

# Termination of the teaching of the Continuous Cursive Handwriting in Schools

Pervin Oya Taneri, Nalan Akduman

Dr.Sc. Pervin OYA TANERI, Nalan AKDUMAN

## Abstract

Handwriting is a skill that is a requirement for all individuals, however, there is a deep and decisive debate about whether or not the cursive handwriting is necessary in this era of technological innovations. While the necessity of compulsory cursive handwriting education is generally addressed by educators and politicians, there is no consensus on it, and the opinions of the people with interest or concern in education (e.g. teachers, students and parents) are not so often asked. For this reason, the aim of this study is to reveal the views of teachers, students and parents on the cursive handwriting education. 57 classroom teachers, 230 primary school fourth grade students and 14 parents participated in the study from four public primary schools in Ankara. Data were collected using 'Personal Information Form', 'Cursive Handwriting Education Attitude Scale', 'Parent Questionnaire' and 'Student Questionnaire'. Quantitative data were analyzed using descriptive statistics techniques and qualitative data were analyzed by content analysis. According to the findings of the study, teachers and parents are not satisfied with the use of cursive handwriting. While teachers indicated that they would prefer print letters instruction if they had given a chance to choose. Parents affirmed that they could not give support to their children during their writing education. On

[www.dx.doi.org/10.21113/iir.v8i1.391](http://www.dx.doi.org/10.21113/iir.v8i1.391)

the other hand, most of the students stated that they had difficulty in reading even their own handwritings, although most of them declared that they like to write with the cursive handwriting.

**Key words:** Continuous cursive handwriting; Inclined lettering; Vertical lettering; Handwriting attitude; Writing instruction; Parental opinion; Print letters;

## **1. Introduction**

The handwriting skill is a requirement for all individuals so that they can generate the necessary symbols and signs to express themselves, to communicate and to record their thoughts (Akyol, 2005; Erhardt & Meade, 2005). Many people are unaware of the complicated muscle and neural processes that are involved in writing process, although they use handwriting almost every day. Handwriting can affect both academic achievement and psychological status of students who have unstable, illiterate or bad handwriting. Since writing is a communication process that mediates the transfer of produced ideas to others, the formal qualities of writing become important in terms of clear and comprehensible thinking.

Illegible writing and typographically incorrect writings harm the communication process. In this respect, in the first years of primary school it is intended to develop a functional and eligible handwriting skills (Yıldız & Ateş, 2010).

On the other hand, whether or not keyboard use is a necessary skill for the hand of today's children is still an important debate. Now, 100 percent of documents are not written in electronic environment or keyboard. Even though computers are so prevalent in our lives, there is still no paperless society in the world. Of course, it is still necessary and useful to teach fast, appropriate and legible types of handwriting skills in order to record individual thoughts. Nonetheless the extensive use of computers, educators and health specialists indicate that readable handwriting will continue to be a vital life skill with more emphasis (Feder & Majnemer, 2007). However, it seems that the importance of creativity, initiative and problem-solving skills in the hierarchy of important skills of the 21<sup>st</sup> century is much more important than learning how to write by hand.

## 2. Literature Review

### 2.1. Handwriting and Academic Success Relation

Handwriting is not just about fine motor skills; it is a combination of complex visual-perceptual-motor skills. Writing legible handwriting requires visual perception, motor planning, tactile and kinesthetic functions, fine and gross motor skills, perception, memory and long-term attention (Bonney, 1992; Erhardt & Meade, 2005; Feder & Majnemer, 2007; Haas & Rees, 2010; Rosenblum, Weiss & Parush, 2003; Shams & Kim, 2010). In other words, learning to write, involving both motor skills and critical thinking skills, requires a certain level of readiness. Handwriting skills such as keeping the pencil properly, not shifting the paper or notebook, ensuring hand and eye coordination, applying adequate pressure on the paper develops depending on the individual's level of development and the frequency of exercises (i.e. their training). Adequate, good or readable handwriting is seen as a sign of academic success (Feder & Majnemer, 2007; Volman, van Schendel, & Jongmans, 2006) as well as one of the important academic skills that must be acquired to reach the educational goals of the primary school. Bad handwriting or dysgraphia (Karlsdottir & Stefansson, 2002) can be seen in children with fine motor difficulties. In addition, children with impaired writing tend to show lower success in mathematics, lower verbal IQ, and more attention deficits (Sandler et al., 1992). In the same way, Oche (2014) maintained that poor handwriting affects students' general accomplishment in school mathematics.

