

Teacher Opinions Regarding the Impact of Educational Software on Reading Skills of First Graders *

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Abstract

The purpose of this study is to evaluate teacher opinions on the impact of educational software used for reading instruction. It is designed as a qualitative research. The study group consists of 8 classroom teachers. Data is collected as semi-structured interviews, and analyzed by content analysis. According to the qualitative results of the study, teachers have positive opinion on educational software. Teachers listed the advantages of educational softwares as; they are beneficial to students, draw students' attention, enrich learning environment, support teachers, help saving time, and improves active student participation and access. They mentioned that educational softwares lose their effectiveness when used frequently, caused technical problems, pasify teacher, and open to misuse as some disadvantages. Teachers stated that general difficulties encountered in the process of instructing reading include in the areas of reading comprehension, combining syllables, feeling sounds, hyphenation, creating syllables, erroneous reading, slow reading, and changing sounds based on the letters. For solving these problems, they stated that educational softwares are helpful especially in hyphenation, feeling sounds, correct reading, reading comprehension, and fast reading.

Keywords: Educational software, reading skills, reading instruction, teacher opinions

Introduction

Advances in science and technology affected education and most importantly the processes of learning and teaching by changing the means of accessing knowledge. In today's information society, educated people are transformed into individuals who are able to follow developments related to themselves, apply them to their lives, question are open to new developments, use communication technologies effectively (MEB, 2009).

As a result of the advances covering computer, projectors, and educational software, reading skills have been affected by rapid technological changes. Computer science has crucial roles in the areas of the success of reading instruction, solving the problems related to reading (National Institute of Child Health and Human Development [NICHD], 2000) and "motivation, individualized instruction and interaction" (Ertem, 2010, p. 140). Therefore, in this study, teachers' opinions on the impact of educational software on reading skills were examined.

Method

In this part, explanations related to research model, working group, data collection, and data analysis are given.

Research Model

The purpose of this study is to evaluate teachers' opinions about the impact of educational softwares on first graders' reading skills. For this reason the study was designed according to qualitative research methods.

In this study, semi-structured interview were conducted. Interviews are used as the shortest path to learn individuals' thoughts, attitudes, behaviors and their possible causes on various issues (Karasar, 2009, p. 166).

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Working Group

The study group consists of eight volunteer classroom teachers. Data related to teachers' gender, professional experience and number of teaching first graders are shown in table 1.

Table 1: Study Group Teacher Data

Teacher	Gender	Professional Experience (Years)	Number of Teaching First Graders
T1	F	15	2
T1	F	13	4
T3	M	9	3
T4	F	7	1
T5	M	10	3
T6	M	25	4
T7	F	8	3
T8	F	4	1

Data Collection Tools

In this study, semi-structured interview forms which are prepared by the researcher and her supervisor are used.

Semi-Structured Interview Form

In the process of form preparation, related literature review has been completed and questions for the teachers have been written for the purpose of the study. Expert opinion has been asked to prepare questions. Interview data were examined and form is finalized.

Data Collection

Semi- structured teacher interviews are done by the researcher and data were collected. Before the interviews, teachers were informed about the purpose of the study. Questions on the interview forms are asked to teachers and their responses are audio-recorded. After the completion of interviews, their response scripts are shown to them. Teachers confirmed their answer and the data are finalized.

Data Analysis

The content analysis is used to analyze the content of the data obtained from semi-structures interviews. According to Yıldırım and Şimşek (2006, p. 228), qualitative data are analyzed in four stage in content analysis. These stages are:

1. Data Coding: Data which belong to concepts that lack a certain theoretical basis are analyzed inductively by the researcher and revealed. In inductive analysis, codes are derived from the data.
2. Identifying Themes: To identify themes, codes are gathered and analyzed. Common features are investigated among the codes.
3. Editing Codes and Themes: A Researcher forms a system to organize the collected data and the data are organized by that system. In this way, it is possible to define and interpret the data according to specific phenomena.
4. Defining and Interpreting Data: Researcher has to make sense of the data collected, explain relationships among data, form cause-effect relationships, draw some conclusions out of data, and make explanation about the significance of the results obtained.

