

## The Use of Educational Software in Teaching Initial Reading and Writing\*

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### Abstract

This research reveals teachers' views on the educational software used in primary reading and writing teaching process. The research was considered as qualitative research as case study. The data were obtained by interview and observation. The sample of the study consists of 26 primary school teachers who teach the first graders in the 2018-2019 academic year in primary schools in the central district of Niğde, Turkey. The selected teachers were chosen using simple random sampling method. In the research, semi-structured observation and interview forms were used as data collection tools. The data were analyzed by the content analysis method. It has been determined that educational software for students provides an advantage in terms of concretization of teaching, differentiation of activities, minimizing individual differences between students, giving attention to the lesson, giving them an opportunity to apply what is learned, addressing many different sensory organs in students, motivating and supporting students.

**Keywords:** Reading, Writing, Teaching Primary Reading and Writing, Educational Software

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## INTRODUCTION

Technology is increasingly moving to influence our lives, because most of the activities are being conducted through technology. In a world mediated by technology that has become an integral part of our daily life, people are learning, working and having fun together. People now prefer to use tablets, phones and computers rather than traditional communication methods. (Haller, 2005). Technological changes are altering everything from the way people work; to the way they interact and spend their free time together. Information, communications and multimedia technologies have an impact on this change (Kellner, 2002).

Today, students take advantage of technology for entertainment, communication, and learning. In this period, students must have technology-rich learning environments in schools (Austin, 2004). In education, technology is a tool that helps teachers to embody information to create enriched and collaborative learning environments, to meet the needs of different learning styles, to support learning transfer, and to enable equal opportunities in education (Silva & Miranda, 2005; Osório & Machado, 2005; Romero & Silva, 2005). Computer technology helps children control learning experiences by providing concrete experiences (Papert, 1998). It also allows us to connect with other people, stores large amounts of data, gives us access and entertainment (Yelland, 2002).

The rapid development of computers that are a technology wonder, has also affected our education system in recent years. It has required some important changes to be made in our education system. The use of new technologies in education facilitates training activities by the interaction of more sensory organs than traditional methods (Yanpar, 2006). Children also support all their developmental areas for using computers to investigate questions, solve problems, explore and manipulate objects on the screen (Dodge, Colker & Heroman, 2003; Eryaman, 2007).

Information and communication technologies should be used as much as possible in the learning teaching process. The use of these technologies will enrich teaching strategies while also supporting students' learning. Students should be encouraged to take advantage of computer programs in gathering, organizing and classifying their data, in writing, editing and presenting their findings (MEB, 2017). Bacanak, Karamustafaoğlu, and Köse (2003) state that individuals should follow technological developments and know how to use them to make life easier for them. However, they emphasize that technology should be used in education and that information studies should be conducted to inform individuals about these technological developments.

### **Educational Software and Initial Reading and Writing**

The fact that computers ensure active participation of students in education by taking into account the individual differences of students in the educational environment has brought the Computer Assisted Education Method into the agenda. Computer assisted education is a way of teaching that combines the principles of self-learning with computer technology, which is used as an environment in which learning occurs, which strengthens the teaching process and student motivation, and which the student can benefit from the self-learning speed. Computer assisted education can also be described as activities in which students interact with the computer programmed lessons, while the teacher acts as a guide and the computer plays an environment role. In computer assisted education, the computer is used as a teaching tool that assists the teacher by taking on some of the duties and also as an environment where learning occurs. When used in this way, the computer cannot replace the other components of the education system such as books, friends and teachers. The point that should be highlighted here is that the computer is a teacher-assisting tool like educational tools such as books, cyclopes, movies, etc. The computer can function as a teaching assistant and can make the teaching more student-centered (Gürol, 1990). Educational software used in computer assisted education has made teaching both more fun and facilitating teaching. These educational software tools are highly effective applications that enable multi-learning environments and drive students into lessons. These software tools are divided into types, as follows:

a. Tutorial Software: It is software that provides students with all the knowledge and learning activities they need based on specific learning objectives.

b. Exercise and Practice Software: It is software that enables students to retrain and practice subjects that have been discussed.

c. Similar Software: It is software that represents real life and situations or where realistic situations created.

d. Problem Solving Software: It is software designed to provide students with problem solving skills.

e. Educational Games: It is software that is created by providing game features to learning activities and aims to increase the motivation level of students (Baysal, 2013).

Educational software can be used in many lessons and is used effectively in teaching initial reading and writing. There are many educational software in our country within the scope of teaching initial reading and writing. "Educational Informatics Network (EBA)", "Okulistik" and "Morpa Kampüs" are the most commonly used of them. Established through the Ministry of National Education, the EB is more complementary to the activities by registered members sending into the system, rather than one-on-one initial reading and writing teaching. On the other hand, "Okulistik" and "Morpa Kampüs" provide effective teaching with their applications at every stage of initial reading and writing teaching.