Slow-writing children may have difficulties when they handle some school-based activities and to complete tasks with time constraints (e.g. examinations and dictation exercises). Handwriting can affect both academic achievement and psychological status of students who have unstable, illegible or bad handwriting (Erhardt & Meade, 2005; Feder & Majnemer, 2007; Graham & Harris, 2000; Hammerschmidt & Sudsawad, 2004; Rosenblum, Weiss & Parush, 2003). Unreadable handwriting prevents the development of high-level skills such as correct spelling and story writing (Feder & Majnemer, 2007), and has negative effects on learning. In addition, bad handwriting also causes the teachers to make decisions against the student when assessing their homework (Karlsdottir & Stefansson, 2002; Markham, 1999). No matter how good the content is, the assignments written with illegible handwritings are rated lower (Markham, 1999). Handwriting smoothness and fluency is related to the compositional

aspects of narrative writing and must be considered in a comprehensive evaluation of the written expression. In other words, individuals with a fluent handwriting have more attention to planning and composition. On the other hand, individuals with bad handwriting skills are more unsuccessful in planning and composition (McCutchen, 2006; Peverly, 2006).

## **2.2. Handwriting Education in the World**

In many countries, there is a debate about the necessity and reason for the adjoining cursive handwriting education. Since 2010, the United States has adopted a Training Initiative aimed at setting national curricula according to national standards. According to this initiative, compulsory handwriting instruction is not included in the curricula. In a study conducted by Really Good Stuff Inc. with 612 elementary school teachers, many teachers (41%) indicate that they will not include cursive writing teaching in their curricula henceforth (Wasserman, 2013).

A similar process took place in German schools. The teaching of joining cursive writing skills, which children are expected to gain by finishing elementary school, has been seen as a waste of time by teachers. Teachers also indicate that the joining cursive handwriting is generally illegible. The National Association of Primary School Teachers has launched a campaign to remove mandatory teaching of handwriting (*die Schreibschrift*). Ulrich Hecker, who is the deputy chairperson of the national primary school teachers' association, wants the "basic font" newly introduced by the Hamburg State and seen as a very radical step lately, to be used by other states. This font is an easier-to-use alphabet that includes all the ways that children can write their first letters in full and fluent from childhood to adulthood. Researchers argue that having to learn two different fonts consecutively will interrupt the learning process. Simple handwriting will give the teachers more time to support the children. On the other hand, those against this new font indicate that the joining handwriting is a cultural technique used to develop fine motor skills in an aesthetic sense, too quickly to transfer ideas into the paper, and to develop thought strategies and vocabulary (van de Geyn, 2014) and that the adoption of basic easy fonts in Germany would simplify their thoughts (The guardian, 2011).

Prior to 2006 in Ontario, Canada, only the third and fourth grade programs have the curved handwriting instruction. Government decision-

making bodies in Ontario and Quebec have drawn cursive handwriting from the educational programs of 45 states' schools. Quebec's education ministry has stated that primary school children can choose the way they want to express their ideas when doing homework. It is not compulsory for children to know how to write with handwriting. Only the ministries of education in Saskatchewan and Prince Edward Island have stated that there is no plan to remove compulsory handwriting education (van de Geyn, 2014).

A study at the University of Washington in Seattle has shown that children in 2<sup>nd</sup>, 4<sup>th</sup>, and 6<sup>th</sup> grades who are taught to write by hand instead of typing by keyboard use faster typing and more ideas than when they were using the keyboard. Similarly, studies using functional magnetic resonance imaging at the University of Indiana have shown that when a handwriting is used, the brain performs better than simply looking at the characters on the computer screen. Creating a composition on paper helps memory and recollection and increases creativity (van de Geyn, 2014; Turan & Akpınar, 2008).

### **2.3. Developmental Stages of Handwriting in Children**

According to the researches, 30-60% of pre-school and primary school children spend 30-60% of their time at school with kinesthetic or fine motor activities, most often with writing (Marr, Cermak, Cohn & Henderson, 2003; McHale & Cermak, 1992). Handwriting, as a multifaceted perceptual-motor skill, is dependent on the development and integration of the individual's cognitive, perceptual and motor skill (Feder & Majnemer, 2007; Hamstra-Bletz & Blote, 1993). It is developed through teaching, nevertheless, until the beginning of secondary school, most students do not have sufficient and self-reliant hand writing skills. Surveys on handwriting show that handwriting skills of students reach the highest levels in the fourth grade of primary school (Graham, Berninger, Weintraup & Schaefer, 1998). Students at age ten can access a calligraphic standard while gently writing circular handwriting. However, many students in secondary schools still have to return to plain writing. During handwriting teaching, students should be given the opportunity to move along the line, so it is not only necessary but also necessary to allow removal of the end of the word from the writing surface while long words are written. If children are constantly being trained to write joining curves, it is not only difficult to

change the movement, but it is also difficult to place the letters when they stop to lift their hands from the paper (Sassoon 2003).

If readability of their letters, words, and numerals decreases, when children begin to join letters, there may be a deficiency related to writing instruction. Fine motor skills do not only involve the use of small muscles in the hand, but also harmonize eye and hand movements, also known as hand-eye coordination. Fine motor skills become increasingly important when children have time to learn handwriting. It is important that the child's physical stance and understanding of the pen is. A child should place the writing tool in his hand and hold the paper properly.

