USE OF EDUCATION TECHNOLOGY IN ENGLISH CLASSES

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Abstract

Using education technology in classes helps teachers realize a better and more effective learning. In this study 150 English teachers were surveyed in order to determine their views on the use of education technology in their classes. The scale consists of 36 items measuring positive and negative attitudes of English teachers toward use of technology. There are 24 positive, 12 negative items in the scale. The teachers were also asked which technological aids and techniques they use. It was determined that teachers have positive attitudes toward use of technology but they do not obtain or use technology at desired level.

Introduction

In recent years much attention has been focused on the use of technology in classes. "Identifying the value of technology in schools has challenged educational researchers for more than 20 years. Part of the problem is our evolving understanding of how technology accentuates student learning. Rapid changes in the technology itself also hamper research. Finally, the intertwining of complex variables in such a rich environment as a school precludes the pure isolation necessary to determine cause and effect" (Baylor and Ritchie, 2002).

Rapid changes in technology have affected teaching-learning process deeply. The aim of improving educational quality invites the question of to extent to which new technology aids this process. It is known that traditional formats are not always successful and efficient (Milliken and Barnes, 2002). New technologies offer opportunities for taking account of individual aptitude and interest. Recent studies in the area indicate that effective use of education technology can help education system work better and more effectively (Jonassen and Reeves, 1996; Means, 1994). In a survey administered by Halderman (1992) a majority of teachers demand using technology better. Use of technology in the classes gives students the chance of learning faster and more permanent. In another survey administered by Tsou, Wang and Li (2002) a significant increase was statistically found in the test scores of students in a computer aided learning environment. This shows the positive effect of technology for realizing effective learning.

The attitudes of teachers are important factors influencing use of education technology in classes. Some researches show that teachers do not have positive attitudes toward computers and moreover they have fear against computer use in the classroom (Hardy, 1998; Papryzcki and Vidakovic, 1994).

Method

The aim of the study is to determine the attitudes and opinions of English teachers towards using education technology in their classes. The sample of this study consists of 150 English teachers working at 63 Elementary schools in Elazıg city center. There are totally 150 English teachers in these schools. There are two groups of English teachers. The first group consists of 47 teachers who have graduated from English language teaching departments. The other group consists of 103 teachers who have graduated from other subject areas. Majority of the subjects were those who have not graduated from English language teaching departments. The sample covers only English teachers working at Elementary schools. The scale was handed all the teachers in the sample in their schools and was collected in the same way.

Data Collection

In order to assess teachers' needs and portray their views towards use of education technology in English classes, an attitude scale was used as the main tool of the study. A 36 item, 5-point Likert-scale ranging from strongly agree, through agree, partly agree, and disagree to strongly agree was constructed by the researcher. The scale asked the teachers to describe their attitudes towards use of education technology and how much experience they had of using education technology. The design of the items had been piloted on another teacher group before. KMO (Kayser-Meyer-Olkin Measure of sampling adequacy) was found as 0.70. Cronbach alpha reliability value of the scale was found as .85. Bartlett's test of sphericity was found as 1612,172. A statistically significant difference was found at the level of $p < 0.05$.

The scale focused on the difficulty, usefulness, effort, support, interest, effectiveness and acceptance toward education technology. The scale included Likert-type items about different aspects of use of education technology, including previous experience and future intentions of the subjects. The data were analyzed by the

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SPSS statistical package, using the mean scores, independent groups t test and reliability and factor analyses. There are totally 24 positive, 12 negative items in the scale.

Assumptions
It is assumed that:
1. All subjects answered the surveys honestly.
2. The sample represents English teachers working at Elementary schools in Elazıg city, Turkey.
3. The subjects are able to understand English to interpret the attitude scale.

Limitations
1.All subjects in the study were the English teachers from Elementary schools in Elazıg city, Turkey.
2. The subject, selected by the researcher, focused on the areas perceived as significant to the study.
3. The Attitude Scale was only analyzed for teachers working in Elementary schools.

Findings and Interpretation

Table 1 presents the name of sub-scales, and Cronbach alpha reliability values of each sub-scale.