Data related to qualitative part of the research were subjected to content analysis in accordance with phases. In this context, the data obtained through semi-structured interviews with the teachers are analyzed and transcribed by the researcher and an expert in the field. Transcribed data has been coded and themes are found. Data is arranged according to codes and themes, findings are supported by excerpts an interpreted. During the course of analysis real names of teachers are not used to keep their privacy.

Findings

The Analysis of the Question “What are your thoughts on Educational Software?”

The answers to the question “What are your thoughts on educational software?” are analyzed; and coded under the theme of "positive". Although teachers noted that educational software has advantages and disadvantages, generally they stated the necessity of using them. Some teachers expressed their opinions about the issue as follows:

“Educational software definitely supports both teacher and students, and I am using. I think it is helpful. I am using Morpa Kampüs” (T1).

“I have used for five or six months and I've seen a lot of positive aspects” (T2).

“I have a positive opinion about educational software. I believe, in the future they will become more important in education” (T5).

“I think educational software is helpful except the Ministry of Education resources” (T6).

“I generally use Morpa Kampüs among educational softwares. I have a positive opinion about educational software” (T7).

The Analysis of the Question “What do you think about the Benefits of Educational Softwares?”

The answers to the question “What do you think about the benefits of educational softwares?” are analyzed; and coded under the themes of “beneficial to students”, “draws attention”, “rich environment”, “teacher support”, “time saving”, “accessibility” and “active participation”.

Seven out of eight teachers stated that educational software is beneficial to students. Some teachers expressed their opinions about the topic as follows:

“All students are not auditory learners. They do not understand conversations, explanations at first. In such cases technological tools and educational softwares help learning” (T4).

“I think they support children especially by provide missing knowledge, students will benefit” (T6).

Six out of eight teachers stated that educational softwares draws attention. Some teachers expressed their opinions about the topic as follows:

“Education supported by audiovisual games draws child's attention and could be effective for preparing children towards subject” (T1).

“Since they are motivating and engaging, I find them useful” (T2).

“It either draws student's attention or it contributes attracting attention” (T3).

“Students love them. All the children were beginning to hop around, so inevitably they are learning the song, and the letter along with the song. It is very successful to draw attention” (T5).

“We can retain their attentions during the course of one period” (T7).

“Songs full of certain sounds are supported with animations to draw their attention” (T8).

Five teachers stated that educational softwares are enriching the environments. Some of their opinions are listed below:

“When we evaluate students' perspective, it caters multiple intelligences” (T1).

“It provides diverse examples. It gives a sound and supplies many images about that sound” (T3).

“Students learn easier with different ways. I think it is more effective on students with different learning styles” (T4).

“As teachers, we are able to prepare different materials so we can enrich the learning environment” (T7).

Five teachers mentioned that educational softwares support teacher. Some of their opinions are as follows:

“Some sounds coming out of throat are difficult to pronounce. In that case, it supports teacher” (T1).

“You do not need a lot of effort, teacher remain vigorous and students understand better” (T2).

“Teacher's job becomes easier” (T3).

“Makes a major support for us” (T5).

“Education software is the biggest support for the teacher” (T7).

Four teachers stated that educational softwares help saving time. Some of their opinions are listed below:

“You can save time” (T2).

“Saves time” (T3).

“Teachers access to the information in a short time” (T4).

Two teachers stressed the accessibility of educational softwares. Some teacher opinions are as follows:

“Since teaching materials are ready and easily accessible, we can use them whenever we want” (T4).

“We can find visual materials in case we could not find them elsewhere” (T7).

Two teachers noted that educational softwares provide active participation. These are some opinions about the topic:

“You make students active” (T2).

“We teach them how to learn” (T5).

The Analysis of the Question “What do you think about the Disadvantages of Educational Softwares?”

The answers to the question “What do you think about the disadvantages of educational softwares?” are analyzed; and coded under the themes of “losing effectiveness”, “technical problems”, “pasifying teacher”, and “misuse”.