The studies following the development of a handwriting of a child during development showed that children's handwriting qualities grew rapidly in the first class (generally between the ages of 6 and 7) and in the second class (between the ages of 7 and 8) it reaches a steady level of success. The third grade (8-9 years of age) it develops even further; the handwriting is automatically arranged and found as a tool to facilitate the development of ideas. The speed of writing develops linearly throughout primary school and the general development of handwriting continues in the middle school period (Feder & Majnemer, 2007).

Therefore, the best time for children to learn curved and joining handwriting is when they write all letters fluent, legible, and fast. When a child learns to form recognizable letters, and the letters are consistent and appropriately sized, and the letters are positioned appropriately in line spacing and in relation to each other, the pain in his wrists and fingers is reduced and the letters begin to merge. The handwriting is thus legible and easily readable by others.

Conversely, in some countries, contiguous handwriting training began at very early ages, even in the first year of primary school. This situation may increase the likelihood to fail in gaining handwriting skills of students who are not mature enough to learn writing skills. The fine motor skills include the use of small muscles in the body that provide functions such as writing a handwriting, recognizing small objects (e.g. throwing money at a piggy bank) and folding clothes. The weakness of the fine motor skills can adversely affect the child's self-care skills such as legible writing, eating, using a computer, turning pages of a book and knotting the buttons of a shirt or turning a zipper on and off. The problems that individuals experience in handwriting in their first years of primary education are indicators of difficulty in later learning experiences (Harvey and

Henderson, 1997; McCarney et al., 2013). One of the most important of the affective acquisitions of writing is the attitude towards writing. Researches that maintained that teachers' attitudes towards handwriting influence their classroom performance significantly (Grossman et al., 2000; Kennedy, 1998; Street 2003; Oche, 2014) assert that teacher candidates who have a positive attitude towards writing are taught to write more effectively in their teaching experiences (Chambless & Bass, 1995; Street, 2002; Street, 2003). However, teacher training programs do not give much importance to handwriting instruction. Candidate teachers are inadequately trained in handwriting teaching and have misconceptions about the development of writing skills (Graham et al., 2008). When the relevant literature was examined, it was seen that researches on the continuous cursive handwriting were conducted only with teachers and educators (Susar-Kırmızı & Kasap, 2013). For this reason, the aim of this study is to determine what teachers, parents, and fourth grade students in primary school are interested in on the adjoining cursive handwriting training. In order to achieve this purpose, the answers to the following research questions are sought:

1. How are the teachers' attitudes towards the continuous cursive handwriting?
2. Which method do teachers and parents prefer to use in teaching writing?
3. Which type of writing style do the students prefer to use when writing?
4. What type of writing do the students write better?

### **3. Methodology**

In this study, a survey method of descriptive research methods was used in order to reveal the views of the contiguous cursive handwriting education.

#### **3.1. Participants**

From 4 different public schools, 57 classroom teachers, 231 primary school fourth grade students, and 14 parents participated in this study. 72 percent of the teachers are women, and 28 percent are male. All the parents are females. Table 1 shows the gender distribution of participants of the study.

**Table 1:** Distribution of Participants by Gender

| Gender  | f   | %     |
|---------|-----|-------|
| Student |     |       |
| Girl    | 132 | 57.1  |
| Boy     | 99  | 42.9  |
| Total   | 231 | 100.0 |
| Teacher |     |       |
| Female  | 41  | 71.9  |
| Male    | 16  | 28.1  |
| Total   | 57  | 100.0 |
| Parent  |     |       |
| Female  | 14  | 100.0 |
| Male    | -   | -     |
| Total   | 14  | 100.0 |

**Source:** Authors' own work

The ages of the teachers who participated in the research ranged from 28 to 54, the average age was 39. Most of the teachers (87.7%) have completed their bachelor 's degree and 12.3% completed master' s education. Only 36.8% (n = 21) of the participants were graduated from regular classroom teaching, the rest were assigned to with alternative certificate of classroom teaching. 61.8% of teachers graduated before 2000. The distribution of teachers in terms of their professional seniority is as follows; 3.5% of the teachers has been working as a teacher for 1-5 years, 14.1% for 6-10 years, 24.5% for 11-15 years, 47.3% for 16-20 years and 8.9% for more than 21 years. According to the number of students in the classroom; 21.4% of the teachers have 17-25 students, 48.3% of the teachers have 26-35 students, and 30.4% of the teachers have 36-45 students.

The parents' ages range from 27 to 59, with an average age of 37. Parent education levels are respectively; 35.7% primary school, 7.1% secondary school, 28.6% high school, 21.4% university and 7.1% graduate education. 71.4% of the parents were housewives, while the rest were working (21.4%).

### 3.2. Data Collection Process

Data for this study were obtained from four public primary schools in the second semester of 2014-2015 academic year. The data were collected using



the 'Personal Information Form', 'Cursive Handwriting Education Attitude Scale for Teachers', 'Parent Questionnaire' and 'Student Questionnaire'.

### **3.2.1. Personal Information Form**

In the 'Personal Information Form', there are 8 questions that question the demographic information of the teachers such as gender, age, education level, graduated department and two open-ended questions about which method they prefer to use in teaching texts.

