

**THE ROLE OF CURSIVE WRITING  
ON THE  
CURRICULAR LANDSCAPE OF PUBLIC SCHOOLS TODAY**

by

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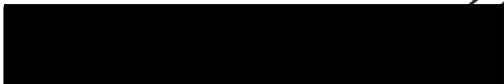
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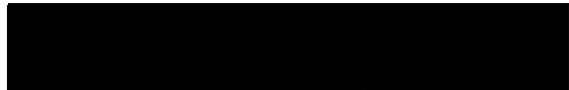
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**ABSTRACT**

The advent of the word processor has led to the slow demise of cursive writing, including the decline in time spent teaching this form of writing in public schools today. The topic of the value and role of cursive writing in the public school has been surfacing frequently in the news media and social media of the last five years. Thus a research question forms for a literacy specialist as to what is the role of cursive writing on the curricular landscape of public schools today? The most appropriate way to address this question is with empirical research using thematic analysis of a collection of news media and social media documents as found on the internet. Results of this analysis find that most of the writings occur in news venues (major online newspapers and smaller news venues online) and in the form of articles and comments on articles, with while newspaper articles more than double any non-comment genre. The second finding is that teachers and educators comprise the largest identifiable writer type, accounting for nearly 55% of known writers; parents, news reporters, and students for second place. A third finding is that the data content supportive of retaining cursive writing in schools is at least 2 to 1, meaning that support for retaining cursive writing in schools is more than double the support for removing it from school curriculum.

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## **Chapter 1: Introduction**

### **Statement of the Problem**

The advent of the word processor has led to the slow demise of cursive writing. The use of cursive writing by adults has declined and so has the amount of time spent teaching this form of writing in public schools today. Some technology-minded people may feel that the process and product of cursive writing appear to have no obvious function in today's technology-based society. Although there are a multitude of comments in the news media and social media concerning cursive writing and the role of cursive writing in education, there appears to be no common consensus. The fact that cursive writing appears to come in and out of media attention leads a reading specialist to speculate that there is a lack of shared knowledge about cursive and a lack of understanding about whether teachers should be concerned about this lack of consensus. This ambiguous position leads a reading and writing specialist to question the role of cursive writing in today's schools, and to propose the research question of what is the role of cursive writing on the curricular landscape of public schools today? The most appropriate way to address this question of the role of cursive writing is by empirical research using thematic analysis of a collection of news media and social media documents by classroom teachers and others on cursive writing.

## Background

I have decided to explore the role of cursive writing because of the current media attention it has been receiving. With the adoption of the new Common Core State Standards, cursive writing is no longer part of the state-directed school curriculum. However, states such as North Carolina and California have decided that cursive writing should remain a part of the elementary school curriculum (*States Fight*, 2013). This move to retain cursive writing seems to provide evidence that many people believe the role of cursive writing remains important for education. I personally believe the role of cursive writing is important for education because of the connection it gives with this nation's past. Many historical primary documents, from the Declaration of Independence to personal Civil War journals, are written in cursive. While the contents of many of these documents are now readily available in print form, the cherished originals remain in cursive form. Not being able to read cursive writing means students (and the public) would be deprived of the ability to read and personally experience a part of original history, to communicate directly with those from the past. A personal experience related to communicating through cursive writing occurred about a year ago while I was working in a retail setting. An elderly woman submitted a handwritten cursive letter to the store where I was working. The letter detailed how she has been treated with a lack of respect by one of the store's employees. My manager read the letter and took the complaint very seriously, as would be expected when customer satisfaction was involved. The manager was able to rectify the situation and assist the customer only because he could read cursive writing and understand what it was the woman was writing about. Had he not been able to read cursive, he would not have been able to communicate with one of his customers, which is a large part of working in retail.

This personal connection I have with cursive writing is what adds to my interest in exploring the role of cursive writing.

### **Terminology**

The key term for this proposed research is “cursive writing.” The term can refer to the process of writing (actually making the curved type of motion with a writing implement that produces a visible product), or the actual product of writing (the resulting document containing the results of the curved motions). For the purpose of this study, the chosen terminology stresses cursive writing in terms of its format (process) of writing, rather than the content of writing. In terms of its form, Merriam-Webster defines “cursive writing” as “writing in which the strokes of successive characters are joined and the angles are rounded” (*Cursive*, 2015). The term is so well known in general knowledge that an in-depth definition is not provided. Synonyms for cursive writing include “penmanship” and “handwriting”; however, to ensure consistency in this thesis, only the one term “cursive writing” is used.

### **Theoretical Stance**

The theory that connects cursive writing to the reading process is the theory that writing is a part of literacy, and (like reading) is therefore part of a social practice, culturally and discourse-based (Gee, 1991; Voss, 1996; Chu, 2008). Cursive writing is part of the human culture that derived cursive writing as a form of communication within its own community. The community of formal education has cursive writing as its main form of non-oral communication.

The History section below provides an overview of how this social practice of cursive writing became part of the culture of academia and especially elementary education.

### **Rationale**

The research question of the role of cursive writing on the curricular landscape of public school today is important to the field of literacy for two primary reasons. Justification for research into the role of cursive writing in public school curriculum today is found in the support by current researchers and experts in the field of literacy who have identified writing as a topic that should be creating more public and professional attention. According to the International Reading Association's annual "What's Hot, What's Not" report (Cassidy & Grote-Garcia, 2014) compiled from a survey of current researchers and experts in the field of literacy, all of the survey respondents were in agreement that writing should be an "extremely hot" topic even when the survey itself shows it is not. This opinion by experts is evidence that writing is a topic very relevant for researchers and others today. Further justification is found in the state law of North Carolina that requires all North Carolina public elementary schools to teach cursive writing. North Carolina Governor Pat McCrory recently signed into law the state's "Back to Basics" Bill requiring "all North Carolina public schools to teach cursive, and that students are able to create 'readable documents' in 'legible cursive handwriting' by the end of fifth grade" (Urist, 2013, para 2). North Carolina law makers have decided that cursive writing does play a role on the curricular landscape of public schools in that state. The justification provided herein is evidence that cursive writing remains relevant in today's society and is therefore a topic worth researching.

## Chapter 2: Literature Review

The purpose of this literature review is to examine empirical research studies relating to the research question of the role of cursive writing on the curricular landscape of public schools today. After extensively searching academic databases, seven research studies were discovered that have the greatest relevance to this research question. These seven studies have been found using the search terms of *cursive*, *cursive writing*, *penmanship*, and *handwriting*. The dates of the found studies range from 1969 to 2013. The studies are grouped below into those written before the advent of the modern computer keyboard in 1984 and those written after. In addition, this literature review contains a brief history of cursive handwriting in order to provide a background context within which to place the themes and findings resulting from this research study.