Four teachers stated that educational softwares lose their effectiveness when they are used frequently. Some teachers expressed their opinions about the topic as follows:

“I think its continuous use does not create awareness. It causes loss of awareness” (T1).

“When I use too often, I cannot draw students attention. It loses its awareness” (T2).

“Sometimes students lose themselves in the details such as when I make them watch to feel the sounds, their attention is lost to shoes of the characters” (T3).

“I think, even it loses its effectiveness when excessive use. As children do not enjoy the cartoon when they watch again and again, students have difficulty concentrating on the subject or they lose their focus to trivial details shown on the material presented. I think it is not effective when used excessively” (T4).

Two teachers stressed technical problems they encountered while using educational software. Teacher opinions about the concept are as follows:

“From a technical perspective, continuous connection problems, long start time of projector, a total of 10-15 minutes preparation time discourages teacher to use” (T1).

“Technology is a human production, it may stop working unexpectedly. You make your preparation accordingly but if it does not cooperate, you are on your own” (T2).

Two teachers mentioned that educational softwares pasify teacher. Some teachers expressed their opinions as follows:

“It might make teachers lazy” (T5).

“It makes teachers lazy in some areas” (T7).

A teacher noted that misuse of educational softwares may be a disadvantage. His opinion is as follows:

“It may be destructive if it somehow hinders teacher's role” (T3).

The Analysis of the Question “What are the Challenges you face while you are Instructing Reading to First Graders?”

The answers to the question “What are the challenges you face while you are instructing reading to first graders?” are analyzed; and coded under the themes of “reading comprehension”, “combining syllables”, “feeling sounds”, “hyphenation”, “creating syllables”, “erroneous reading”, “slow reading”, and “changing sounds”.

Regarding the challenges that they face in the process of teaching first graders how to read, seven teachers stated that students have difficulty in reading comprehension. Below are some of their opinions:

“Mostly, students have trouble with reading comprehension. Children do not understand clearly what they have read when they read slowly” (T1).

“It becomes difficult to teach especially number of consonants increase in a word because students have difficulty of making sense of the text” (T2).

“They know sounds, but since they spend a lot of time sounding the letters they do not understand the words” (T3).

“I think, students who lack reading habits do not comprehend the texts” (T4).

“They do not fully understand what they have read” (T7).

“Since they are unable to read words or sentences, they have difficulty in comprehension” (T8).

Six teachers mentioned that students have difficulty in combining syllables. Their opinions as follows:

“First we teach parts and then ask them to grasp whole, and that takes time” (T1).

“They experience difficulty to form closed syllables and in combining syllables” (T2).

“I taught one year and continued with the same first graders until they graduate and as far as I observed they mostly have difficulty in combining syllables” (T4).

“Students experience difficulty in combining syllables” (T6).

“They had difficulty in combining sounds with other letters, in other words, they have difficulty in combining syllable” (T7).

“They experience difficulty in the phase of reading words or putting together syllables” (T8).

Four teachers noted that students have problems in feeling sounds. These are their opinions:

“We have challenges with consonants to make students feel sounds” (T1).

“Parents teach the feeling of sounds incorrectly for example in place of “sss” they learn as “se” , then, it becomes even more difficult to correct” (T2).

“The first difficulty is they do not detect where the letters are. They mix up the sounds of ‘y’ and ‘ğ’ ” (T5).

“Mostly they experience difficulty while feeling the first group of sounds” (T8).

Two teachers stated that they see problems in creating syllables. Their opinions about the topic are as follows:

“Difficulty is experienced in creating closed syllables” (T2).

“They had difficulty in open syllables and three-letter syllable” (T8).

Two teachers stated that students had reading errors. Their opinions are given below:

“Students had difficulties. Either they read incompletely showing the sign of careless reading or they add syllables to the words” (T4).

“After learning to read they remove some sounds from the words” (T7).

Two teachers mentioned that students read slowly. Their opinions about the topic are given below:

“Students have fluency problems” (T1).

“They have problems in combination and that slows them down” (T6).