### **3.2.2. Cursive Handwriting Education Attitude Scale for Teachers**

Cursive Handwriting Education Attitude Scale for Teachers ' is a five-point Likert-type scale consisting of 22 items scored from 1 to 5, which I strongly disagree (1) and strongly agree (5). In order to prevent the participants from giving the same positive / negative responses without reading all the materials, the positive and negative items are mixed and the items are listed randomly. Negative items (2, 7, 8, 12, 13, 14 and 19 items) were reversed. An exploratory factor analysis was conducted to test the validity of the structure of the scale. Before the exploratory factor analysis, it was found that the Kaiser-Meyer-Olkin (KMO) test and the Bartlett test ( $p < .05$ ) were used to determine the suitability of sample size for factoring. These findings indicate that sample size is appropriate for factor analysis (Field, 2013, Hinton, McMurray & Brownlow, 2014, Pett, Lackey & Sullivan, 2003). Subsequently, item-test correlations of the 22-item scale were calculated and 6 items under the item-test correlation coefficient of 0.30 were omitted. For the factor load value, the lower cut-off point was determined as 0.40 and the items below this value were subtracted from the scale. Factor analysis was applied to the scale falling to 16 items after the items were removed. Varimax rotation technique was used in factor analysis. According to the result of the explanatory factor analysis, there are 3 factors which are more than the eigenvalue 1. The contribution of the first factor to the common variance was 53.892%, while the contribution of the second and third factor was % .8.021 and 7.178% respectively. The contribution of the three determined factors to total variance is .69.092%. This ratio is sufficient for multi-factorial patterns (Hinton et al., 2014, Hutcheson & Nick, 1999, Fabrigar, Wegener, MacCallum & Strahan 1999). Factor deduction obtained as a result of analysis, factor loadings of the items are given in Table 2. The Cronbach Alpha value of your scale was calculated as 0.93. The lowest and highest scores that can be taken from the

scale are 16-80. The high scores on the scale show the positive attitudes of the teachers towards the teaching of the continuous cursive handwriting.

**Table 2:** Factors explained by exploratory factor analysis

| <i>Items</i> | <i>Factor loads</i> |          |          |
|--------------|---------------------|----------|----------|
|              | Factor 1            | Factor 2 | Factor 3 |
| Item 21      | .805                |          |          |
| Item 16      | .789                |          |          |
| Item 20      | .749                |          |          |
| Item 11      | .670                |          |          |
| Item 17      | .639                |          |          |
| Item 18      | .611                |          |          |
| Item 1       |                     | .781     |          |
| Item 3       |                     | .738     |          |
| Item 6       |                     | .709     |          |
|              |                     |          |          |
| Item 5       |                     | .706     |          |
| Item 15      |                     | .644     |          |
| Item 12      |                     |          | .809     |
| Item 8       |                     |          | .781     |
| Item 13      |                     |          | .697     |
| Item 7       |                     |          | .598     |
| Item 19      |                     |          | .577     |

**Source:** Authors' own work

### 3.2.3. Parent Questionnaire

In the parents' questionnaire, there are 4 questions about demographic information such as gender, age, education level, and 8 open-ended questions about the problems encountered in children's handwriting education.

### 3.2.4. Student Questionnaire

In the Student Questionnaire, there are 10 questions aiming to reveal the opinions of the students about the adjacent oblique handwriting. Students are also asked to write the same text in both print letters and continuous cursive handwriting to determine which type of writing the students use better. The handwritings of the students were evaluated by two researchers as very good (1), good (2) and poor (3), and these evaluations were compared.

### **3.2.5. Data analysis**

Quantitative data were analyzed using descriptive statistics using the SPSS 22.0 program. The qualitative data were analyzed by content analysis method.

## **4. Results and Discussions**

The findings of this research which aimed to determine the thoughts of teachers, parents, and fourth grade students in the adjoining oblique handwriting training are explained below according to the research questions respectively:

### **4.1. How are the teachers' attitudes towards the continuous cursive handwriting?**

The lowest and highest scores from the scale were calculated as 16-75. The mean score was 33.02 and the standard deviation was 11.76. The scores on the scale show that teachers' attitudes towards the inclined handwriting training are negative. Points that can be taken from each item in the measure are in the range 1-5. Table 3 shows the mean and standard deviations of each item.

More than half of the teachers stated that the most positive aspect of the cursive handwriting is that it helps children with learning disabilities such as dyslexia (51%, n = 29). 64.9% of the teachers think that the cursive handwriting allows the students to develop mental skills (thinking, understanding, sorting, interrogating, classifying, establishing relationships, analyzing, synthesizing and evaluating).