Table 1: Scale Names, Number of Items and Reliability Values

Scale Names	Item No	Cronbach-Value
Difficulty	1* – 7* – 17 – 21* - 31*	.79
Usefulness	2 – 6 – 10 – 18 – 23* – 30*	.73
Effort	4 – 8 – 11 – 34* – 36	.71
Support	3* – 9 – 22 – 26 – 28 – 32	.79
Interest	5 – 13* – 15* – 20 – 24 – 29	.81
Effectiveness	16* – 19 – 25 – 27	.75
Acceptance	12 – 14 – 33 – 35*	.70

* negative items

The scale consists of seven subscales. They are difficulty, usefulness, effort, support, interest, effectiveness and acceptance subscales respectively. Cronbach-alpha of each subscale was found .79, .73, .71, .79, .81, .75, .70.

The teachers who have graduated from English language teaching programs are mentioned here as Group 1, the others who teach English at elementary schools are called as Group 2 in the study.

Views on the Use of Education Technology

Teachers' views on difficulty subscale are presented in Table 2.

Table 2: Views on Difficulty The Teachers Face in Using and Providing Technology

Item No	Item	Group1 (n: 47)		Group2 (n: 103)		t	P
		$\overline{X}$	ss	$\overline{X}$	ss		
1	It is difficult to learn how to use a new technology in the classroom.	4.17	1.049	2.56	1.281	7.523	0.000*
7	It is not easy to use education technology.	3.98	1.406	2.92	1.576	3.934	0.000*
17	I can easily get necessary equipment whenever I need.	1.85	0.625	1.60	0.662	2.175	0.031*
21	School's budget is inadequate for buying necessary materials.	1.38	0.491	1.37	0.485	0.164	0.870
31	A person has to do a difficult training course to understand how to use technology in class.	2.02	1.132	1.72	1.033	1.616	0.108

Negative items were reversed in order to maintain a homogenous score
*p < 0.05   df: 148

The teachers in group one scored significantly higher on attitudes towards difficulty scale than those in group two (p< 0.05). The largest differences were on learning how to use a new technology in the classroom, using education technology and getting necessary equipment for the classroom. The teachers who graduated from English teaching departments feel less difficulty in using education technology than the teachers graduated from other subject areas.

Table 3: Views on the Usefulness of Education Technology

Item No	Item	Group1 (n: 47)		Group2 (n: 103)		t	P
		$\overline{X}$	ss	$\overline{X}$	ss		
2	Students participates actively when I use technological aids	4.74	0.441	4.67	0.584	0.782	0.436
6	In my opinion education technology enriches learning environment	4.68	0.629	4.66	0.587	0.196	0.845
10	There is a relation between success and use of technology.	4.30	0.883	4.20	0.943	0.577	0.565
18	Using education technology makes learning more interesting.	4.62	0.491	4.50	0.778	0.908	0.365
23	Technology makes learning boring for students.	3.85	1.560	2.92	1.813	3.035	0.003*
30	Using education technology is a waste of time.	3.49	1.768	2.03	1.317	5.636	0.000*

Negative items were reversed in order to maintain a homogenous score
*p < 0.05   df: 148

The t test results in Table 3 indicate that all teachers viewed attitudes toward usefulness scale as being positive. The English teachers in both groups think that education technology is useful in teaching English. No statistically significant differences were found between the two groups in all items shown in Table 3. This suggests that the teachers are agreeing on of the advantages of education technology. These results show that teachers are aware of the importance of education technology. The findings also indicate that the teachers in both groups do not think use of education technology as a waste of time. They find a relation between success and use of technology in the classes.

A statistically significant difference was found in item 23. The teachers in group one think more positively than the teachers in group two toward the attitude mentioned in item 23.

Teachers' views on the efforts subscale are presented in Table 4.

Table 4: Views on the Efforts of English Teachers to Use Education Technology

Item No	Item	Group1 (n: 47)		Group2 (n: 103)		t	P
		$\overline{X}$	ss	$\overline{X}$	ss		
4	I try to bring technological aids into the classroom.	3.55	0.802	3.22	1.212	1.702	0.091
8	I always try to persuade my colleagues to use new technologies in the classroom.	3.00	1.123	2.69	1.048	1.647	0.102
11	I am very willing to provide technological aids.	2.91	0.686	2.61	1.285	1.520	0.131
34	A student can learn a language easily without education technology.	4.70	0.720	3.53	1.809	4.270	0.000*
36	I always try to discover new ways for effective teaching.	3.44	1.265	3.24	1.216	0.941	0.348

Negative items were reversed in order to maintain a homogenous score
*p < 0.05   df: 148

The findings in Table 4 indicate that teachers in both groups have positive attitudes toward effort scale. But only in item 34, a significant difference has been found. The teachers in Group 1 have a bit more positive attitudes than the teachers in Group 2 toward item 34.

