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STUDENTS' PERCEPTION TOWARDS TYPING VERSUS HANDWRITTEN ESSAYS IN  
WRITING ASSESSMENT

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ABSTRACT

The aim of this paper is to present the case of handwritten and computer-produced writing skill among university students to investigate their perception toward the use of computer-based writing. An online-based survey was sent to 100 students (38 male and 62 female) in preparatory English programs. Results of this study indicated that student's perception towards the use computer-based writing was positive. Moreover, the current research points out the need of further studies taken into consideration to illustrate issues better and challenges with writing skill in computer.

**Keywords:** Handwritten, Computer-produced, Writing, Preparatory English Program

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INTRODUCTION

Writing may be the single best teaching tool because it requires students to engage at the highest level of cognition. In the ESL context, this is particularly important because students have abundant opportunity to practice the second language, especially subconsciously. However, process writing as a method of teaching writing to university students is useful because it considers all the aspects of writing pre-writing (planning, discussion, organization); writing (writing, revising, and feedback), and post-writing (publication). Ultimately, process writing is recommended as a valuable teaching tool because its focus is on teaching students how to write--from the beginning of forming an idea to completing the final manuscript--rather than on merely what to write, or just copying down pre-prepared answers. Moreover, as a result of outstanding development in educational technology, the process of writing assessment also started to show some differences. In this aspect, the focus of this study is to emphasize the possible relationship between computer-produced and handwritten writing assessment.

Nowadays almost all students at higher education do work on technological devices or computers but they are assessed by a single paper-based sit-down examination. An effective assessment is a must for every single subject. In traditional classes, assessment of language skills has been conducted with handwriting items (Hatfield & Gorman, 2000) but with the new integrated educational technology, another method is offered to

students to be evaluated. Although a great number of researchers study the impact of technology in writing skill, it is still a big phenomenon, which requires further studies.

Computers are becoming an applied platform in most of the institutions, and campuses. Thus, students have bigger chances to access computers not only in class but also out of class.

However; the universities, or institutions found themselves in the middle of two different edges whether to apply for electronic format or paper-based to evaluate ESL students' assessment. Assessment is one of the most important key aspects in the process of learning because it gives idea to evaluate the level of students' knowledge (Nikou & Economides , 2013). In addition, Rehmani (2003) clearly points out that the exam itself has an important place in teachers' teaching and students' learning to see how and what student learn in the end of educational periods. For years, many different examination types; presentations, assignments, handwriting assignments, have been used to illustrate students learning process in different ways.

Taking into consideration of the role of instructors in this global age, the use of Internet and technology in assessment scope is a great challenging point to be more beneficial for the courses they teach. The process of composing essay or writing assignment on a computer is quite different than handwriting because handwriting requires author to make a well developed plan about what to write, correct the mistakes, pay attention to spelling but the use of computer word processor makes author's job easier by editing mechanical errors itself and in this way the author may find more time to pay attention to the work.

Karadeniz (2009) conducted a study to show the difference between mobile based and paper based assessments on student's success. In this study, thirty-eight students were experienced for three weeks and in the end of the second week of experiment, the author states that significant differences were found. The students clearly showed positive attitude using web-based assessment. Another study conducted by Koppel and Hollister to see the differences between paper-based or online computer-based assessment on students' achievement. In this study, the students' knowledge about the use of computer also examined and out of 133 students, 91 of them did not have any computer based assessment experience. As a result of this study, big number of students (%59) found the use of computer pretty easy and %76 of the students also stated that CMT (computer-based test) test was more effective than PBT(paper-based test). Moreover, the faculty members also came to conclusion that CMT makes their job much easier to submit and announce the results, a better and easier way to keep the grades for a possible future analysis as well. One important aspect is the huge amount of money spent for paper issues.

For instance, Woolf, Hart, Day, Botch and Wining (2000) conducted a study at University of Massachusetts in which chemistry department students were encouraged to use electronic homework system to work outside of the class as well. The aim was to enlarge system to other departments as well. The results were quite positive to get direct feedback to evaluate their performance. Beside, being familiar to use of computer also plays an important role in students' achievement. Horkay, Bennett, Allen, Kaplan and Yan (2006) found that the students who had IT experience showed %10 more to their scores than handwritten ones.

Several studies show that students who have computer skills get higher grades on computer-based tests than the ones whose computer skill are not equivalent. However, not surprisingly the students who are less skilled in computer showed better performance in paper-test than computer skilled ones (Kyllonen, 2009; Gamire & Pearson, 2006; Education Commission of the States, 2010; Paek, 2005; Csapo, Molnar & Toth, 2009; Bridgeman, 2009;). Kohler (2015) conducted a study with eight intermediate-level ESL students and six ESL teachers as a part of study at Midwestern University. At this university, ESL-program requires students to send their assignments in electronic format. Eight participants trained how to use computers in lab. As a result of study, it was found that the difference between handwriting and computer typing might show a big effect on students writing skills. The researcher also believes that the university administration should go on applying handwriting process unless bigger number of students have enough knowledge how to use computer-based typing.