In initial reading and writing teaching supported by educational software, it is quite important to support the abstract letters for the children at every stage of the process through visuals and letter activities in order to ensure permanence. Educational software will help students find relationships between their reading, spelling, and meaning when learning sounds, letters, syllables, words, and phrases (Van Daal & Reitsma, 2000). In other words, effective use of technology and especially educational software has become a necessity to make initial reading and writing skills that will affect children's entire life and academic life more efficient. Information technology included with educational software is an important learning tool in teaching initial reading and writing, for many reasons, such as appealing visually and audibly to students in teaching initial reading and writing, making the classroom environments more fun, increasing attention, and enabling equal opportunities in education.

Reading skill is one of the most important skills that students should acquire in elementary education, as it will form the basis of students' lifelong academic success (Stevens, Slavin & Farnish, 1991). In order for children to acquire the reading skill in the desired quality, the factors affecting this skill need to be known and these skills need to be developed. Reading skill is essential for learning all the lessons. The person whose reading skills are not sufficiently developed will have problems and difficulties in learning other lessons (Zipke, 2007). For students with reading difficulties, educators turn to computers and electronic materials and see emerging technologies such as the Internet today as applicable tools in the general context of reading, writing and education (Kulik & Kulik, 1991). It is also said that computer technology has not been well-integrated in elementary schools, although computer use has very well documented benefits in the educational environment (Becker, 1998; Bauer & Kenton, 2005; Judge, Puckett & Bell, 2006; Dwyer, 2007). Few studies in the literature examine different integration methods, the scope of technology integration, or compliance of authorized software programs for teaching reading or writing in regular classrooms. Studies that examine general technology integration using software and hardware not found in most classrooms or specific software for intervention efforts in private education are more common (Meridith & Linda, 2009).

Educational software plays an important role in teaching initial reading and writing. The results of the researches show that the use of technology is beneficial in the "feeling the sounds",

“recognizing sounds”, “creating syllables”, “teaching vocabulary”, “writing sentences” and “understanding what you're reading” stages of the initial reading and writing. Moreover, educational software reveals from the research results in which not only successful students, but also students who have problems with reading improve their initial reading and writing skills and contribute to them. In Yalçın (2006) study, it was concluded that a teacher who continued teaching initial reading and writing process with software had a positive effect on the students' initial reading and writing skills. In Felix, Mena, Ostos, and Maestre (2017) studies, computer assisted education is effective in initial reading and writing of mentally disabled children. Judge (2005) investigated the effect of computer technology on initial reading and writing success of African American children and showed that children's access to computer technology both at home and in the classroom significantly increases their academic achievement, and that children's frequent use of educational software also increases their academic success. Rowe's (2007) study determined that computer assisted education is very effective in teaching symbols and signs in Social Studies. Black and Wood (2003) state that a computer can be a patient and repetitive teacher, provides students with many opportunities to learn and evaluate, and ultimately reduces anxiety and failure expectation. Computer technology, however, cannot be considered as a panacea in any way to educate children, since the real benefit of computer assisted education depends greatly on the quality and competence of the software (Lloyd, Moni & Jobling, 2006).

Teachers must actively and efficiently use educational software, which allows for the creation of multiple environments to enable students a significant skill such as reading and writing, as the use of technology in education is inevitable with some of the above-mentioned research results. For this reason, it is aimed to examine the use of educational software in teaching initial reading and writing in general for teacher views. For this purpose, the study sought answers to the following questions:

1. How do teachers include educational software in planning teaching initial reading and writing process?
2. What are the positive and negative aspects of the educational software used during teaching initial reading and writing process for students?
3. What are the positive and negative aspects of the educational software used during teaching initial reading and writing process for teachers?
4. What are the benefits of educational software in eliminating the difficulties encountered in teaching initial reading and writing process?
5. What are the teachers' recommendations on the use of educational software used during teaching initial reading and writing process?
6. Do teachers' views on the use of educational software coincide with the observation data obtained?

This research is expected to raise awareness about the use of technology in educational activities. It would be a correct step to consciously increase the use of technology in order to achieve more efficient initial reading and writing, which is known to be important.

## METHOD

The study was planned and conducted as a qualitative case study. The case studies are based on the question 'how' and 'why' and allow the researcher to examine a phenomenon or event in depth that cannot be controlled (Yıldırım & Şimşek, 2006). In the case study, more than one data collection method is often required, in this way, a rich variety of data is attempted to be achieved to verify each other.

Observations and interviews were made in the research. The interview method is used as the shortest way to determine the knowledge, opinions, attitudes and behaviors of individuals on different issues and their possible reasons (Karasar, 2009, p. 166). Observation is defined in Turkish Language Association's Dictionary (2018) as "Careful and planned treatment and examination of an object, an event or a fact in order to be known the characteristics of it". Qualitative research provides researchers with significant flexibility in creating and conducting research patterns. Developing new methods and approaches at every stage of the research and making changes to the research pattern are the main characteristics of qualitative research (Yıldırım & Şimşek, 2016, p. 52).