### **Before the Advent of the Modern Computer Keyboard in 1984**

Two studies have been found that explore cursive writing prior to the advent of the computer keyboard in 1984. Otto and Rarick (1969) search for the optimal transition time to teach elementary students in a public school setting to move from using manuscript to cursive writing. They examine student writing ability during four possible times: first half of grade 2, second half of grade 2, first half of grade 3, and second half of grade 3. The participants include 240 students in grades two and three from 12 school districts in the state of Wisconsin. The data collection was completed in a single session with the students from each school. To measure

students' achievement in handwriting speed and legibility, data were collected using a task and scoring procedure devised specifically for their study. The task required students to copy by hand a paragraph of fiction text. Each student's piece of writing was scored for speed: the number of letters produced during the first minute of the copying task. Each piece of writing was also scored for legibility, using two 7-point legibility writing scales. Results from the data analysis show "only meager" (p. 11) benefit for using any one of the transition times examined in the study. The impact of transition time upon subsequent reading performance appears to be "very slight" (p. 11). The impact of transition time upon spelling performance appears to be dependent upon local teaching practices and not writing ability. The impact of transition time upon subsequent handwriting performance was "dissipated" (p. 11) by the fact that rapid writing was associated with "late transition," and legible writing was associated with "early transition" (p. 11). Otto and Rarick (1969) draw the conclusion that "when" the transition from manuscript to cursive is made appears less important than "what" is offered in the instructional program that teaches the transition. The timing of the transition between manuscript and cursive writing was not significant; rather, the significance was in how the writing was taught.

The second study conducted before 1984 is by Trap-Porter, Gladden, Hill, and Cooper (1983), who seek to clarify the relationships among student grade level, size of writing paper, and accuracy of student cursive handwriting. Participants include 31 second graders and 29 third graders in a public elementary school in Columbus, Ohio. Data were collected during one regular 40-minute class period for each grade level using writing paper produced by the Zaner-Bloser Handwriting Company. The data consisted of ten model cursive lowercase letters for students to copy; the copies were then compared to transparent overlays developed by the researchers to measure each letter stroke copied by the students. Each letter stroke was analyzed according to

containment within a 0 to 1 mm range, length, closed circles where appropriate, slant, interstroke contact and separateness, and completeness of strokes in letters. Student cursive handwriting was recorded using Zaner-Bloser “writing paper number 2” (p. 232) with a line space size of 3.4 cm (wide paper), and Zaner-Bloser “writing paper number 4” (p. 232) with a line space size of 1.6 cm (standard paper). Data were analyzed by two evaluators trained to assess the writing samples for “correct” (p. 232) letter strokes by using transparent overlays. Results from the study indicate “enhanced” (p. 232) (meaning increased correct cursive letter strokes) cursive handwriting performance when large-spaced writing paper was used with both second and third grade students. In addition, third graders produced more correct strokes than second graders.

#### **After 1984**

Five studies have been found that explore cursive writing after the advent of the computer keyboard in 1984. In chronological order, the first is Shimel, Candler, and Neville-Smith (2009) who compare the effects of cursive handwriting programs on improving letter legibility and form. The programs studied were *Handwriting Without Tears*, *Loops and Other Groups*, and the *Zaner-Bloser* program. Participants include a convenience sample of 50 third grade students from three different classrooms in three different schools in the same school district. Data were collected in a six week intervention period during which instruction in the handwriting programs occurred in small groups (five to seven students) for 10-15 minutes per day. Data were analyzed using the “Wilcoxon signed ranks” (p. 178) test to analyze differences within groups from pretest to posttest. The following dependent variables were analyzed: lowercase legibility, uppercase legibility, and total letter legibility. Results from the study suggest that the method of

handwriting instruction “has a limited short-term impact” (p. 172) on cursive letter legibility and form for children without handwriting problems. In addition, the current study is not able to conclude that “one program was more effective in producing legible cursive handwriting than another for students in general education without identified handwriting problems” (p. 180).

The second study conducted after 1984 is by Roberts, Siever, and Mair (2010) who seek to determine whether grade 4, 5, and 6 students who participate in a kinesthetic writing intervention improve the legibility and speed of their cursive writing, and increase their personal satisfaction with their cursive handwriting. The intervention program used was the *Loops and Other Groups* handwriting program. Participants include 42 grade 4-6 students from 28 schools in Calgary, Alberta, Canada, who were identified by their teachers as having handwriting problems. A “repeated measures design” (p. 746) was used to evaluate change in global legibility, individual letter formation, specific features of handwriting, and personal satisfaction. The program was implemented during a seven-week intervention period by an occupational therapist and a therapy assistant; small groups of students were seen once a week for an hour after school in a quiet room to use the *Loops and Other Groups* program. Data consisted of “three handwriting samples and two measures of personal satisfaction” (p. 747) collected by testing students four times during the seven-week implementation of the program. Data were analyzed by entering the program results into Microsoft Excel 2003 spreadsheets. Results from the study reveal a “significant increase” (p. 745) in ratings of global legibility, “significant improvements” (p. 745) in letter formation and legibility features of baseline, closure, and line quality, “increased” (p. 745) handwriting speed, and “significant increase” (p. 745) in measures of personal satisfaction with handwriting. Researchers conclude that “a kinesthetic handwriting

intervention” such as the *Loops and Other Groups* “may be effective in improving the skills of students with handwriting challenges” (p. 745).

The third study written after 1984 is by Ergodan (2012) who examines the development of cursive handwriting of 117 grade one students from Turkey. Data were collected at the beginning and the end of the first half of the school year, and at the end of the second half of the school year; the data were based on texts (no further detail provided) students wrote using cursive handwriting. Data were analyzed using the “Cursive Handwriting Evaluation Form legibility dimensions” (p. 93): these dimensions were accuracy of letter formation, size of letters, slope, connections between letters, extensions of the letters, writing on the lines, and space between the letters. Results from the study reveal that student handwriting “did not develop” (p. 93) (improve) over this time in terms of legibility, while writing speed did “develop and increase” (p. 93). In the context of these findings, the researchers make recommendations for teaching cursive handwriting in the first year of primary school. They also find implications in the study regarding the increase of student writing speed being attributed to the “structure” (p. 94) of cursive handwriting itself. Researchers determine that students were able to increase their writing speed as they “constantly make connections and do not remove the pencil” (p. 94) from the paper while writing in cursive.

The fourth study conducted after 1984 is written by Morin, Lavoie, and Montesinos-Gelet (2012) who study the relationship between different handwriting styles (manuscript, cursive, and manuscript/cursive) and the development of writing skills among 715 French speaking children in grade 2 from Quebec, Canada. For purposes related to the study, students were divided into one of three groups (a manuscript group, a cursive group, and a manuscript/cursive group) according to teaching practices exhibited in each classroom at the beginning of the study. Each

group reflected the type of writing instruction students would receive throughout the study's entirety. Data were collected once at the beginning and the end of grade 2 during a 45-minute period where children performed three collective tasks: writing letters of the alphabet, writing words, and writing a text summary in a given amount of time. Data were analyzed by comparing the graphomotor skills (speed and quality), word production, and composition skills (syntax, length, and content quality) for each of the three groups. Results from the data analysis reveal that the three handwriting styles have different effects on student writing development. More specifically, manuscript/cursive style students do not perform as well in spelling as the students in the other groups. This finding offered support to the idea that the development of writing skills in elementary school is better served by teaching a "single handwriting style" (p. 121) (cursive or manuscript) to avoid "dual learning" (p. 121). In addition, a trend emerged in the data for cursive writing style students; they were the only ones who showed an improvement in syntax. Another positive aspect of learning the cursive style was an improvement in word "production" (p. 121) (the number of words having the correct spelling in the isolated word task) by the end of the school year.