Belden Russonello and Steward (2007) examined a survey to see the importance of writing in American public. The results showed that most of the people believe the computers and other educational technology devices have big importance on students writing skills development. Moreover, most of the families also mentioned the existence of computers and access Internet both at school and home. %68 and %69 participants respectfully showed that almost every single new technology is seen quite helpful to teach better writing skill to students. In another survey conducted in 1998 and 2002 NAEP writing assessment indicated that most of the eighth grade instructors stated the use of computer in writing. They also reported that the technological devices showed great importance on students' motivation, the time they spend on editing and their total grades.

### **Methodology**

#### **Research Questions**

1. What are the ESL Learners' perceptions on writing essays online?
2. What is the effect of computers on ESL Learners' writing skill achievement?

#### **Research Design**

The aim of quantitative research is to explain a phenomena by collecting numerical data that are analyzed by using statistics (Dörnyei, 2011). This study aimed to find out the effect of computer-produced essay writing on Turkish EFL students' writing achievement, but not to provide a deep understanding of the underlying reasons, opinions, and motivations for computer-based essay writing. Also, it used a scale and the participants' grades to explain their perceptions and the effect of computer-produced writing on their writing achievement. Therefore, the study adopted quantitative research framework. The type of quantitative research used in this study was experimental because there were two groups of the participants: experimental and control groups (Dörnyei, 2011). There was an intervention in the participants' writing learning process in the experimental group (Dörnyei, 2011).

#### **Participants**

There were 200 students in the intermediate level of an English preparatory school in Turkey. Half of the students were chosen for the experimental group while the rest were chosen for the control group randomly because it was important to choose the sampling randomly in experimental research (Dörnyei, 2011). In the experimental group, there were 38 male and 62 female students. In the control group, there were 40 male and 60 female students. The average age of both groups was 19.

In the experimental group, 89 participants had personal computers while 11 participants did not have. Most of them did not use their computers to take notes in their classes while 10 participants always and 28 of them sometimes used them to take notes. Also, 61 of them believed their keyboarding skills were very good while the others believed they were not good at keyboarding.

#### **Data Collection Instruments**

In order to find out the EFL students' perceptions about computer-produced essay writing, the scale developed by Demirci (2007) was adapted by the research in consultation with two experts who had PhD degrees in English language teaching. There were 16 items in the scale, and the scale was formed as a Likert-type scale with five scoring options. They were (1) strongly disagree, (2) disagree, (3) no-opinion, (4) agree, (5) strongly agree. The Cronbach alfa coefficient of this scale was found .861 for this study. In addition, their weekly grades for the participants' weekly grades for their weekly assignments were used in order to find out the effect of computer-based writing on their writing achievements.

#### **Data Collection Procedure**

To carry out the study, a legal permission was taken from the institution. After the permission, the study started and lasted 8 weeks. There were 5 writing instructors. Two of them including the researcher taught writing to the experimental group while the others were the instructors of the control group. The participants in the experimental and control group were asked to write a paragraph each week. The experimental group participants composed their paragraphs on computer and submitted them to their writing instructors through computer. They received their feedback and made their corrections online. In the control

group, the participants completed their paragraphs, received their feedback on paper, and made their corrections on paper. In the last week, the scale was conducted with the experimental group.

### Data Analysis

In order to answer the first research question, descriptive statistics was used. For the second research question, the mean scores of each week writing scores were calculated separately for the experimental and control groups. Also, independent sample t test was used to find out whether there was a statistically significant difference between the writing scores of both group.

### Findings

The 16 items questionnaire has been asked to the experimental group, who previously used handwritten writing system then the computer-produced system is experimented, to check the level of their perceptions regarding to the online writing system.

### The Experimental Group Learners' Perceptions

The highest range of the students in this questionnaire is seen on items 12 and 14 as 4.25 (indicating agreement), and the lowest on items 4 as 1.61 (indicating disagreement). Of the 16 statements, eleven had means between 4.04 and 4.25, five had means between 1.61 and 1.68 (indicating disagreement for the reverse items which tells us the same idea with the agreed items). The percentages and means are presented below in Table 1.

Table 1. EFL Learners' (Experimental Group Students) Perceptions of Online Essay Writing

	Strongly Disagree	Disagree	No-opinion	Agree	Strongly Agree	N	Mean	SD
	%	%	%	%	%			
1. I prefer writing essays online.	0	2	28	32	38	100	4.08	0.82
2. Writing essays online is a modern approach than traditional paper and pencil writing.	0	2	19	36	43	100	4.22	0.77
3. Writing essays online could not be easily controlled*	46	44	8	2	0	100	1.62	0.63
4. Writing essays online has disadvantages for me*	46	45	7	2	0	100	1.61	0.62
5. I spend less time when writing essays online.	0	2	30	32	36	100	4.04	0.83
6. I prefer paper-pencil based writing than online*	44	49	5	2	0	100	1.63	0.61
7. The technical computer problem reduced my writing grade*	42	51	5	2	0	100	1.65	0.61
8. Writing essays online provides me with more responsibilities in managing my time.	0	2	25	32	41	100	4.14	0.82
9. Getting immediate result and feedback from online assignment system motivated me.	0	2	23	37	38	100	4.13	0.79
10. Students' progress and results can be easily achieved via online assignment system.	0	2	21	34	43	100	4.2	0.79
11. I want to continue writing essays online for next term writing classes.	0	2	21	33	44	100	4.21	0.80
12. I am more comfortable with writing online than paper-pencil based one.	0	2	19	33	46	100	4.25	0.78
13. I had some difficulties getting access to computer and/or Internet and writing essay online.	0	2	20	38	40	100	4.18	0.77
14. Online essay writing is a positive experience and I prefer taking some other courses via	0	2	18	35	45	100	4.25	0.77