### Working Group

Since the working group was easily accessible, 26 elementary school teachers (8 females and 18 males) who are teaching first-year pupils in the Central district of Niğde Province were established in the 2018-2019 Academic Year. Voluntary teachers with experience in their fields and use educational software generally during teaching initial reading and writing have been preferred when determining the working group.

**Table 1. General Information on Teachers Interviewed**

Teacher	Gender	Age	Service Year	Graduated Program	Educational Software Used
T1	Female	50	(26-30)	Elementary School Teaching	Software-1, Software-2
T2	Female	38	(11-15)	Elementary School Teaching	Software-1, Software-2
T3	Male	46	(16-20)	Elementary School Teaching	Software-3
T4	Male	46	(21-25)	Elementary School Teaching	Software-1, Software-3
T5	Male	55	(26-30)	Elementary School Teaching	Software-1, Software-3
T6	Male	26	(1-5)	Elementary School Teaching	Software-3, Software-2
T7	Female	40	(21-25)	Other	Software-3
T8	Male	47	(21-25)	Elementary School Teaching	Software-3
T9	Male	28	(6-10)	Elementary School Teaching	Software-1, Software-3
T10	Male	33	(11-15)	Elementary School Teaching	Software-1, Software-3, Software-2
T11	Male	39	(16-20)	Other	Software-1, Software-2
T12	Male	53	(21-25)	Other	Software-3
T13	Male	25	(1-5)	Elementary School Teaching	Software-3, Software-2
T14	Male	45	(21-25)	Elementary School Teaching	Software-1, Software-3, Software-2
T15	Female	49	(21-25)	Other	Software-1, Software-3, Software-2
T16	Male	43	(16-20)	Elementary School Teaching	Software-2
T17	Male	39	(16-20)	Elementary School Teaching	Software-1, Software-2
T18	Male	47	(21-25)	Elementary School Teaching	Software-1, Software-2
T19	Female	45	(21-25)	Elementary School Teaching	Software-1, Software-2
T20	Female	52	(30+)	Other	Software-1, Software-3, Software-2, Other
T21	Male	48	(21-25)	Elementary School Teaching	Software-1, Software-3, Software-2, Other
T22	Male	35	(6-10)	Elementary School Teaching	Software-1, Software-3, Software-2, Other
T23	Female	29	(6-10)	Elementary School Teaching	Software-1, Software-2
T24	Male	29	(6-10)	Elementary School Teaching	Software-1, Software-2
T25	Male	38	(16-20)	Elementary School Teaching	Software-1, Software-2
T26	Female	33	(11-15)	Elementary School Teaching	Software-1, Software-2

### Data Collection

In the study, a semi-structured observation and interview form was prepared in line with the opinions of elementary school teachers on the educational software in used during teaching initial reading and writing process by scanning the relevant area and with the opinions of field experts. The interview form contains 3 questions on teaching initial reading and writing process and 4 on the use of educational software. A semi-structured interview form was used to get the opinions of the teachers about the educational software used in teaching reading and writing. Prior to the meeting, brief information was provided on the interview and it was reported that the interviews would be recorded with the recorder. The interviews lasted between 4 minutes and 13 minutes. The interviews were usually conducted in the schools where teachers worked and in the teachers' offices. The prepared

interview form contains 4 questions about how teachers guide the process of teaching initial reading and writing and 4 questions about how they incorporate educational software into the process.

### **Data Analysis**

Content analysis method was used to analyze data from semi-structured interviews. Büyüköztürk et al. (2008) stated that content analysis is a systematic, repeatable technique in which some words of text are summarized by smaller content categories with coding based on specific rules. The main purpose of content analysis is to reach concepts and relationships that can explain the data collected. Thus, similar data are collected and interpreted within the framework of specific concepts and themes in a way that is understood by the reader (Yıldırım & Şimşek, 2016, p.227). According to Yıldırım and Şimşek (2016, p. 228), qualitative data are analyzed in four stages in the content analysis. These stages are as follows:

1. Coding of data
2. Finding themes
3. Editing codes and themes
4. Identification and interpretation of findings

The data obtained from the interviews were made twice a 6 week break, following the steps above. Convergent reliability between the two analyzes were calculated, in order to calculate the reliability of the analysis of the interviews. The following formula is used for the calculation of convergent reliability (Miles & Huberman, 1994, p.64):

$$\text{Convergent Reliability} = \frac{\text{Consensus}}{\text{Consensus} + \text{Divergence}}$$