The fifth study in this sequence of studies conducted after 1984 is by Jolly and Gentaz (2013) who compare the cursive handwriting of a French second-grade student with Developmental Coordination Disorder (DCD) to the cursive handwriting of typically developing French first and second grade students. A total of 85 first-grade students and 88 second-grade students are participants in the study along with the one second-grade student with DCD. Data were collected at the end of the school year, in May, by having all students write, in cursive without a time limit, the 26 letters of the alphabet, the syllables "be," "ble," "bre," "ch," "ll," and "ve," and the words "cinq," "dix," and "quinze." The students' writing was performed on a sheet

of paper placed on a graphic tablet. The student writing samples were then analyzed based on nine different parameters: the number of pen strokes, pen in-air time, length of the track in cm, total writing time, speed (length/time ratio), velocity peaks, number of slow movements, number of pauses, and pausing time. Results reveal that the cursive handwriting productions of the student with DCD were more similar to those of first-graders than to those of second-graders. In addition, the cursive handwriting of the student with DCD was “less fluent than that of typically developing children” (p. 1). A higher writing velocity of the DCD student was also observed when compared to typically developing students. In addition, researchers found “no significant difference” (p.1) between the students in the pause time during writing.

### **Summary of Literature Review**

There were seven research studies found that related to cursive writing. Of these, two were conducted before the advent of the modern computer keyboard in 1984. Both those studies appeared to accept cursive writing unquestionably as an expected part of elementary public school curriculum. Based on those studies, the role of cursive writing in the curriculum during that time appeared to raise research questions of *when* and *how* cursive writing should be taught, rather than *if* it should be taught as part of the public school curriculum. The five research studies conducted after the advent of the modern computer keyboard in 1984 were all conducted in the last five years: 2009, 2010, 2012, 2012, 2013. Each of these research studies examined cursive writing in terms of its applicability in real elementary classrooms, and whether it will continue to play a role in public school curriculum. Since the introduction of the modern keyboard, research appears to no longer view cursive writing as an expected or unquestioned part of elementary

school curriculum; instead, the examination of cursive writing appears to have shifted from *when* and *how* it should be taught, to *if* it should be taught at all.

### **A Brief History of Cursive Writing**

In the mid-1800s, a bookkeeper named Platt Rogers Spencer attempted to “democratize” American penmanship by formulating a cursive writing system that was very “ornate and sinuous” (Cohen, 2012, para.4). This system became known as the “Spencerian Method” (Cohen, 2012, para. 4). Many public schools of the time quickly adopted this democratic writing system. By the turn of the century, an approach introduced by Austin Norman Palmer replaced the Spencerian Method in American classrooms (Mann, 2003). Palmer promoted his method as a “quicker, less fancy, and more readable alternative” (Mann, 2003, para. 3) to Spencer’s. In the Palmer Method, students learned to form “loopy characters between horizontal lines on chalkboards” (Cohen, 2012, para. 5). The descendant of the Palmer Method is the D’Nealian script, which originated in the 1970s. This script was designed by Donald Thurber to “ease the transition from printing to cursive writing” (Cohen, 2012, para. 5). While the Palmer Method used “stick-and-ball,” also known as “vertical printing” (Mann, 2003, para. 4), the D’Nealian cursive method involved the connection of “printed letters with tails” (Mann, 2003, para. 4). A rival to the D’Nealian Method for use in school curriculum was the Zaner-Bloser Method: “In 1904, Zaner-Bloser published *The Zaner Method of Arm Movement*, a landmark text that taught the simplified style of writing learned by... children in elementary schools all over the United States” (Zaner-Bloser, n.d., para 5). This simplified writing style and instructional method dominated writing textbooks for much of the 20<sup>th</sup> century, combining with a leading publisher of

children's magazines in 1972 to increase its distribution (Zaner-Bloser, n.d.). As typewriters and word processors came to dominate the business world, schools began to eliminate penmanship classes; by the 1980s, many students in United States elementary schools "received little formal training" (Cohen, 2012, para. 6) in cursive writing. In contrast, students in many European countries were still receiving "rigorous handwriting instruction" (Cohen, 2012, para. 6) as they still do today (Cohen, 2012).

## **Chapter 3: Methodology**

### **Overview of Methodology**

To answer the question of the role of cursive writing on the curricular landscape of public schools, I will use qualitative methodology to conduct empirical research through thematic analysis. The literature review contains summaries of the seven research studies found that relate to cursive writing. Given the relatively large interest in cursive writing in the last few years and the few existing research studies, one starts to wonder about the basis for this current interest in cursive writing. Therefore, one purpose for this research is to conduct a thematic study of current texts on cursive writing in order to determine a possible basis for this recent interest. Documents for analysis will include all news media articles and stories, and all social media documents that can be found related to cursive writing. Thematic analysis of these documents will produce findings that contribute to an understanding of the role of cursive writing on the curricular landscape today.

### **Design of Study**

The methodology for this study is qualitative, specifically a thematic analysis. The design of this study is empirical research using thematic analysis of a collection of news media and social media documents by classroom teachers and others on cursive writing. The goal of this empirical research is to investigate the role of cursive writing on the curricular landscape of public schools today. This is based on the fact that cursive writing appears to come in and out of

media attention, which leads a reading specialist to speculate that there is a lack of shared knowledge about cursive and a lack of understanding about whether teachers should be concerned about this lack of consensus.

### **Data.**

This empirical research was conducted without using human subjects as participants. Instead, the data consist of documents in all news media and all social media that can be found related to cursive writing. These documents include newspapers and magazine articles and stories in print and on the internet, as well as news reporting on the internet, and include social media documents such as webpages, blogs, and list-serves, as well as content on websites related to cursive writing and penmanship. For the purposes of this study, and to ensure the use of “current” data, documents and texts selected as data were limited to only those produced since 2010.

### **Procedures.**

This empirical study began with data collection, performed through an exhaustive search of all news media and social media. Once the data were collected, they were analyzed by sorting and grouping by genre and other characteristics. The content of each genre and category was then coded for themes and re-coding across genres and categories. Analysis results were then synthesized to produce findings for this study.

### **Data Collection.**

Data collection was performed through an exhaustive search of all news media and social media, looking for all articles and items that related to cursive writing. The search was conducted using search engines on the internet including Google and Yahoo. The terms “cursive,” “cursive writing,” “penmanship,” and “handwriting” were entered into the search engines to gather data. Actual collection consisted of using a Microsoft Word document to save Uniform Resource Locators (URLs) of entire webpages, and saving whole documents as pdf files. The total number of documents and texts identifiable as individual pieces of data was 10,762.

### **Data Analysis**

#### **Analysis by Genre.**

The process of data analysis began with sorting and grouping the 10,758 pieces of individual data by genre. The term “genre” is defined for this study as a category “characterized by a particular style, form, or content” (*genre*, 2015) and wherein all members of a category share identifiable characteristics. The most readily identified genres were news articles (in both major online newspapers and smaller news venues) (with a total of 100 pieces), and blogs on various websites (with a total of 39 pieces). The total number of identifiable genres was 11: Comments on Articles (10,492 data pieces), Newspaper Articles (100), Blogs (39), News Websites (35), Television Stations (34), Magazine Articles (26), Webpages (13), Radio Stations

(10), Letters to Editor (7), Facebook Pages (1), and Chat Forums (1). Figure 1 shows the names of the genres, and the number and percentages of data pieces in each genre.

