08**
Keyboard	143	56,75	109	43,25	4,06*	5,97	19,78**	28,72**
Mouse	135	53,57	117	46,43	4,58*	4,35	14,35**	28,04**
Monitor	139	55,16	113	44,84	5,44*	7,56	22,10**	25,27**
Printer	124	49,21	128	50,79	7,32**	4,13	15,29**	20,96**
Scanner	82	32,54	170	67,46	1,47	1,66	11,46**	20,88**
Sound Card	58	23,02	194	76,98	7,53**	1,57	1,41	10,43**
TV /Radio Card	60	23,81	192	76,19	1,39	1,59	7,31	7,18**
Microphone/Speaker	82	32,54	170	67,46	8,07**	2,82	4,79	23,87**
Digital Camera	43	17,06	209	82,94	8,45**	3,12	5,07	17,90**
Video Camera / PC Compatible	58	23,02	194	76,98	0,40	4,10	5,84	12,82**
Joystick	50	19,84	202	80,16	0,57	1,25	19,75**	14,02**
Optical Scanner	56	22,22	196	77,78	0,72	2,91	16,80**	4,06**
Datashow	44	17,46	208	82,54	0,46	6,74	12,10**	41,44**
OverheadProjection/PCCompatible with PC	80	31,75	172	68,25	0,51	2,09	5,20	16,94**
Fax / PC Compatible	60	23,81	192	76,19	0,00	1,12	11,21**	11,38**
Modem	50	19,84	202	80,16	0,27	1,79	5,97	14,02**
Ethernet Card	85	33,73	167	66,27	0,55	2,11	8,97*	7,51**
WebCam	16	6,35	236	93,65	0,00	5,28	10,28*	0,24

Table 5: Teachers' Awareness of Computer Technology (* p<0.05. ** p<0.01)

ROM, CD, DVD, Disk Drive, Floppy Disk, Keyboard, Mouse, Monitor, Printer, Scanner, Sound Card, TV Card, Microphone, Speaker, Digital Camera, PC compatible Video Camera, Joystick, Optical Scanner, PC compatible Overhead projection, PC compatible Fax, Modem. This is not surprise to us because they were older and less experienced with computers than younger generation teachers.

The results of the chi-square analysis for school status reveal that the two groups differed significantly in their familiarity with all types of technologies. Teachers who work in CES Schools were more familiar with computer technologies than traditional school teachers.

Educational Computing Problems Facing Basic Education School Systems

Participant teachers reported a variety of technological problems facing their school systems. The results are tabulated in Table 6. The most commonly cited problem (60%) was lack of hardware in basic education schools. Teachers pointed out that the main issues were insufficient resources for teachers to keep current with the emerging technologies and limited or inappropriate hardware due to luck of funding for upgrade and maintenance. The second most commonly cited problem (46%) was related to organizational factors like scheduling, lack of time, and class size. Teachers expressed scheduling difficulties and mentioned that

Problems	n	%
Lack of Hardware	110	60
Organizational Factors	84	46
Computer Literacy	39	21
Training	38	20

Table 6: Educational computing problems that basic education school systems face (n=182)

their self-development activities were limited due to poor computer access during release times. They also pointed out that scheduling limitations restrain computer use by both students and teachers, and reduce feasibility of training within school hours by the computer teacher. Easy access to computer resources for teachers was emphasized as desirable. Many teachers have indicated frustration with their computer skills and feel constricted by the lack of available time during school hours to develop computer skills. Class size was also mentioned as a problem. According to teachers, large class sizes make it difficult for teachers to find sufficient time for computer use. The low level of teacher computer literacy was also one of the problems pointed out by participant teachers. They indicated that computer literacy is knowledge about the proper use of computers, and therefore they are not computer literate.

Teachers reported that lack of teacher training is also one of the problems that face basic education schools. This problem is partly because many currently working teachers received their teaching certificates prior to the time when computer education was not available to them. Teachers felt a need for computer training, which most of them did not get. Some of them mentioned that there is no extra financial support for computer literate teachers from the ministry.

Discussion and Recommendations

This study, based on a survey of school teachers in Trabzon, Turkey, examined teacher's perceptions and awareness level about specific technologies, and about the role of technology in education, and how they see the technological problems that are faced by basic education school systems in Turkey.

It is clear from the results that, of the 252 respondents, 99 (39.3%) indicated that they could use computers but they did not feel they were proficient. These results reveal that many teachers are not computer users and the computer literacy level of teachers is very low.

Of the 252 respondents, 5.6% indicated that they read computer and Internet magazines, 20.6% visit computer stores and 16.3% attend seminars or other events. These findings demonstrate that funding and access to proper training prevents teachers from upgrading their skills. The educational policy-makers of Turkey need to allocate more funds for training for in-service teachers.

Overhead projector, printer, keyboard, modem, hard disk, and video camera were ranked as the most essential items for teaching and learning at basic education schools. CD (compact disk), digital camera, monitor, WebCam were least ranked as the most essential items or not ranked at all. Teachers' most ranked items were mainly well-known items and could be classified as peripheral devices.