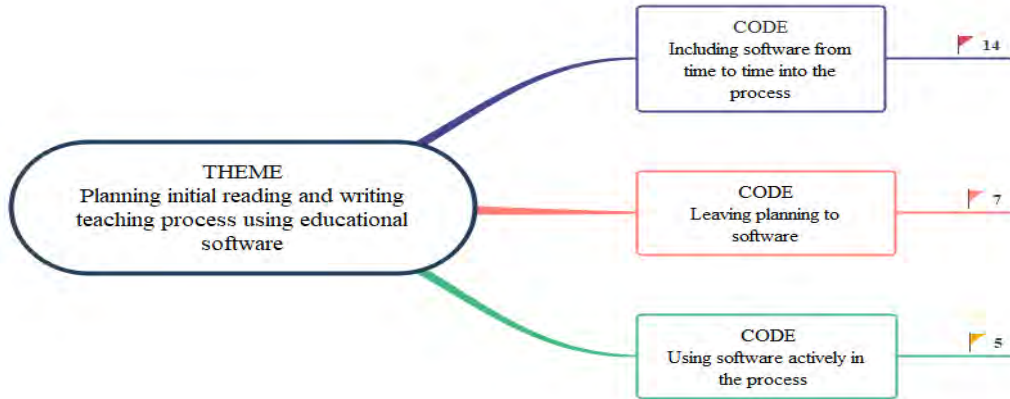
Here, the same codes obtained from the two analyzes are expressed as "consensus" and the different codes are expressed as "divergence".

The analysis revealed that the convergent reliability is between 72 percent and 100 percent. The overall average of the analyzes' convergent reliability was 85.35 percent. The percentage of convergent reliability obtained as a result of this process is above 70 percent, it is considered reliable for the research (Miles & Huberman, 1994, p. 64). According to this prerequisite, it is seen that the percentage of convergent reliability obtained from the analysis of the research is quite high.

Qualitative research has taken measures to enhance the validity and reliability. In order to enhance the reliability of the data obtained from this study, the interaction process with the situation was increased and "data triangulation" was performed, meaning that multiple data collection methods were used in the collection of the data (Yıldırım & Şimşek, 2016, p.278). In order to increase the interaction process and data triangulation, observations and interviews were conducted in the research. 26 teachers were interviewed and 14 hours of observation was conducted with ten teachers selected from the interviewed teachers at different times and at different durations. The obtained data are presented in the "Findings and Comments" section, in support of each other.

## FINDINGS

This part of the research contains quotations along with the themes, codes and categories created as a result of interviews with teachers based on the objectives:

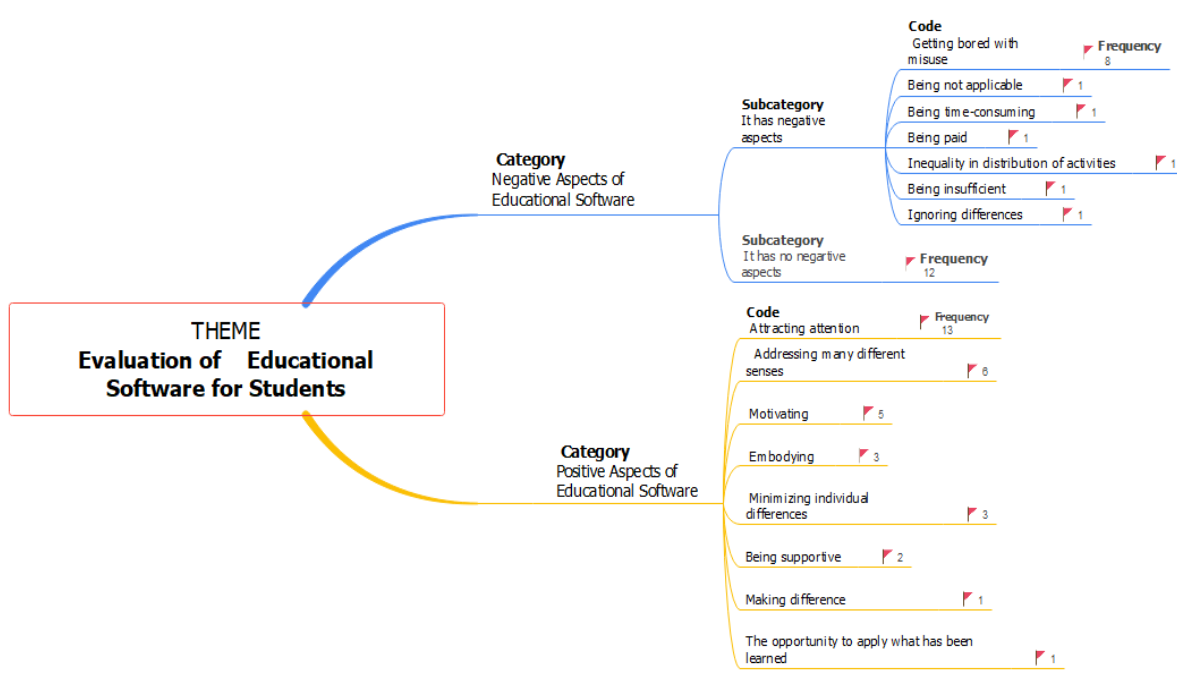


**Figure 2. Planning initial reading and writing teaching process using educational software**

As a result of the analysis, 14 of the teachers stated that they occasionally use educational software from time to time in teaching initial reading and writing process, 7 of them left planning initial reading and writing teaching process to educational software, and 5 stated that they actively use the educational software in teaching initial reading and writing process. Finally, it has been established that the majority of teachers use educational software from time to time in teaching initial reading and writing process.