**Figure 1: Data Sorted by Genres**

(See Appendix)

The data in Figure 1 show that the genre of Comments on Articles is by far the largest genre; it comprises over 97% of the data when categorized by genre. This very large percentage overshadows all other categories, which are then less than 1% each. However, the fact that comments are being made indicates that there are a very large number of people interested enough in cursive writing to respond in a comment, and they want their opinions to be heard. The data in Figure 1 also show that the four next largest genres by pieces of data are Newspaper Articles, Blogs, News Websites, and Television Stations. For clarification, the difference between a Comment and a Blog has been determined partly by location; a Comment is an “add-on” to another genre, such as a Newspaper Article or News Website, while a Blog is a “stand-alone” genre. Figure 2 provides a view of the relationship among the genres once the overpowering 97% category is removed.

**Figure 2: Percentage Relationship of 10 Genres**

(See Appendix)

Newspapers, News Websites, and Television Stations are very public venues; the majority of blogs are actually also found on News Websites. This cluster of genres connected to “News”

indicates that cursive writing is a very public topic, one deemed significant enough by the media to be considered as “News” that should reach many readers/viewers.

The next step in the analysis was to determine the content of the genres. In order to be collected as data, the content of the piece of writing had to be about cursive writing, so another analysis question was needed to further identify and categorize the theme of “content.” Therefore, the next step was to identify those pieces whose content and message appeared to be supportive in some way or non-supportive of cursive writing in some way. In looking for supportive content, certain words and phrases were identified as indicators of support: for example, words such as *keep*, *agree*, *like*, *do not remove*, and similar others. In looking for non-supportive content, certain words and phrases were identified as indicators of non-support: words such as *disagree*, *dislike*, *remove*, *do not include*, and similar others. Applying these indicators to the genres produced this break down of the data: of the 100 newspaper articles, 71 appeared to be supportive while 29 were not; of the 39 blogs, 28 were supportive while 11 were not. Figure 3 presents the full supportive/non-supportive break down by genre.

### **Figure 3: Supportive/Non-Supportive by Genre**

(See Appendix)

As Figure 3 shows, the data in support of cursive writing in the top four genre categories are supportive by at least a 2:1 ratio: in some genres, support is more than double the non-support data. In the genres with smaller numbers of data pieces, the ratios are even higher. These ratios indicate that far more people are writing in support of cursive writing than those who are not.

The next section of this analysis breaks down the support/non-support categories to determine precisely what it is about cursive writing that people support (or not).

In summary, when examining the genre of Comments on Articles, the above data indicates that there are a very large number of people interested enough in cursive writing to respond in a comment, and they want their opinions to be heard. In addition, when examining the percentage relationship of genres, the cluster of genres connected to “News” (newspapers, news websites, television stations, and blogs) indicates that cursive writing is a very public topic, one deemed significant enough by the media to be considered as “News” that should reach many readers/viewers. In addition, when looking at the supportive/non-supportive data pieces by genre, the data in support of cursive writing in the top four genre categories (comments on articles, news articles, blogs, news websites) are at least a 2:1 ratio: in some genres, support is more than double the non-support data. In the genres with smaller numbers of data pieces, the ratios are even higher. These ratios indicate that far more people are writing in support of cursive writing than those who are not.

### **Analysis of Type of Support by Genre.**

The next step was to then examine the content of each supportive and non-supportive category: to code data for themes that would identify the object of the support each offered. Starting with the 6,465 pieces of data identified as “supportive” of cursive, this researcher looked for answers to the question of what *precisely* the piece was supportive of. One issue with the thematic coding occurred when analyzing the Comments on Articles genre. Of the 8,978 comments, the majority of them could not be independently subcategorized by type of support.

For example, a Comment of “I agree” carries no indicators of what the writer is agreeing with. Therefore, for the majority of the Comments, the object of support had to be determined by the larger context of the Comment, that is, the content of the news data to which the Comment was attached. However, even with that coding, some Comments remained unclear and ambiguous as to what precisely they were supporting (or not). These comments were given the theme of “ambiguous.” The full coding analysis revealed five themes for the subcategory of objects of support for cursive writing: Ambiguous (79.04%), Teaching Cursive Writing in Schools (10.97%), Mandating the Teaching of Cursive Writing in Schools (3.36%), Not Letting Cursive Die (4.84%), and Cursive Improving Brain Function (1.79%). For the purposes of this study, *brain function* refers to the cognitive abilities of an individual.

#### **Figure 4: Objects in Support of**

(See Appendix)

Results displayed in Figure 4 show that out of 6,465 data pieces in support of cursive writing, 79.04% are ambiguous as to what specifically about cursive writing they are supporting. Examples of these ambiguous comments include *I learned cursive in grade 3*, *My son is learning cursive now*, and *I learned cursive while in public school*. Many such ambiguous comments demonstrate that some Comment writers appear to get off the topic of support/non-support quite easily, and some off-topic interactions can occur. Perhaps these interactions reveal less about an opinion of cursive writing and more about the nature of Comment writing. The second and third largest objects of support are the themes of Teaching Cursive Writing in Schools and Do Not Let

Cursive Die. Together these two themes show the desire to have the teaching of cursive writing remain part of public school curriculum.

Having looked at the genres of the data, the supportive content, and the object of the support, the next analytical question was, where was this support expressed? That is, what is the relationship between the objects of support and the genres of the data? The answer lies in the comparison of support themes to genres as presented in Figure 5. For instance, of the 71 newspaper articles identified as in support of cursive writing, 24 were specifically supporting the mandating of cursive writing in schools.

### **Figure 5: Comparison of Genres to Supportive Themes**

(See Appendix)

Results from this comparison in Figure 5 reveal that the genre of Comments on Articles contained the largest number of data pieces in the themes of Teaching, Mandating Teaching, Not Let Cursive Die, Improve Brain Function, and Ambiguous.

In summary, when examining the genre data pieces in support of cursive writing, the very large Ambiguous category can be set aside in order to provide a clearer picture using the more specific data. The second and third largest objects of support are the themes of Teaching Cursive Writing in Schools and Not Let Cursive Die. Together these two themes show the desire to have the teaching of cursive writing remain part of public school curriculum. In addition, when comparing genres to supportive themes, the genre of Comments on Articles contained the largest number of data pieces in the themes of Teaching, Mandating Teaching, Not Let Cursive Die, Improve Brain Function, and Ambiguous. In addition, Figure 5 reveals that 19.17% of genre data

pieces are supportive of cursive writing remaining alive and being taught in public schools today. This number is significant since it represents nearly one-fifth of the total genre data pieces collected in support of cursive writing. Also, the number of ambiguous genre data pieces from figure 5 reveal that 79.04% of people are uncertain as to their position regarding cursive writing. This means nearly 80% of people could perhaps be easily persuaded to be supportive or non-supportive of cursive writing in some way.