As mentioned above from the findings of this study, teachers in basic educational schools in Turkey have a lack of fundamental concepts, knowledge and skills for applying technology in educational settings. When educational technology standards for teachers in developed countries is considered, it be-

comes necessary to start working hard on the planning and implementation of computer education in Turkey.

This study found that positions of teachers (classroom versus major teachers) have no significant relationship in familiarity with computer technologies. This study showed that gender, amount of teaching experience, and school status has a significant relationship in familiarity with some types of computer technologies.

Problems such as lack of hardware, lack of knowledge and skills about using computers, lack of training or insufficient training opportunities, and crowded classrooms were determined as the most important problems that basic education schools face in Turkey. Lack of finances and lack of proficiency would seem to be two logical barriers to frequent use of the technologies.

These findings indicate that there are three basic needs. One is a need for purchasing sufficient hardware and software for basic education schools. Computers and computer-related technologies should be a part of classroom teaching activities in Turkey. Besides placing one computer laboratory in each school, a minimum of two CD-ROM computers in each classroom should be provided. This kind of placement will allow an opportunity for teacher to become familiar with computers and apply computer technology to his/her instruction. The laboratory would also ensure teacher access to computers during school hours.

The second is a need for in-service training in computer technology. Particularly because modern society and information change rapidly, pre-service education is no longer enough for teachers to keep abreast with current trends and maintain a high quality of instruction. The effectiveness of teachers is a determinant to educational quality, and in-service training is important to enhance the effectiveness of teachers. Teachers need to receive training which will build their confidence so that they can become capable of dealing with available technology. They need to have continuous training so that they are up-to-date with the latest technology (e.g., multimedia, authoring, presentation, Web tools, digital cameras and scanners). In-service training sessions should have a major emphasis on preparing participants to immediately make use of their new knowledge and skills.

The third need relates to training teachers to become effective users of the Internet. They need to be able to search the Internet and develop materials for their classes by using the Internet. Teachers need to receive training to use technology tools to design, develop, publish, and present products (e.g., Web pages and videotapes) using technology resources that demonstrate and communicate curriculum concepts to students inside and outside the classroom.

Finally, this study was a first step in determining school teachers' perceptions about specific technologies and about the role of the technology in education, and how they see the technological problems that are faced by basic education school systems in Turkey. Recommendations for future research include:

* Conduct a study to define National Educational Technology Standards for teachers and develop extensive plans to reach those standards.

* Conduct a study using larger geographic areas to compare and contrast Trabzon with other cities.

* Conduct the study using teachers from high schools to compare and contrast their responses with basic education schools.

* Periodically conduct follow-up studies to examine future technology training needs in Turkey.

Acknowledgements

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Biography

Askin Asan is an Assistant Professor in Computer Education and Instructional Technology, Karadeniz Technical University, Trabzon, TURKEY, where she teaches graduate and undergraduate courses in IT. Her research interests include the computer based instruction, instructional material development and teacher training.

Appendix A

(Questionnaire Part 1)

Please tick the appropriate box in each case:

1. Gender: male   female

2. Position: classroom teacher   subject specialist

                                       computer teacher   administrator

                                       other, please specify ……………………………..

3. Subject specialization area: ………………………………………………….

4. Length of the time in the profession: ………………………………………………….

5. School status: public   private

6. School type: computer experimental school   ordinary

7. Does your school have computers?   yes   no

8. Does your school have sufficient computer resources?   yes   no

9. Do you read computer and Internet magazines?   yes   no

10. Do you visit computer stores and exhibitions?   yes   no

11. Do you attend seminars or other events related to computers?   yes   no

12. Are you a computer user?   yes   no

13. Do you enjoy using the computer?   yes   no

14. Do you think that you are computer literate?   yes   no

15. Do you own a computer?   yes   no

16. Are you an Internet user?   yes   no

17. Do you have access to the Internet?   yes   no

(Questionnaire Part 2)

Please examine the list and answer the following questions:

* What hardware innovations in computer technology would be considered essential for teaching and learning in the 21st century? (Please select three items that you consider most essential.)

* Describe the value or role of each device for teachers and students in a 21st century classroom?

* What are the main issues of technology used in your school?

Items

Hard disk
RAM
CD-ROM
CD (compact disk)
DVD
Disk Drive
Floppy Disk
Keyboard
Mouse
Monitor
Printer
Scanner
Sound Card
TV/Radio Card
Microphone/Speaker
Digital Camera
Video Camera / PC Compatible
Joystick
Optical Scanner
Datashow
Overhead projection / PC Compatible
Fax / PC Compatible
Modem
Ethernet Card
WebCam

(Questionnaire Part 3)

Please mark each item on the list as familiar or unfamiliar.

Items	Familiar	Unfamiliar
Hard disk		
RAM		
CD-ROM		
CD (compact disk)		
DVD		
Disk Drive		
Floppy Disk		
Keyboard		
Mouse		
Monitor		
Printer		
Scanner		
Sound Card		
TV/Radio Card		
Microphone/Speaker		
Digital Camera		
Video Camera / PC Compatible		
Joystick		
Optical Scanner		
Datashow		
Overhead projection / PC Compatible		
Fax / PC Compatible		
Modem		
Ethernet Card		
WebCam		