**Table 3:** Distribution of mean and standard deviations of the items of scale

| Items  | X    | SD    | Strongly agree & Agree |      | Neither agree nor disagree |      | Disagree & Strongly disagree |      |
|--|------|-------|------------------------|------|----------------------------|------|------------------------------|------|
|  |      |       | f                      | %    | f                          | %    | f                            | %    |
| Cursive handwriting provides the development of aesthetic sense in students.   | 2.56 | 1.268 | 18                     | 31.6 | 7                          | 12.3 | 32                           | 56.1 |
| Cursive handwriting helps children with learning disabilities such as dyslexia.  | 2.39 | 0.908 | 4                      | 7    | 23                         | 40.4 | 29                           | 50.9 |
| Cursive handwriting enables students to develop their mental skills (thinking, understanding, ranking, questioning, classification, relationship building, analysis-synthesis and evaluation). | 2.28 | 1.031 | 7                      | 12.3 | 13                         | 22.8 | 37                           | 64.9 |
| Cursive handwriting is one of the skills required by the 21st century.   | 2.25 | 1.258 | 14                     | 24.6 | 5                          | 8.8  | 38                           | 66.7 |
| Cursive handwriting is written without raising hands thus allow students to think without interruption.  | 2.18 | 1.088 | 7                      | 12.3 | 9                          | 15.8 | 41                           | 71.9 |
| I like teaching cursive handwriting  | 2.16 | 1.251 | 10                     | 17.5 | 4                          | 7    | 43                           | 75.4 |
| Students who can successfully write cursive handwriting can think faster.  | 2.14 | 0.99  | 6                      | 10.5 | 11                         | 19.3 | 40                           | 70.2 |
| Cursive handwriting helps students improve their decision-making skills.   | 2.11 | 0.939 | 7                      | 12.3 | 7                          | 12.3 | 43                           | 75.4 |

|   |      |       |   |      |   |      |    |      |
|---|------|-------|---|------|---|------|----|------|
| Cursive handwriting does not cause students to hate writing.  | 2.07 | 1.067 | 8 | 14   | 4 | 7    | 45 | 78.9 |
| Cursive handwriting helps students develop skills such as correct, effective and beautiful use of Turkish language. | 2.05 | 0.971 | 7 | 12.3 | 4 | 7    | 46 | 80.7 |
| Cursive handwriting contributes to the development of problem solving skills.                                       | 1.98 | 0.935 | 5 | 8.8  | 9 | 15.8 | 43 | 75.4 |
| Cursive handwriting encourages the maintenance of lifelong learning   | 1.91 | 0.912 | 3 | 5.3  | 9 | 15.8 | 45 | 78.9 |
| Cursive handwriting enhances the communication skills of students.  | 1.88 | 0.758 | 1 | 1.8  | 7 | 12.3 | 49 | 86   |
| Cursive handwriting is a necessary skill for our children.  | 1.84 | 1.115 | 7 | 12.3 | 1 | 1.8  | 49 | 86   |
| Cursive handwriting should continue to be taught in schools.  | 1.77 | 1.118 | 6 | 10.5 | 3 | 5.3  | 48 | 84.2 |
| Writing with cursive handwriting is easier than to write print lettering.   | 1.58 | 0.68  | 1 | 1.8  | 3 | 5.3  | 53 | 93   |

**Source:** Authors' own work

More than half of the teachers stated that the most positive aspect of the cursive handwriting is that it helps children with learning disabilities such as dyslexia (51%,  $n = 29$ ). 64.9% of the teachers think that the cursive handwriting allows the students to develop mental skills (thinking, understanding, sorting, interrogating, classifying, establishing relationships, analyzing, synthesizing and evaluating).

#### 4.2. Which method do teachers and parents prefer to use in teaching writing?

91.1% of the teachers stated that they preferred to use print lettering instruction instead of cursive handwriting. Among the reasons for choosing print lettering the most commons are as follows: students can write effortlessly, fast and readable with the print letters, they can learn the grammar rules clearly. In addition, reading the handwriting of students with print letters is easier than to read their cursive handwriting. Besides, print letters are used more frequently in daily life. Here are some of the teachers' views:

*"Students cannot gain grammar rules with cursive handwriting. With the print letter, the students' notebooks are more organized. Students cannot read even their own writings with cursive lettering."* (Male, Teacher, #9).

*"Cursive handwriting is illegible and is not suitable for students' hand muscles. When writing a letter, the child goes on the same line several times. They forgot to put the dots of the letters."* (Male, Teacher, #20).

*"I think children who write print letter are more legible. The cursive handwriting is a situation that requires certain skills. I think most learners cannot improve this ability."* (Female, Teacher, # 40).

*"In the first place, students write according to the rules, but then they choose the font they easily write. Thus, their handwriting become irregular and unreadable. In the 2<sup>nd</sup> and 3<sup>rd</sup> grades, the teachers try to correct the writing mistakes instead of teaching the grammar and punctuation."* (Female, Teacher, # 54).

Only two of the teachers (n = 5) who preferred cursive handwriting instruction explained their views:

*'I find the cursive handwriting more aesthetic'* (Female, Teacher, # 25).

*'Students learn cursive handwriting is easy'* (Male, Teacher, # 28).