### Example of direct quote at the interview result:

*"I include the educational software in my plan. So I make my plan and then I look at the educational software. I use visual elements, presentations or videos that fit my plan." T3*



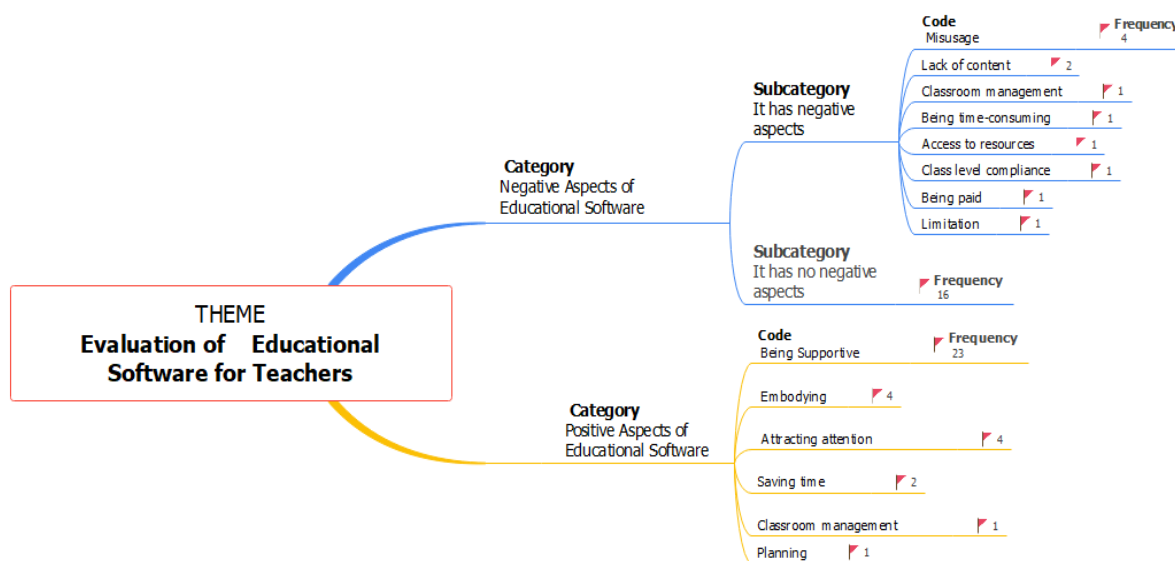
**Figure 3. Positive and negative aspects of educational software for students**

As a result of the analysis, all of the teachers who participated in the interview stated that the educational software used in teaching initial reading and writing process had positive aspects for the students. Furthermore, 14 of the teachers stated that there were also negative aspects of educational software as well as the positive aspects. Meanwhile, 12 of the teachers stated that the software had no negative aspects.

The number of teachers who stated that the educational software used in the process benefited the student most from the point of "attracting attention" is 13. In addition, 6 teachers stated that the students benefited from the point of "addressing many different senses", 5 teachers "motivating", 3 teachers "embodying", 3 teachers "minimizing individual differences", 2 teachers "being supportive", 1 teacher "making difference" On the other hand, 1 teacher stated that it is beneficial in providing "the opportunity to apply what has been learned".

8 of the teachers who evaluated the educational software for students stated that the software caused "getting bored with misuse" on students. However, they also stated that educational software has negative aspects such as 1 teacher "getting bored with misuse", 1 teacher "being not applicable", 1 teacher "being time-consuming", 1 teacher "being paid", 1 teacher "inequality in distribution of activities", 1 teacher "being insufficient" and 1 teacher "ignoring the differences".

*"I have a point of interest in educational software for students. This point is the storification of teaching sounds in software. The kids like it very much. It motivates them. As a negative side, I can say that there is not much weight for writing activities. There are reading-oriented activities. However, I also favor that writing activities are heavily involved. Children can be incomplete at this point." T9*



**Figure 4. Positive and negative aspects of educational software for teachers**

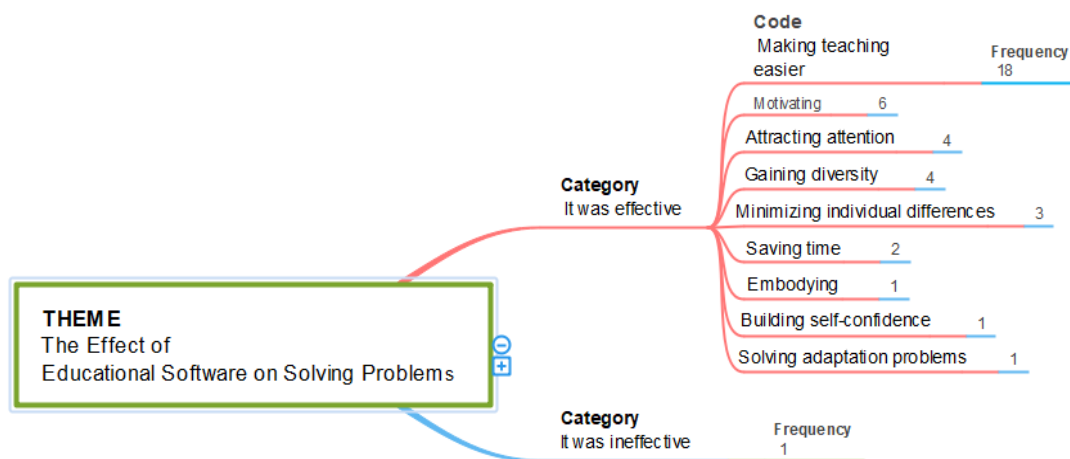
As a result of the analysis, all of the interviewed teachers stated that the educational software used in the process had a positive aspect. However, there were some teachers who said that software had negative aspect. 16 of the teachers stated that educational software does not have a negative aspect. 10 of the teachers stated that the software had negative aspect.