### **Analysis of Type of Non-Support by Genre.**

Having determined the thematic support in the data, the next phase of the analysis was to examine the thematic non-support. Starting with the 2,779 pieces of data identified as “non-supportive” of cursive writing, this researcher looked for answers to the question of what *precisely* each data piece was non-supportive of. To create a more comparable approach to data analysis, the themes identified under the supportive category were re-written into negative terms and applied as possible codes for the non-support category: Ambiguous, No Mandating of the Teaching of Cursive in Schools, No Teaching Cursive in Schools, Let Cursive Die, and No Impact on Brain Function. This thematic coding did match the negative versions of the support themes; the five themes indicating objects of non-support for cursive writing were Ambiguous (82.4%), No Mandating of Cursive Writing in Schools (1.91%), No Teaching of Cursive Writing in Schools (10.62%), Let Cursive Die (4.53%), and No Impact on Brain Function (0.54%). The category of Ambiguous is also included in this analysis simply because of the ambiguous nature of the data: the ambiguity means they could be supportive *or* non-supportive.

**Figure 6: Objects in Non-Support of.**

(See Appendix)

Figure 6 shows that the next two largest objects of non-support are No Teaching of Cursive Writing in Schools and Let Cursive Die. In addition, the non-support of Teaching Cursive Writing in Schools more than quadruples the non-support of No Mandating Cursive Writing in Schools. This difference indicates that there appears to be far more support and interest for not teaching cursive in schools generally than for not mandating cursive in schools.

The next analytical question was, where was this non-support expressed? That is, what is the relationship between the objects of non-support and the genres of the data? The answer lies in the comparison of non-support themes to genres as presented in Figure 7. For instance, of the 29 newspaper articles identified as non-supportive of cursive writing, only 2 were specifically not supporting the mandating of cursive writing in schools. When examining Figure 7, it is also important to realize there exists a limited number of data pieces strongly against cursive writing. They are categorized under No Teaching of Cursive Writing in Schools and come from the genres Webpages and Chat Forums, which are designed to have a biased approach. This is because webpages and chat forums can be created by individuals with no restrictions as to the content posted.

**Figure 7: Comparison of Genres to Non-Supportive Themes**

(See Appendix)

Results from Figure 7 reveal that the genre of Comments on Articles contains the largest number of data pieces in the themes of No Teaching, No Mandating Teaching, Let Cursive Die, No Impact on Brain Function, and Ambiguous. This remains consistent with the genre data pieces supportive of cursive writing from Figure 5, and is not surprising given the very large number of data pieces in that category.

In summary, aside from the Ambiguous type of non-support of cursive writing, the next two largest objects of non-support are No Teaching of Cursive Writing in Schools and Let Cursive Die. In addition, the non-support of No Teaching Cursive Writing in Schools more than quadruples the non-support of No Mandating of Cursive Writing in Schools. This difference indicates that there appears to be far more support and interest for not teaching cursive in schools generally than for not mandating cursive in schools. In addition, the non-supportive genre of Comments on Articles contains the largest number of data pieces in the themes of No Teaching, No Mandating Teaching, Let Cursive Die, No Impact on Brain Function, and Ambiguous. This remains consistent with the genre data pieces supportive of cursive writing when examining the same five themes. In addition, data from Figure 7 reveal that 17.06% of genre data pieces non-supportive of cursive writing are supportive of cursive dying and no longer being taught in public schools today. When comparing this data to Figure 5, people are 2.11% more supportive of keeping cursive writing in public schools than eliminating it all together. Data from Figure 7 also reveal that 82.4% of people remain ambiguous as to whether cursive should remain in public schools or not. This large number of people represents a swing vote that could be persuaded towards one side or the other at any time.

### **Analysis by Writer.**

From genre to support and object of support, the next step of the data analysis was determining who was writing the data. The 10,762 pieces of data were then sorted and grouped by identifiable writer. For the purposes of this study, the “identity” of a writer was determined by self-disclosure. The most readily identified and categorized writers were Unknown with a total of 9,676 data pieces. For writers to be categorized as Unknown means that there were no clues in the writing from which identification can be determined. Neither was there any way to determine that each data piece was written by a separate writer; one writer could have written many pieces of data in various genres. The second largest category of writers was Teachers with a total of 577 data pieces. The total number of writer types identified was seven: Unknown (9,676), Teachers (577), Parents (184), Reporters/Journalists (149), Students (119), Book Authors/Writers (53), and Doctors (4). Figure 8 shows the number and percentages of the writer types.

### **Figure 8: Data Sorted by Writers**

(See Appendix)

Figure 8 reveals that the largest identifiable writer type is Teachers with a total of 577 data pieces. This is significant because teachers are working in the schools, and are “on the front lines” when it comes to cursive writing. They are voicing their opinions as the largest identifiable type of writer. The next largest groups of identifiable writers are Parents, Reporters/Journalists, and Students, all those most closely dealing with cursive writing. This represents that those most closely involved are speaking out. The largest group of writers are Unknown. Many possible reasons exist as to why these writers are not revealing their identities. These writers *could* be

parents, teachers, or students who, for some reason, choose to remain anonymous. This large number could also be writers who do not reveal their identity so they can comment multiple times without being accused of monopolizing a comment area, or they could just be people who like to make comments on the internet because they can do so anonymously. Removing this category of Unknown identity, Figure 9 represents the relationship among identifiable writers (using percentages for ease of comparison).

### **Figure 9: Percentage Relationship of Identifiable Writers**

(See Appendix)

The next step in the analysis was to determine the content of the writer types: in other words, what were each of these writers saying. From the 10,762 identifiable pieces of data, the next step was to identify those pieces whose content and message appeared to be supportive in some way and non-supportive in some way. The same procedures as for genre analysis by content was applied here. In looking for supportive content, certain words and phrases were identified as indicators of support. These included *keep, agree, like, do not remove*, and similar others. In looking for non-supportive content, certain words and phrases were identified as indicators of non-support. These included *disagree, dislike, remove, do not include*, and similar others. Applying these indicators to the writer types produced this break down of the data: of the 184 written by parents, 140 appeared to be supportive while 44 were not; of the 149 written by reporters/journalists, 114 were supportive while 35 were not. Figure 10 presents the full supportive/non-supportive break down by writer.

**Figure 10: Supportive/Non-Supportive by Writer**

(See Appendix)

As Figure 10 shows, the data in support of cursive writing in Teacher writer category is a little over a 2:1 ratio of support to non-support; for Parents and Reporters, the ratio is just over 3:1 in support; while for Students, the ratio is over 11:1 in support. These ratios indicate that far more people are writing in support of cursive writing than those who are not. The next section of this analysis breaks down the support/non-support categories to determine precisely what it is about cursive writing that people support (or not).

In summary, when examining who is writing about cursive writing, the largest identifiable writer type is Teachers with a total of 577 data pieces. This is significant because teachers are working in the schools, and are “on the front lines” when it comes to cursive writing. They are voicing their opinions and have become the largest identifiable type of writer to do so. The next largest groups of identifiable writers are Parents, Reporters/Journalists, and Students. The Parents and Students, like Teachers, are those most closely involved with the teaching of cursive writing; data show that they are the ones speaking out most frequently. When examining the identifiable writers, the data in support of cursive writing in the top four writer categories (Identity Unknown, Teachers, Parents, Reporters/Journalists) are in at least a 2:1 ratio: in some writer types, support is more than double the non-support data. In the writer types with smaller numbers of data pieces, the ratios are even higher. These ratios indicate that far more people are writing in support of cursive writing than those who are not.