Likewise, 85.7% of parents, who were asked to choose between cursive handwriting and print letter, prefer their child to write with print lettering. 71.4% (n = 10) of the parents did not like the cursive handwriting of the children. Furthermore, 43% of the parents said they do not know how to write cursive handwriting, only 36% of parents know it. Whilst the majority of parents (64%) said that their child needs help in handwriting, only 43% of the parents think that they helped their child to learn cursive

handwriting. The proportion of those parents who have another child who learnt writing skills with print lettering is 43%. Only 35.6% of the parents said that they could read the handwriting of their child easily. Only 78.4% (n = 11) of the parents stated that their children had difficulty in learning to write, while only 21.4% (n = 3) reported they had no problems. The following excerpts illustrate the problems parents face as children learn to write:

*"(My child) was struggling to write and wrote ugly. He could not turn his fingers; he did not want to write." (Parent #1)*

*"...we had problems in the beginning, then she gets used to. She lifted her hand quickly, the writing remained incomplete." (Parent #6)*

*"Since my son is hyperactive, we used to have insanity with his handwriting. His writing was horrible. It is still so." (Parent #8)*

*"(My child) was very bored. The cursive handwriting of her was very bad. We were constantly erasing what she wrote. She had not wanted to write. Her handwriting is still very ugly." (Parent #9)*

*"We were doing homework every evening. My child was unwilling and tired. Learning to write first group of letters (e, l, a, t) were easy, but when they begin to learn the letters like f, k, g, it became frustrated. child's impatience with writing names like 'Ela', 'Lale' and 'Ata' as well as some phrases like 'el ele' (hand in hand) several times was deteriorating. Teachers use the same phrases and names too often. My child chosen to write with print letter voluntarily. The school did not force my child to use cursive lettering." (Parent #12).*

#### **4.3. Which type of writing style do the students prefer to use when writing?**

67.5 percent of the students who participated in the survey stated that the handwritings in the fourth grade were smoother than the handwritings in the first grade. When students asked whether they like to use 'cursive handwriting' or not? only 47.2 answered as 'yes', 24% answered as 'little' and 29% answered as 'no'. On the other hand, half of the students (57.1%) preferred to write with print letter, 25.5% liked print letter and 17% did not like print letter. When they asked, which font was nicer than the other, 55% of the students chose cursive handwriting. However, when asked what type of writing they preferred to write, 51% of the students selected print lettering.

While 10% of the students stated that they could not read their friends' cursive handwriting at all, 53% said they had difficulty reading it, only 37.1% said it was easy to read. 5.2% of the students have difficulty reading their own writing. According to the students, the most difficult lessons in writing with cursive handwriting are English (61%), mathematics (11,2%), Turkish (9%) and science-social sciences courses (6%).

#### **4.4. What type of writing do the students write better?**

To answer the question, students are asked to write the same text in both print letters and cursive handwriting. Firstly, those handwritings were evaluated by two researchers as very good (1), good (2) and poor (3). Then, these evaluations were compared. According to the evaluation results, with print letter 14.3% of the students' handwriting were very good (n = 33), 48.7% were good (n = 122). Conversely, with cursive handwriting 36% were bad (n = 83), only 11% (N = 25), 45.6% were good (n = 105) and 43% were poor (n = 98).

### **5. Conclusion and Recommendations**

This research attempted to reveal the thoughts of teachers, parents and students on the subject of cursive handwriting education. According to the results of the research, the teachers find it difficult to teach the curved handwriting and they prefer to use print lettering instruction. To the teachers, continuous cursive handwriting is a process that requires compulsion and patience. On the other hand, print lettering provides faster and more legible writing of learners. Besides, to teach punctuation and grammar rules are easy with print letters.

It is much easier to read print lettering which used very often in many areas of daily life (e.g. shopping, newspapers and TV). In their study Susar-Kırmızı and Kasap (2013) stated that teachers thought that writing instruction with vertical print letter was easier than cursive handwriting teaching. In addition, students are more likely to read quickly and fluently with print letters, since they are more likely to encounter print letters in their everyday lives.

Furthermore, since learning contiguous cursive handwriting involves more complicated processes than print letters, it is difficult to learn by students who have not completed the level of readiness and who do not have hand skills. This finding overlaps with the literature: consistent with



the teachers, the degree of difficulty of the cursive handwriting is higher in terms of its mechanics. Therefore, cursive handwriting teaching is more difficult than print lettering (Berninger & Graham, 1998, Belet & Montenegro, 2007).

Parents who participated in the survey also stated that it is difficult to teach children the continuous cursive handwriting. They cannot help their children to learn cursive at home. One of the parents pointed out the difficulty in learning some letters such as f, k, g. There are also difficulties in learning some letters in Denmark. Until 1875, the "German" or "Gothic" handwriting style was widely used in Denmark, and these letters were the type of letters taught in school. Danishers also state that the letters "f", "h", and "s" are quite similar to each other and can easily be confused with each other (The Danish National Archives).