The 23 teachers who evaluated educational software for the teachers stated that they benefited from "being supportive", 4 teachers "embodying", 4 teachers "attracting attention", 2 teachers "saving time", 1 teacher "classroom management" and 1 teacher "planning". The majority of teachers stated that educational software used in teaching initial reading and writing process offered them support in many different areas.



The 4 teachers who evaluated educational software for the teachers stated that they had negative aspects in terms of "misusage", 2 teachers "lack of content", 1 teacher "classroom management", 1 teacher "being time-consuming", 1 teacher "access to resources", 1 teacher "class level compliance", 1 teacher "being paid" and 1 teacher "limitation".

*"Using ready-made activities in educational software rather than preparing the activities myself makes my work much easier. It makes our work much easier in terms of classroom management if we prepare for software activities in advance. On the negative aspect, when we are unprepared, it takes quite a while to open the software and find it, and the children can be distracted immediately."* (T11)



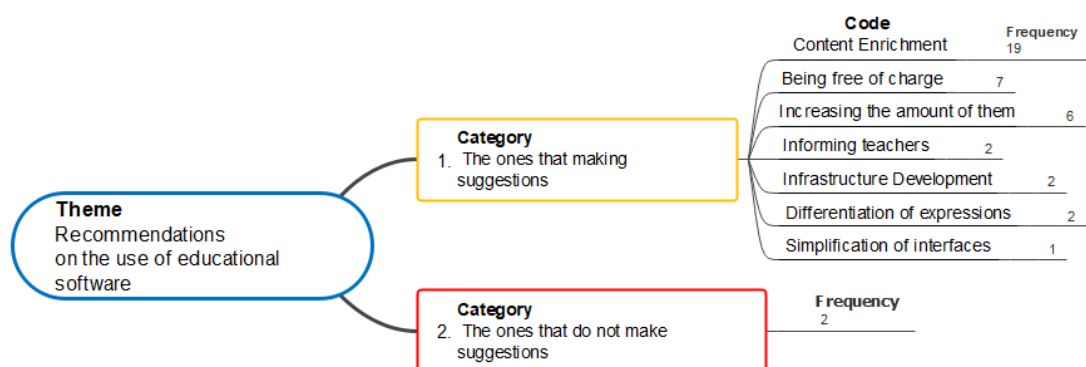
**Figure 5. The Effect of Educational Software on Solving Problems**

When the analysis was examined, 25 of the interviewed teachers stated that educational software was effective in solving the problems encountered in teaching initial reading and writing process. One of the teachers interviewed stated that it had no effect on solving the problems encountered in the process.

18 teachers who believe that educational software is effective in solving the problems encountered in teaching initial reading and writing process, think that they solve problems in terms of "making teaching easier", 6 teachers "motivating", 4 teachers "attracting attention", 4 teachers "gaining diversity", 3 teachers "minimizing individual differences", 2 teachers "saving time", 1 teacher "embodying", 1 teacher "active participation", 1 teacher "building self-confidence" and 1 teacher "solving adaptation problems".

It is understood that educational software is most helpful in solving the problems encountered during sound teaching. At this point, it is thought that it facilitates teaching in a supportive way for teachers.

*"As I just said, I can show through these programs which letter is written in which line range. We can immediately reflect those notebook lines on the board. For example, we will write the "a" sound. The program shows again and again how to write it at what intervals. In addition, we can show which images have these letters in their names. It makes our work easier in the stage of making the sound feel. It makes it easier for the child to grasp the sound. When I am working in Bingöl, I am going to tell the kids about oranges, soil ploughing and tractor. The kids have never seen any of this. They only have sheep in their lives. Now how will you describe the orange, the tractor to these kids? Would it be better to just show a picture of this, or if we open the software, if someone runs a tractor there and ploughs a field and grows oranges, which one is permanent? Of course, that three-dimensional image becomes more memorable."* (T5)

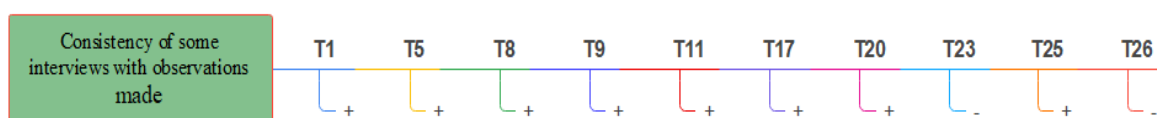


**Figure 6. Recommendations on the use of educational software**

When the results of the analysis were examined, 24 of the teachers have suggested that they correct some of the deficiencies regarding the use of educational software in teaching initial reading and writing. Two of the teachers did not make any suggestions regarding the use of these software.