### **Analysis of Type of Support by Writer.**

The next step was then to examine the content of each writer supportive and non-supportive category: to code them for themes that would identify the object of the support each offered. Starting with the 6,469 pieces of data identified as “supportive” of cursive writing, this researcher looked for answers to the question of what *precisely* the writer was supportive of. One issue with this thematic coding occurred when analyzing the Unknown writer type. Of the 8,162 Unknown writers, the majority of them could not be independently subcategorized by type of support. These Unknown writers were given the theme of Ambiguous. The full coding analysis revealed five themes for the subcategory of objects of support for cursive writing: Ambiguous (78.99%), Mandating the Teaching of Cursive Writing in Schools (3.37%), Teaching Cursive Writing in Schools (10.98%), Not Letting Cursive Die (4.76%), and Cursive Improving Brain Function (1.90%).

### **Figure 11: Objects in Support of**

(See Appendix)

Results displayed in Figure 11 show that out of 6,469 data pieces in support of cursive writing, 78.99% are ambiguous as to what specifically about cursive writing they are supporting.

Examples of these ambiguous comments include *This is no place for racist comments*, and *Please do not say that again*, and *I learned cursive writing in grade 3*. Many such ambiguous comments demonstrate that some Comment writers appear to get off topic quite easily, and some off-topic interactions can occur. Perhaps these interactions reveal less about an opinion of

cursive writing and more about the nature of Comment writing. The second and third largest objects of support are the themes of Teaching Cursive Writing in Schools and Not Letting Cursive Die. Together these two themes show the desire to have the teaching of cursive writing remain part of public school curriculum.

Having looked at the writers of the data, the supportive content, and the object of the support, the next analytical question was, where was this support expressed? That is, what is the relationship between the objects of support and the writers of the data? The answer lies in the comparison of support themes to writers as presented in Figure 12. For instance, of the 114 Reporters/Journalists identified as in support of cursive writing, 52 were specifically supporting the mandating of cursive writing in schools.

### **Figure 12: Comparison of Writers to Supportive Themes**

(See Appendix)

Results from this comparison in Figure 12 reveal that the writer types of Teachers contained the largest number of data pieces in the themes of Teaching and Mandating Teaching.

In summary, when examining the analysis of the type of support by writers, results displayed in Figure 11 show that out of 6,469 data pieces in support of cursive writing, 78.99% are ambiguous as to what specifically about cursive writing they are supporting. Many such ambiguous comments demonstrate that some Comment writers appear to get off topic quite easily, and some off-topic interactions can occur. In addition, the second and third largest objects of support are the themes of Teaching Cursive Writing in Schools and Not Letting Cursive Die. Together these two themes show the desire to have the teaching of cursive writing remain part of

public school curriculum. In addition, when comparing the known writer types to support themes, the writer type of Teachers contains the largest number of data pieces in the themes of Teaching and Mandating Teaching. This reveals that teachers represent the majority of known writers supporting the teaching and mandating of cursive in schools. In addition, data from Figure 12 reveal that 19.11% of writers supportive of cursive writing are in favor of its continued use in public schools today. This comprises nearly one-fifth of the total writers supportive of cursive writing. Also, 78.99% of writers from Figure 12 remain ambiguous as to whether they are supportive or non-supportive of cursive writing. This creates a large number of people who could likely be persuaded at any time towards one side or the other.

#### **Analysis of Type of Non-Support by Writer.**

Having determined the thematic support in the data, the next phase of the analysis was to examine the thematic non-support. Starting with the 2,779 pieces of data identified as “non-supportive” of cursive writing, this researcher looked for answers to the question of what *precisely* each data piece was non-supportive of. To create a more comparable approach to data analysis, the themes identified under the supportive category were re-written into negative terms and applied as possible codes for the non-support category: No Mandating of the Teaching of Cursive in Schools, No Teaching Cursive in Schools, Let Cursive Die, Ambiguous, and No Impact on Brain Function. This thematic coding did match the negative versions of the support themes; the five themes indicating objects of non-support for cursive writing were Ambiguous (82.40%), No Mandating of Cursive Writing in Schools (1.91%), No Teaching of Cursive

Writing in Schools (10.62%), Let Cursive Die (4.57%), and No Impact on Brain Function (0.50%).

**Figure 13: Objects in Non-Support of**

(See Appendix)

Figure 13 shows that the two second largest objects of non-support are No Teaching of Cursive Writing in Schools and Letting Cursive Die. In addition, the non-support of Teaching Cursive Writing in Schools more than quadruples the non-support of Mandating the Teaching of Cursive Writing in Schools. This difference indicates that there appears to be far more support and interest for not teaching cursive in schools generally than for not mandating cursive in schools.

The next analytical question was, where was this non-support expressed? That is, what is the relationship between the objects of non-support and the writers of the data? The answer lies in the comparison of non-support themes to writers as presented in Figure 14. For instance, of the 35 reporters/journalists identified as non-supportive of cursive writing, only 2 were specifically not supporting the mandating of cursive writing in schools.

**Figure 14: Comparison of Writers to Non-Supportive Themes**

(See Appendix)

Results from Figure 14 reveal that Teachers wrote the largest number of data pieces in the themes of No Teaching and No Mandating Teaching. This remains consistent with the writer data pieces supportive of cursive writing from Figure 12.

In summary, when examining analysis by type of non-support, Figure 13 shows that the two second largest objects of non-support are No Teaching of Cursive Writing in Schools and Letting Cursive Die. In addition, the non-support of Teaching Cursive Writing in Schools more than quadruples the non-support of Mandating the Teaching of Cursive Writing in Schools. This difference indicates that there appears to be far more support and interest for not teaching cursive in schools generally than for not mandating cursive in schools. In addition, Figure 14 reveals that Teachers contain the largest number of data pieces in the themes of No Teaching and No Mandating Teaching. This remains consistent with the writer data pieces supportive of cursive writing from Figure 12. In addition, Figure 14 reveals that 17.10% of writers are non-supportive of continuing the use of cursive writing in public schools today. When comparing this to Figures 5, 7, and 12, there is again nearly 20% of the data that is supportive or non-supportive in some way of the use of cursive in today's public schools. Figure 14 also reveals that 82.40% of writers remain ambiguous as to being supportive or non-supportive of cursive writing in some way. This number remains consistent with the ambiguous data pieces from Figures 5, 7, and 12, all of which are just below or above 80%.

### **Educational Aids for Cursive Writing.**

Data collection for this research found 10,762 individual pieces of data related to cursive writing; these were either supportive or non-supportive of cursive writing in some way. However, in addition to the data related to the supportive/non-supportive focus of this study, there were other data found related to cursive writing. These 76 pieces of data had similar content and were therefore able to be categorized as “educational aids” for cursive writing. These

data pieces consisted of “how to” articles, classroom teacher printable resources, cursive writing instructional programs, instructional videos, downloadable applications for smartphones and tablets, as well as information on the history of cursive writing. The fact that these aids exist provides implied evidence that this genre and its writers are supportive of cursive writing and of teaching cursive writing in the classroom.