Table 5: Views on the Support the Teachers can Get Education Technology

Item No	Item	Group1 (n: 47)		Group2 (n: 103)		t	P
		$\overline{X}$	ss	$\overline{X}$	ss		
3	My school does not support me when I demand new equipment.	1.830	1.028	1.738	0.960	0.532	0.595
9	I share my experiences with my colleagues.	4.49	0.719	4.46	0.751	0.253	0.800
22	Other teachers at my school always support me to provide necessary equipment.	4.57	0.683	4.45	0.849	0.907	0.366
26	In-service activities have helped me and developed my skills in using education technology.	2.21	1.062	2.15	1.014	0.371	0.711
28	Education technology is available easily at my school.	1.89	0.814	1.74	0.883	0.963	0.337
32	I can get enough support easily in finding necessary equipment	1.68	0.810	1.63	0.852	0.337	0.737

Negative items were reversed in order to maintain a homogenous score
*p < 0.05   df: 148

Table 5 allows us to see how English teachers evaluate the support they expect from their schools and colleagues. The great majority of teachers stress that their school neither support them when they demand new equipment nor technological equipment can easily be obtained.

Differences between the views of teachers' interests on education technology are given in Table 6 below.

Table 6: Views on the Interest of the Teachers on Education Technology

Item No	Item	Group1 (n: 47)		Group2 (n: 103)		t	P
		$\overline{X}$	ss	$\overline{X}$	ss		
5	I would like to learn more about new developments in education technology	3.70	1.159	3.40	1.231	1.428	0.155
13	I am not interested in using education technology in the classroom.	2.72	1.873	2.15	1.324	2.165	0.032*
15	I don't have enough knowledge for using technological aids.	3.02	1.406	1.51	0.765	8.482	0.000*
20	Using education technology in teaching English would be interesting.	4.57	0.651	4.18	1.017	2.411	0.017*
24	Students pay more attention when I use technology in the classroom.	4.77	0.428	4.76	0.494	0.104	0.917
29	I follow new developments in education technology properly.	1.62	1.171	1.47	0.906	0.862	0.390

Negative items were reversed in order to maintain a homogenous score
*p < 0.05   df: 148

The results indicate statistically significant differences in having interest to use technological aids between the two groups. The results also show significant differences in having enough knowledge for using technology and in thinking use of technology interesting. The teachers who graduated from English language teaching departments have more positive attitudes from the point of having interest than those graduated from other subject areas. But the results are the same in the views on following new developments in education technology. The teachers in both groups do not have interest to follow new developments in education technology properly.

Differences between teachers' views on the benefits of the use of education technology in English classes are given in Table 7.

Table 7: Views on the Benefits of Education Technology

Item No	Item	Group1 (n: 47)		Group2 (n: 103)		t	P
		$\overline{X}$	ss	$\overline{X}$	ss		
16	I think using technology in class has little effect on students' learning.	4.87	0.494	4.63	0.792	1.923	0.056

19	My students learn better when I use technology in the classroom.	4.47	0.718	4.39	0.952	0.511	0.610
25	Using education technology has an important place in learning English.	4.70	0.587	4.53	0.669	1.482	0.140
27	Technology has a large influence on students' motivation.	4.64	0.568	4.28	0.914	1.459	0.147

Negative items were reversed in order to maintain a homogenous score
*p < 0.05   df: 148

As can be seen from Table 7 the teachers in both groups agree on the benefits of technology use in their classes. No statistically significant differences were found between the groups. The teachers express that their students learn better when they use technology and they also accept the importance of technology.