The vast majority of fourth-year students who participated in the study indicated that their current handwritings were smoother, and more readable than their handwritings in the first grade. This finding of the research supports the previous researches. Similarly, Graham et al. (1998) and Sassoon (2003) indicate that handwriting skills reach the peak when children are ten years old. In addition, many of the students stated that they were unable to read the cursive handwriting of their friends. In his study Kadioğlu (2012) also claimed that the students who write the cursive handwriting faced several problems such as the illegibility of the writing and the intertwining of the letters. It is a surprising finding that even though the students had taught to write with cursive handwriting instruction, and they used cursive handwriting for four years in each lesson, their cursive handwritings are illegible and distorted. On the other hand, they have never taught to write print letters, but their print letter writings are legible and smooth. This situation requires questioning the effectiveness of handwriting instruction given in the schools.

Based on the findings of the research, both the teachers and the parents stated that the children choose to print lettering after a while. Likewise, students also stated that they preferred to write in vertical print letters. This finding has similarities with the literature; Sassoon (2003) noted that many learners have returned to non-contiguous letters when they have to write quickly.

Teachers stated that they are aware of the positive features of the continuous cursive handwriting, but they do not prefer cursive handwriting instruction the problems experienced in teaching the spelling

of letters and in the preparation phase. Since to teach writing with basic vertical print letters is easier, many of the teachers prefer this font type. From this point, it can be concluded that teachers need support in solving the difficulties in teaching cursive handwriting. From the very beginning of the school, the adoption of a rigid educational policy on cursive handwriting from early ages can cause some child abuse. The children are ready to learn the cursive handwriting only after they have been taught how to shape and place all the letters. For this reason, it may be suggested that children not be taught to write cursive handwriting until they learn to write all the letters correctly (Sassoon 2003), until they are mature enough.

### List of References

- Akyol H. (2005), "Türkçe İlk Okuma Yazma Öğretimi", Ankara: Pegem A Yayıncılık.
- Belet D. and Karadağ R., (2007), "Ses Temelli Cümle Yönteminin Etkililiğine İlişkin Öğretmen Görüşleri" III. Sosyal Bilimler Eğitimi Kongresi. Çukurova Üniversitesi Eğitim Fakültesi, 18-20 Haziran, Adana
- Berninger V. and Graham S. (1998), "Language by Hand: A Synthesis of a Decade of Research on Handwriting" *Handwriting Review* No.12, pg. 11-25.
- Erhardt R. P. and Meade V., (2005), "Improving handwriting without teaching handwriting: The consultative clinical reasoning process". *Australian Occupational Therapy Journal*, 52, 199-210.
- Fabrigar L. R. Wegener D. T. MacCallum R. C. and Strahan E. J., (1999), "Evaluating the use of exploratory factor analysis in psychological research". *Psychological Methods*, No. 4, pg. 272-299.
- Feder K. P. and Majnemer A., (2007), "Handwriting development, competency, and intervention" *Developmental Medicine & Child Neurology*, No. 49, pg. 312-317.
- Field A. P., (2013), "Discovering Statistics using IBM SPSS Statistics." (4th Ed.). London: Sage.
- Graham S. and Harris K. R., (2000), "The role of self-regulation and transcription skills in writing and writing development" *Educational Psychologist*, No. 35, pg. 3-12.
- Graham S. Berninger V. Weintraub N. and Schafer W. (1998), "Development of Handwriting Speed and Legibility" *Journal of Educational Research*, Vol. 92, pg. 42-51.

- Graham S. Harris K. R. Mason L. Fink-Chorzempa B. Moran S. and Saddler B.i (2008) "How do primary grade teachers teach handwriting?" A national survey. *Reading and Writing: An Interdisciplinary J.* Vol. 21, No.1-2, pg. 49-69.
- Grossman P.L. Valencia S.W. Evans K. Thompson C. Martin S. and Place N., (2000), "Transitions into teaching: Learning to teach writing in teacher education and beyond" *Journal of Literacy Research*, No. 32, pg. 631-662.
- Haas B. and Rees G., (2010), "Multiple stages of cross-modal integration in visual processing: Comment on cross modal influences on visual perception" By L. Sham & R. Kim. *Physics of Life Reviews*, Vol. 7, pg. 287-288.
- Hammerschmidt S. L. and Sudsawad P., (2004), "Teachers' survey on problems with handwriting: Referral, evaluation, and outcomes." *American Journal of Occupational Therapy*, Vol. 58, pg. 185-192.
- Hamstra-Bletz L. and Blöte A.W., (1993), "A longitudinal study on dysgraphic handwriting in primary school" *Journal of Learning Disabilities*, Vol. 26, pg. 689-699.
- Harvey C. and Henderson S., (1997), "Children's handwriting in the first three years of school: Consistency over time and its relationship to academic achievement" *Handwriting Review*, No. 11, pg. 8-25.
- Hinton P. R. McMurray I. and Brownlow C., (2014), "SPSS Explained" (2nd Ed.). London: Routledge.
- Hutcheson G. and Nick S., (1999), "The multivariate social scientist: Introductory statistics using generalized linear models" Thousand Oaks, CA: Sage Publications.
- Kadioğlu H. (2012), "Bitişik Eğitim Yazıya İlişkin Öğrenci Görüşleri", *Akademik Bakış Dergisi*, 31, 1-10.
- Karlsdottir R. and Stefansson T., (2002), "Problems in developing functional handwriting" *Perceptual and Motor Skills*, No. 94, pg. 623-662.
- Kennedy M., (1998), "Learning to teach writing: Does teacher's education make a difference?" New York: Teachers College Press.
- Markham L. R. (1999), "Influences of handwriting quality on teacher evaluation of written work" *American Educational Research Journal*, Vol. 5, No.2, pg. 16-24.
- Marr D. Cermak S. Cohn E. S. and Henderson A., (2003), "Fine motor activities in head start and kindergarten classrooms. *American Journal of Occupational Therapy*, 57, 550-557.