## Chapter 4: Results and Interpretation

### Results (findings)

Upon undertaking a review of the literature to determine what research has been done to date on cursive writing, this researcher found minimal studies on the topic. The researcher then decided to conduct his own research study to determine the role of cursive writing on the curricular landscape of public schools today. The researcher searched for all pieces of writing related to the topic of cursive writing as could be found on the internet and written between January 2010 and February 2015. A total of 10,762 individual pieces of data were collected. Analysis of the data was performed using a thematic analysis approach. Several findings emerged. The first is that most of the writings occur in news venues (major online newspapers and smaller news venues online) and in the form of articles and comments on articles: Comments account for over 97% of the total data, while newspaper articles more than double any non-comment genre providing information about cursive writing. The second finding is that teachers and educators comprise the largest identifiable writer type. While Unknown and Non-identifiable writers account for the majority of the data pieces, teachers lead the identifiable category with nearly 55% of known writers; parents, news reporters, and students cluster between 11-17% for second place. After the where and the who, this third finding addresses the what is being said. While Ambiguous or Unclear content accounts for the majority of the data pieces, analysis shows that the remaining content data is either supportive or non-supportive of retaining cursive in school curriculum, with supportive holding at least a 2 to 1 ratio. These findings suggest that a

third finding of this research is that support for retaining cursive in schools is more than double the support for removing it from school curriculum.

### **Reliability of Data**

This research study collected qualitative data consisting of all news media and social media documents written about cursive writing between January 2010 and February 2015. A total of 10,762 individual pieces of data were found for those years. Thematic analysis of this qualitative data provided a means for determining the role cursive writing has on the curriculum of today's public schools. Part of the reliability of the data resides in the fact that the researcher collected data from a variety of genres to look for answers to the research question. Another part is that the researcher collected any and all information from all sources during the initial data collection process using the selection criteria of specifically relating to cursive writing.

### **Interpretation of Data/Interpretation of the Results**

Results of the data interpretation indicate three findings emerging from this empirical study. The first finding is that most of the writings occur in news venues (major online newspaper and smaller news venues online) and in the form of articles and comments on articles. Public comments account for over 97% of the total data, while newspaper articles more than double any non-comment genre providing information about cursive writing. Results indicate that cursive writing is supported in very public, informational formats, accessible by a large number of people. Interpretation of these results shows this to mean that cursive writing is a very

public topic, not one discussed by an elite few in private or restricted locations. It also shows that cursive writing is a current topic, one deemed significant enough by the media to be considered as “news” that should reach many readers, not an outdated topic as some iPad fanatics may believe.

The second finding is that teachers and educators comprise the largest identifiable writer type. While Unknown and Non-identifiable writers account for the majority of the data pieces, teachers lead the identifiable category with nearly 55% of known writers; parents, news reporters, and students cluster between 11-17% for second place. This finding is significant because teachers are working in the schools, and are “on the front lines” when it comes to cursive writing. They are voicing their opinions and have become the largest identifiable type of writer to speak out on the issue. Since Teachers are the largest identifiable writer type concerning cursive writing, understanding exactly what they are writing about is beneficial to this research. Results show that when writing about cursive writing, teachers were mostly commenting on existing articles. They appear to be quite willing to write short comments in response to existing articles, rather than write their own articles.

After the where and the who, this third finding addresses the what is being said. While Ambiguous or Unclear content accounts for the majority of the data pieces, analysis shows that the remaining data content data is either supportive or non-supportive of retaining cursive writing in school curriculum, with supportive holding at least a 2 to 1 ratio. These figures suggest that a third finding of this research is that support for retaining cursive writing in schools is more than double the support for removing it from school curriculum. Results also indicate that, similar to the fact that a large number of teachers are in favor of cursive writing in the public

school curriculum, there is also a not insignificant number of teachers who are opposed to cursive writing in the public school curriculum.

Interpretation of the data from this research study revealed a large number of data pieces classified as ambiguous as to the type of support or non-support expressed in their content. Roughly 80% of all data pieces remained ambiguous or unclear as to the type of support or non-support they expressed. This Ambiguous category has resulted in more questions being raised than it provides answers for. For instance, is each piece of writing by a different author or has a single author written multiple comments? Or why have some writers chosen to remain anonymous on a topic which appears to be non-life threatening? Or why do so many writers appear to make unrelated comments simply for the sake of making comments?

## Chapter 5: Discussion and Conclusion

### Overview of Study and Findings

The advent of the word processor has led to the slow demise of cursive writing, including the decline in time spent teaching this form of writing in public schools today. While some technology-minded people may feel that the process and product of cursive writing appear to have no obvious function in today's technology-based society, the fact remains that the topic of cursive writing has been surfacing frequently in the news media and social media of the last five years. Thus the question forms as to whether teachers should be concerned about this public attention. A reading and writing specialist then also questions the role of cursive writing, and this literacy specialist proposes the research question of what is the role of cursive writing on the curricular landscape of public schools today? The most appropriate way to address this question is with empirical research using thematic analysis of a collection of news media and social media documents as found on the internet. Results of this analysis find that most of the writings occur in news venues (major online newspapers and smaller news venues online) and in the form of articles and comments on articles, with while newspaper articles more than double any non-comment genre. The second finding is that teachers and educators comprise the largest identifiable writer type, accounting for nearly 55% of known writers while parents, news reporters, and students cluster between 11-17% for second place. A third finding is that of the either supportive or non-supportive content of the data, supportive holds minimum 2 to 1 ratio, meaning that support for retaining cursive writing in schools is more than double the support for removing it from school curriculum.

### **Significance of the Findings**

These findings are significant to classroom teachers, as well as to the field of literacy. The findings are significant to classroom teachers because the findings provide them with research data that helps clarify the issues. The data clarifies the types of objects of support for cursive writing; that is, people in support of cursive writing appear to mean keeping it in the school curriculum, with some wanting it not only included but also mandated in the curriculum. At the same time, findings show that while support is over 2 to 1 in support, there is a degree of non-support, meaning some people do want cursive removed from school curriculum. In addition, this study reveals the existence of 76 cursive writing educational aids for use by classroom teachers, especially those in favor of continuing to have cursive in the curriculum. The findings are significant to the field of literacy because, just like for other teachers, the findings help researchers, policy makers, and others in the field clarify issues and get a sense of how cursive writing is being considered in today's technology-based world.

### **Limitations of the Findings**

These findings are limited by the lack of current research available on the topic of cursive writing. Had there been more available research, this study would have included a larger literature review with more comparative data and a better view of cursive writing from a research point of view. A second limitation of the findings is the very large number of Ambiguous and Unclear data pieces especially in the Comments genre. Although many pieces were written as comments to articles or blogs, their content did not always relate to the topic or was more factual

than opinionated. Had the writers of these data pieces made their position on cursive writing known, the data set would have looked very different than it does. In a similar way, these findings are limited because of the non-identifiable writers. For various reasons, some writers choose not to disclose or even hint at their names or occupations; thus the data is also limited by not knowing more occupations or identities of the writers or even the number of individual writers. Therefore a limitation of this study is the necessity of assuming for expediency sake that each data piece was written by one separate author.