Table 8: Views on the Acceptance of Education Technology

Item No	Item	Group1 (n: 47)		Group2 (n: 103)		t	P
		$\overline{X}$	ss	$\overline{X}$	ss		
12	I accept the importance of education technology in teaching English.	4.32	0.810	4.14	1.020	1.085	0.280
14	My students accept the importance of technology in language classes.	4.66	0.731	4.55	0.764	0.801	0.425
33	My colleagues share my opinions on the use of education technology.	4.43	0.853	4.34	1.025	0.500	0.618
35*	My students find use of technology boring.	4.51	0.857	4.24	1.339	1.258	0.210

Negative items were reversed in order to maintain a homogenous score
*p < 0.05   df: 148

The t test results indication no significant differences can be seen in Table 8 above. The teachers in both groups commonly accept the importance and role of the technology. Results also show that the teachers think that their students accept the importance of use of technology. These findings imply that the groups accept the importance of technology. It can also be drawn that the teachers try to share their opinions on the use of technology.

The views of English teachers on the frequency of use of education technology in their classes are given in Table 9.

Table 9: Use of Technology in English Classes (n: 150)

Technology used	Never		Rarely		Sometimes		Often		Always	
	f	%	f	%	f	%	f	%	f	%
Overhead Projector	65	43.4	36	24	17	11.3	26	17.3	6	4
Tape-Recorder	37	24.7	23	15.3	43	28.7	39	26	8	5.3
Tv-Video	66	44	44	29.3	13	8.7	21	14	6	4
Slides	25	16.7	47	31.3	35	23.3	27	18	16	10.7
Flashcards	17	11.3	18	12	33	22	69	46	13	8.7
Pictures	9	6	7	4.7	13	8.7	83	55.3	38	25.3
Computer	136	90.7	9	6	5	3.3	-	-	-	-
Board	-	-	-	-	-	-	29	19.3	121	80.7

The results shown in Table 9 indicate that teachers mostly use board. The other technological aids are not used by most of the teachers. The figures dealing with the use of computer show that the teachers do not use computer in their classes.

The findings about the techniques the teachers use in their classes are presented in Table 10.

Table 10: Use of Activities in English Classes (n: 150)

Techniques used	Never		Rarely		Sometimes		Often		Always	
	f	%	f	%	f	%	f	%	f	%

Pair work	17	11.3	26	17.3	32	21.3	65	43.4	10	6.7
Games	23	15.3	28	18.7	43	28.7	39	26	17	11.3
Problem Solving	93	62	30	20	27	18	-	-	-	-
Role-playing	23	15.3	27	18	29	19.3	55	36.7	16	10.7
Group work	16	10.7	36	24	34	22.6	48	32	16	10.7
Authentic Texts	36	24	38	25.3	47	31.4	21	14	8	5.3
Information gap	9	6	17	11.3	23	15.3	85	56.7	16	10.7
Simulation	57	38	33	22	35	23.3	18	12	7	4.7
Drama	27	18	22	24.7	47	31.3	38	25.3	16	10.7

When the figures in Table 10 are investigated carefully, it can easily be seen that the teachers mostly use pair work, role-playing and information gap activities. The other activities are not used by most of the teachers at desired level.

Conclusion

With this current study it was determined that teachers graduated from English language teaching departments feel more positive than those who graduated from other subject areas. The teachers in both groups stress that education technology has an important place in teaching learning process but they are not so willing in using education technology in their classes. The teachers' schools do not have necessary equipment and they do not get enough support from their schools. The teachers mostly use board. Pair work, role playing and information gap activities are most used techniques in the classroom.

Discussion

In general, the results indicate the importance of the use of education technology use, statistically significant differences were observed between the two groups. Teachers in-group one appear to be at a better position in their views on the difficulty of technology use. These results are in line with the study findings that examined views on the difficulty of technology use in the field.

The findings of the present study imply that the teachers think that there is a relation between success and technology use. This is consistent with Halderman's (1992) views. In harmony with the findings of surveys by Hardy (1998) and Popryzcki and Vidakovic (1994), the results of this current study indicated that teachers do not have positive attitudes toward computers.

Teachers are expected to use education in their classes so that they can enrich learning environment. The findings obtained from this study indicate that teachers do not use it effectively although they are open to use it. Finally

In the search for effective use of education technology, scientific researchers must continue to investigate the effect of education technology in order to derive a more scientific basis for technology use, and examine, describe, and compare curricular activities that utilize the education technology, and their variously defined effects.

Suggestions

In the light of the findings of this current study following suggestions are recommended:
- Education technology must be introduced to the teachers working in Elementary schools.
- Schools should be equipped with necessary technological aids.
- Teachers should have courses about the use of education technology and new technological aids should be introduced to the teachers.

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