Teachers who made suggestions regarding the use of educational software used in teaching initial reading and writing process suggested that, 19 teachers "content enrichment", 7 teachers "being free of charge", 6 teachers "increasing the amount of them", 2 teachers "informing teachers", 2 teachers "infrastructure development", 2 teachers made suggestions on "differentiation of expressions" and 1 teacher "simplification of interfaces". The majority of teachers stated that software is sometimes insufficient in terms of content and that studies should be carried out to enrich the content.

*"We are upset that some software is paid. It should not be paid. Also, these software are limited. The amount of these software should be increased and the contents should be improved."* (T20)



**Figure 7. The compatibility of some teachers' views with the data obtained from the observation in the classroom environment**

As a result of the observations, it was determined that the answers given by T23 and T26 during the interviews did not match with their practices in the course. T1, T5, T8, T9, T11, T17, T20, and T25 were observed to overlap with their answers given in the course. Examples of observation notes:

*"It was observed that T11 left planning initial reading and writing teaching process to educational software. From time to time, however, the process has continued with his own activities. The process started with the efforts to make the sound of the software he used. T11 used the software from time to time during the process. He used some of the activities in software when appropriate. Occasionally, he continued the process in his own methods. T11 was quite successful at using educational software. It was possible to understand from the reactions of the students that he used the educational software in the departments for their purpose. T11 had some of the students do the applications in the software, though not all. However, there was no full participation. The students were very excited when the animations in the software were opened. Their interest in software was evident from their behavior."*

*“T23 stated that she made the planning herself. However, no material was observed that she did the planning. She mainly followed the planning of educational software. T23 started the lesson directly using software. She followed all the steps in educational software. T23 effectively used educational software. She was quite knowledgeable about using educational software. It could be observed with the feedback given by the students that she did all the activities of the sound she was teaching correctly and effectively. During the period of observation, training was carried out continuously with the activities of the software. T23 enabled her students to participate actively in the lesson throughout the process. Students did all of the practical activities. The students became very happy when the educational software was opened and they competed with each other to do activities throughout the lesson.”*

## **DISCUSSION, CONCLUSION AND SUGGESTIONS**

At the point of planning initial reading and writing teaching process, interviewed teachers were grouped as those who use software actively in the process, those who use software from time to time in planning, and those who leave planning completely to software. As a result of the interviews, a majority of the teachers who have been grouped at the planning point of initial reading and writing teaching process, have been teachers who used software from time to time in planning. As Dwyer (2007) & Becker (1998) stated, most of the computer programs that elementary school teachers recommended to use for practice and application activities are open-ended and exploratory writing programs. In the study by Macaruso, Hook & McCabe (2006) and Macaruso & Walker (2008), significant improvements were made in reading skills in systematic computer assisted education used for students in kindergarten and elementary classes. Bauer & Kenton (2005), however, found that most teachers are familiar with computers, but did not use them in teaching applications or were using computers needlessly in the normal curriculum.

Teachers who evaluate the educational software used in teaching initial reading and writing process for the students stated that these programs benefit from embodying teaching, making difference in the activities, minimizing individual differences between students, attracting the students' attention to the lesson, giving the students the opportunity to apply what has been learned, addressing many different senses of students, motivating and supporting students. Teachers who evaluated the software used in the process for students stated that the software had lost its effect on students when it is used incorrectly. However, they generally stated that software has no negative aspect. McKenna & Watkins (1996) suggested that software used in the study increased students' interest in reading and improved their vocabulary positively. Yıldız (2009) in her study examined the effectiveness of multimedia applications, it was determined that the students of the experimental group read faster than the control group students and were more successful. As a result of the study conducted by Atalay and Anagün (2014), it was determined that information and communication technologies make it easier to attract students' interest and motivate them in the lesson, and also increase the success by addressing more than one sense of students. Similarly, Vilaseca (2013) revealed that computer software has positively affected children's reading and writing skills. In a study conducted by Gambrell, Morrow & Pennington (2000), initial reading and writing teaching process was conducted more fun by using CDs, animations, powerpoint presentations and web software developed for teaching initial reading and writing, making it easier for students who have difficulties in the process without time and space limitations. The results of the study conducted by Turunen (2019) showed that the use of computer assisted education method enriched children's reading and writing experiences. In the study conducted by Sinatra, Beaudry, Pizzo & Geisert, (1994), students were divided into two groups in which traditional methods were used and computers were used in the process. The findings suggest that the group in which the computer is used is more successful in writing skills than the group in which traditional methods are used. In the study conducted by Ponce, Mayer & Lopez (2013), students in the process were divided into two groups as the computer-based teaching method group and the traditional teaching method group. The research results showed that students in the computer-based teaching group improved their reading and writing skills more than students in traditional teaching group. In a study conducted by Bouck, Meyer, Satsangi, Savage & Hunley (2015), they concluded that computer-