One teacher mentioned that students experience hyphenation problems. His statement is given below:

“Some children cannot understand the concept of syllable. For example, instead of ‘ka-mil’, they read as ‘kam-il’ and a different word is sounded. We had problems with those children” (T5).

One teacher noted that students experience difficulty in changing sounds. His opinion is given below:

“While reading a text in quotation mark they had hard time to change narrating voice” (T5).

The Analysis of the Question “How do the Educational Softwares help Solving Problems Encountered in Reading Instruction?”

The answers to the question “How do the educational softwares help solving problems encountered in reading instruction?” are analyzed; and coded under the themes of “spelling stage”, “feeling sounds”, “correct reading”, “reading comprehension” and “reading speed”.

Regarding the solution of problems encountered in the process of teaching how to read four teachers stated that educational softwares are beneficial in spelling stage. Below are some of their opinions:

“To have them grasp sounds, they are very useful especially when a new sound is added beside a sound” (T2).

“It can be used to make syllables or words out of letters. It is effective to go from syllables to words” (T4).

“It makes a difference while first graders are combining sounds. It helps combination” (T7).

“Useful in the hyphenation step” (T8).

Three teachers stated that educational softwares are beneficial for feeling sounds. Below are their opinions:

“Very useful in comprehension of sound” (T2).

“For example, it can be used to introduce letters” (T4).

“At first they are useful to teach letters, in other words, they are helpful in feeling the sounds” (T8).

Two teachers mentioned that educational softwares are useful for reading correctly. Teachers' opinions about the topic are as follows:

“Students learn a new vocabulary in the educational software and use them to further search out of curiosity for new words and so it improves reading” (T4).

“Educational softwares are useful in pronunciation of the words” (T8).

One teacher mentioned that educational softwares are helpful in reading comprehension stage. Her opinion about the topic is as follows:

“Educational softwares are helpful in reading comprehension” (T1).

One teacher mentioned that educational softwares are beneficial for reading fast. Her opinion about the topic is as follows:

“Educational software are helpful to read fast. Students read and comprehend faster what they read” (T1).

Results and Discussion

In order to see the effects of educational software on first graders' reading instruction, semi-structured interviews were conducted. Teachers stated that educational softwares have advantages and disadvantages. They also noted the necessity of using educational softwares while teaching reading and they mentioned that they have positive thoughts towards educational softwares. These results are similar to the results of Orhan (2007) who interviewed with twelve teachers who used computer-aided reading and writing instruction. In that study teachers also mentioned the necessity of projectors along with computers.

Teachers listed the benefits of educational softwares as: they are helpful, they draw students' attention, they provide rich learning environment, they support teacher, they help saving time, they provide easy access, and they provide active student participation. These results are consistent with the findings of Reitsma and Wesselling (1998) who found that computer supports teachers; findings of Kablan (2001) and findings of Orhan (2007). Kablan investigated the effectiveness of presentation program for materials preparation; suitability of presentation program for reading instruction via teacher interview. Kablan also found that the materials prepared by presentation program can be used to enrich learning environment; they draw student attention; those kinds of materials can be used in reading instruction; can be used in sentence analysis and synthesis. Orhan (2007) showed that using computer during reading instruction help retention of learning, improves motivation and focus, serves multiple intelligences, reduces writing errors, and saves time.

Teachers mentioned that educational softwares lose their effectiveness when excessively used, they cause some technical problems, pasify teachers, and that they may hinder the teacher's job if misused. Teachers stated that first grade students experience difficulties in reading comprehension, combining syllables, feeling sounds, hyphenation, creating syllables, erroneous reading, slow reading, and changing sounds. They stated that educational softwares are useful in hyphenation stage, feeling sounds, reading correctly, reading comprehension, and reading fast. The findings obtained from the semi-structured interviews with teachers are consistent with the study of Olson and Treiman (1990). In that study, a software with colored lines and audio was used for reading instruction of first graders. As a result of the study, students improved skills of combining sounds, and when they see words in other texts they can easily read (Sherman, Kleiman and Peterson, 2004). At the same time, this study is consistent with the finding by Orhan (2007). That the study computer aided reading instruction helped the feeling of sound.

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