online.								
15. I do not want to take any assignment via online.*	45	42	11	2	0	100	1.68	0.69
16. Preparing for writing exams and getting my writing final grade. using online assignment system have helped a lot.	0	2	22	38	38	100	4.14	0.78

\* Reverse items

As shown above in table 1, the experimental group students who had previously written essays on paper, indicated that they prefer writing essays online (mean: 4.08). As reasons why they prefer online writing are; they spend less time when writing essays online (mean: 4.22), writing essays online provides them with more responsibilities in managing time (mean:4.14), receiving immediate feedback from online assignment system motivates them (mean: 4.13), they feel more comfortable with writing online than paper-based one (mean:4.25). They have also implied that they would like to take some other courses at school online as well (mean: 4.25). The results of the survey also showed that they do not think writing essays online have disadvantages for them (mean: 1.61). They also do not think that technical computer problems reducing their writing grades (mean: 1.65). They also disagreed with the statement that they do not want to take any assignments online (mean: 1.68).

#### Students Performance

The second research question was sought on students' homework performance scores and essay grades averages. In order to determine the writing level of the students in the intermediate level, the researchers carried out a pre-test. The mean scores for each group was almost equal. An independent sample t-test was used. As Table 2 indicates, there was no statistical difference between the pre-test scores of each group ( $p>0.05$ ).

Table 2: Independent sample t-test analyses of pretest results of each group

Group	N	Mean	Std. Deviation	T	p
Experimental Group	100	73.65	11.52632	0.255	0.799
Control Group	100	73.17	14.87799		

According to Table 3, the experimental group increased their averages compared to their pre-test scores though there were some increases and decreases in the averages. Similarly, the control group also increased their averages, but they were not as high as the experimental group's averages.

Table 3: Students' writing grades averages for each of the assignments of total seven weeks' program

Group	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Experimental Group	82.78	83.68	85.17	87.48	86.95	86.49
Control Group	78,64	77,64	74,03	71,96	72,72	76,2

At the end of the intervention, the researchers did a post-test with each group. Table 4 shows that the intervention caused a statistically significant difference between the pre-test and post-test scores of the experimental group ( $p<0.05$ ).

Table 4: Paired samples t-test analyses of pretest and posttest results of the experimental group

Type of test	N	Mean	Std. Deviation	T	p
Pretest	100	73.65	11.52632	-10.377	0.000*
Posttest	100	83.59	6.70759		

\* $p<0.05$

Table 5 indicated that there was a statistically significant difference between the post-test scores of the experimental and control groups ( $p<0.05$ ). The mean score of the experimental group was higher than the control group's mean score. Therefore, computer-based essay writing improved EFL students' writing

achievement more than paper-based essay writing.

Table 5 : Independent sample t-test analyses of posttest results of each group

Group	N	Mean	Std. Deviation	T	p
Experimental Group	100	83.59	6.70759	6.900	0.000*
Control Group	100	74.77	10.88216		

\*p<0.05

### Conclusion

The aim of this study was to find out the efl learners' perceptions about the online writing systems and to see if there is any effect of this system on their writing performances and achievements. A 16-item EFL Learners' Perceptions of Online Essay Writing survey was administered to 100 students (38 male and 62 female students) in intermediate level writing classes at English Language Program of a foundation university in Turkey.

There was a statistically significant difference in homework performance score in terms of assigned groups. The participant students in this study had been enrolled in paper based writing course beforehand and so they had also experimented it which shows us better results regarding to their perceptions. In terms of assignment grades, the experimental groups showed better performance on their scores. The students also stated in the questionnaire (ranged 4.25) that they are more comfortable with writing online than paper-pencil based one and online essay writing is a positive experience and they prefer taking some other courses via online. They also indicated that they are totally disagree with the statement Writing essays online has disadvantages for them which tells us that they found online writing course advantageous for themselves Meanwhile Table 1. Also shows us that there is no "no opinion" range mean in the students' perceptions, and as also considering the reverse items, almost all of the students have positive thoughts and attitudes towards the online writing systems.

### Implications and Discussion

The results of this study showed us that the new generation needs different perspectives on teaching them the language skills. The language educators should find ways to differentiate their teaching skills especially by using digital literacy skills. Relevant literature recommends us that additional researches are needed in this area. By considering other variables such as face-to-face, distance, and blended learning instruction systems and state universities and private universities, another study should be conducted.

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