based technology that can be used in the literacy process will facilitate learning for disabled students who have problems with the writing process. Research conducted by Ismail, Al-Awidi & Almekhlafi (2012) revealed that technology can play a crucial role in helping students learn reading and writing skills. These findings from the researches coincide with the findings of the study. However, Rouse & Krueger (2003) performed the reading and writing process through the computer program in their study. While the use of the computer program can improve some aspects of students' language skills, it is not observed that these skills turn into reading skills. This result does not coincide with the results of the study.

Teachers who evaluate the educational software used in teaching initial reading and writing process for themselves stated these software enable embodying teaching, shortens the time to attract students' attention, is often supportive, saves time, makes planning and classroom management easier for them. Teachers generally stated that software used in teaching initial first reading and writing process does not have any negative aspect, but sometimes misuse causes problems. At the same time, it was determined that educational software provided great benefits to teachers in the process and helped to solve problems encountered in teaching initial reading and writing process. Again, it has been observed that these software generally do not cause any negative problems for students and teachers. This is in line with the results of Orhan's (2007) research and the fact that technology is essential in teaching initial reading and writing process. The research conducted by Ismail, Al-Awidi & Almekhlafi (2012) showed that technology has helped teachers in connecting with students. In the study conducted by Wade-Stein & Kintsch (2004), educational software based on semantic analysis was developed to improve the writing skills of 6th grade students. In this developed software, students had the opportunity to receive instant feedback while practicing writing. Thus, software provided students with extensive writing practices without increasing the teacher's workload.

It has been determined that educational software used in teaching initial reading and writing process is motivating and attractive for teachers and students, facilitating teachers' work and classroom management, making teaching tangible, ensuring students' active participation in the lesson and minimizing individual differences. These results are consistent with the study conducted by Reitsma & Wesselling (1998) that computer technology supports both teachers and students. Kablan's (2001) study is also in line with the results that presentations prepared with the powerpoint program can be used to increase the effectiveness of teaching initial reading and writing process, and that these activities are motivating and attractive for students. As a result of the research conducted by Eser (2015) has found that using technological tools in the classroom environment in educational processes makes the work of teachers easier. In the study conducted by Dietz, Ball & Griffith (2016), web-based educational software was used in training of individuals with aphasia (language disorder) who had problems in reading comprehension, and progress was made in understanding what they read. This result directly matches the results of the study.

Teachers who participated in the interview stated that the software used in teaching initial reading and writing process was effective in solving the problems that occurred during the process. They stated that it solves the problems encountered especially in the letter teaching process and facilitates the teaching. They also stated that it eliminated the problems experienced in attracting students' attention, made it easier to make a difference in teaching and shortened the time to motivate students. Below are some of the relevant studies. The results obtained from these studies support the results of the study. However, in the study conducted by Ertem (2010), it cannot be said that the students in the experimental group were more successful than the control group students in terms of reading comprehension scores. In addition, Bay (2009) has concluded that students who use computers are more successful in understanding what they read than students who do not use computers. Çatak (2006) stated in the results of her study that the words and sentences in the texts prepared by focusing on the visuals are more easily embodied by the students and this provides ease in understanding what they read. The activities prepared with the powerpoint program were more attention-grabbing and therefore it was thought that the active participation of the students increased positively. As a result of

the study, it was determined that there was an improvement in students' reading and reading comprehension skills.

The teachers who participated in the interview stated that the educational software used in teaching initial reading and writing process had some deficiencies at some points. The teachers made suggestions for this. The missing and most suggestive point was that the content of the software should be enriched. At the same time, teachers stated that the number of software should be increased and should be free for everyone. In the study conducted by Williams, Boone & Kingsley (2004), it was emphasized that the prices of the software should be appropriate and its content should be relevant for the purposes.

The observations indicated that the answers given by majority of the teachers coincided with their practices in the lesson. Similarly, Ihmeideh (2009) concluded that pre-school teachers' beliefs about the use of computer technology are consistent with their perceptions of teaching practices.

Suggestions for the study are as follows:

- In order to use these educational software in teaching initial reading and writing process and in the teaching process of all other courses, studies can be made to eliminate the deficiencies in the technological infrastructure of schools.
- The number of software can be increased and the content of existing software can be enriched.
- These software can be provided free of charge in order to offer equal training opportunities to all.
- The interfaces can be simplified in order to ensure easy use of educational software and the quick access to the content, which is prepared for use in teaching processes.
- Teachers may be briefed on these software in order to use the educational software used in teaching initial reading and writing process effectively.
- New studies can be designed as experimental studies.
- The effectiveness of these software in different lessons can be investigated through new studies.

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