- McCarney D. Peters L. Jackson S. Thomas M. and Kirby A., (2013), "Does poor handwriting conceal literacy potential in primary school children?" *International Journal of Disability, Development and Education*, Vol. 60, No. 2, pg. 105-118.
- McCutchen D., (2006). "Cognitive factors in the development of children's writing" In C.A. MacArthur, S. Graham, J. Fitzgerald (Eds.), *Handbook of writing research*, Gilford Press, New York, NY (2006), pp. 115-130.
- McHale K. and Cermak, S. A., (1992), "Fine motor activities in elementary school: Preliminary findings and provisional implications for children with fine motor problems. *American Journal of Occupational Therapy*, Vol. 46, 898-903.
- Oche E. S., (2014). "The Influence of Poor Handwriting on Students' Score Reliability in Mathematics" *Mathematics Education Trends and Research* Vol. 2014, pg. 1-15.
- Pett M. A. Lackey N. R, and Sullivan J. J., (2003), "Making Sense of Factor Analysis: The Use of Factor Analysis for Instrument Development in Health Care Research" *Thousand Oaks, CA: Sage*.
- Peverly S.T., (2006), "The importance of handwriting speed in adult writing" *Developmental Neuropsychology*, No. 29, pg. 197-216.
- Rosenblum S. Weiss P. L. and Parush S., (2003), "Product and process evaluation of handwriting difficulties A review. *Educational Psychology Review*, Vol. 15, pg. 41-81.
- Sandler A.D. Watson T.E. Footo M. Levine M.D. Coleman W.L. and Hooper S.R. (1992), "Neurodevelopmental study of writing disorders in middle childhood" *Journal of Developmental and Behavioral Pediatrics*, Vol.13, pg. 17-23.
- Sassoon R., (2003), "Handwriting the way to teach" *SAGE Publications*. Thousand Oaks, California.
- Shams L. and Kim R., (2010), "Bayesian priors and multisensory integration at multiple levels of visual processing: Reply to comments on Cross modal influences on visual perception". *Physics of Life Reviews*, No. 7, pg. 295-298.
- Susar-Kırmızı F. and Kasap D., (2013), "İlkokuma yazma öğretimi sürecinde bitişik eğik yazı ve dik temel harflerle yapılan eğitimin öğretmen görüşlerine göre karşılaştırılması. *International Periodical for The Languages, Literature and History of Turkish or Turkic*, Vol. 8, No. 8, pg. 1167-1186.

- The Danish National Archives. Retrieved from <https://www.sa.dk/en/genealogy/handwriting>.
- The Guardian. (2011), "German teachers campaign to simplify handwriting in schools. Retrieved July 10, 2017 from <https://www.theguardian.com/world/2011/jun/29/germany-teachers-handwriting-schools-schreibschrift>.
- Turan M. and Akpınar B., (2008), "İlköğretim Türkçe Dersi İlkokuma-Yazma Öğretiminde Kullanılan Ses Temelli Cümle ve Bitişik Eğik Yazı Yöntemlerinin Değerlendirilmesi, Fırat Üniversitesi Sosyal Bilimler Dergisi, Vol.18, No. 1, pg. 121-138.
- Van de Geyn, L. (2014), "The end of cursive writing in schools? Today's Parents. Retrieved April 23, 2017 from <http://www.todayparent.com/family/education/cursive-writing-in-schools/>
- Volman M. J. M. van Schendel B. M. and Jongmans M. J., (2006), "Handwriting difficulties in primary school children: A search for underlying mechanisms" *American Journal of Occupational Therapy*, No. 60, pg. 451-460.
- Wasserman L. (2013), "National Poll Reveals that Cursive Writing Education is in Danger" Monroe: CT. Retrieved April 25, 2017 from <http://www.reallygoodstuff.com>.
- Yıldız M. and Ateş S., (2010), "İlk Okuma Yazmayı Farklı Yöntemlerle Öğrenen İlköğretim 3. Sınıf Öğrencilerinin Yazılarının Okunaklılık ve Yazım Hataları Bakımından Karşılaştırılması" *Türkiye Sosyal Araştırmalar Dergisi*, Vol. 14, No. 1, pg. 11-30.