### **Conclusion: Answer to the Research Question**

The research question of this empirical study using thematic analysis is, what is the role of cursive writing on the curricular landscape of public schools today? The findings are that most of the writings occur in news venues, that teachers and educators comprise the largest identifiable writer type, and that the data content supportive of retaining cursive writing in schools is at least 2 to 1 in support. Interpretation of these findings shows that discussion of cursive writing appears to center on the school, and therefore the role of cursive writing appears to exist in the setting of the public school. In answer to the research question, the role of cursive writing in public school curriculum is, given the degree of support identified, likely to continue even though the role has a degree of controversy (from those that want it removed). Part of that support for remaining part of the public school curriculum appears to come in part from the long history of cursive writing as a form of communication that has been embedded in current public school curriculum for well over 100 years.

**Recommendations for Future Research**

Recommendations for future research into the role of cursive writing on the curricular landscape of public schools today include using a content filter on the raw data gathered. As this researcher learned, much data that originally appears related turns out not to be after a deeper scrutiny. A second recommendation is for more empirical studies to be conducted regarding cursive writing. This current identified limitation prohibits researchers from creating an extensive literature review from which findings can be produced to be made applicable for educators. Perhaps researchers could explore the actual practice in schools regarding teaching cursive writing, not just the “how to” pedagogy but also the “when” curricular practice.

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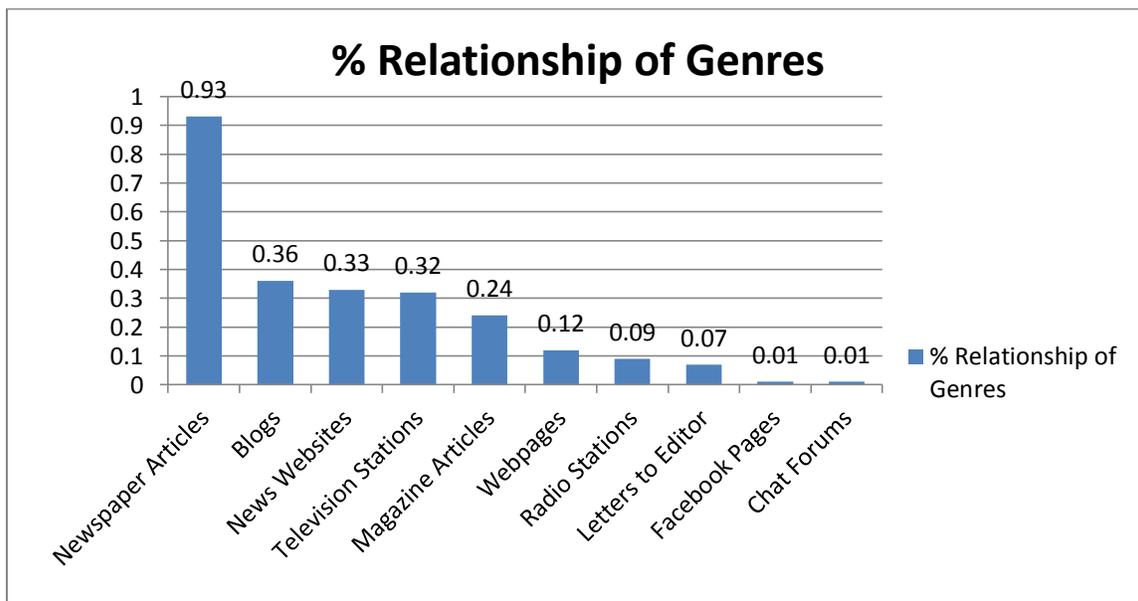
[bloser.com/history](https://www.zaner-bloser.com/history)

## Appendix

**Figure 1: Data Sorted by Genres**

Identifiable Genre	# of Data Pieces	% of Total Data
Comments on Articles	10,492	97.53
Newspaper Articles	100	0.93
Blogs	39	0.36
News Websites	35	0.33
Television Stations	34	0.32
Magazine Articles	26	0.24
Webpages	13	0.12
Radio Stations	10	0.09
Letters to Editor	7	0.07
Facebook Pages	1	0.01
Chat Forums	1	0.01
Total # of Genres: 11	10,758	100%

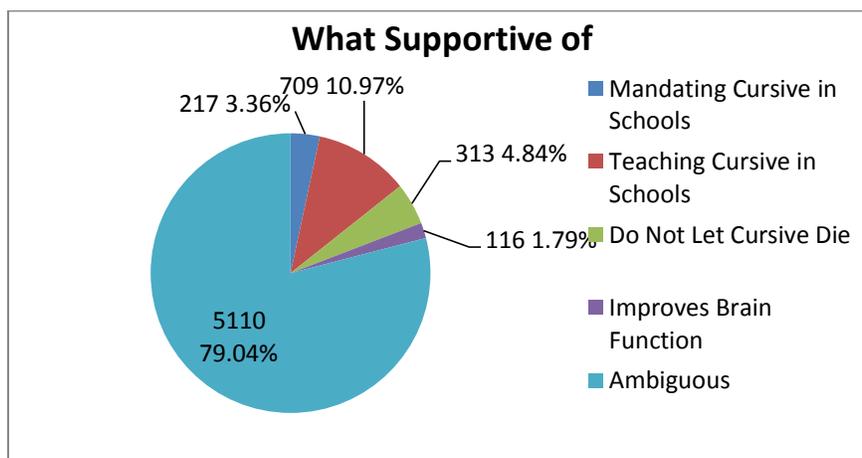
**Figure 2: Percentage Relationship of 10 Genres**



**Figure 3: Supportive/Non-Supportive by Genre**

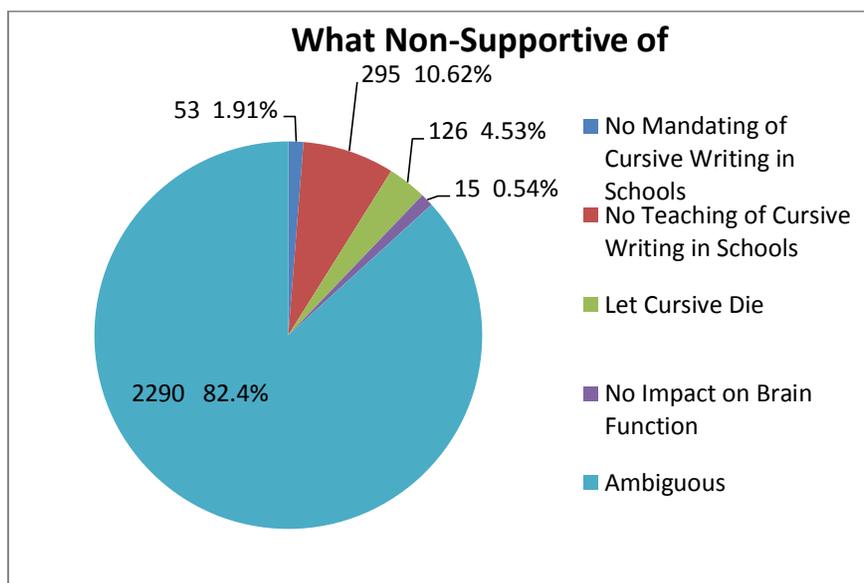
Identifiable Genre	# of Data Pieces	# in Support	# not in Support	Unrelated*
Comments on Articles	10,492 – 1,514 unrelated = 8,978	7,365 – 1,091 unrelated = 6,274	3,127 – 423 unrelated = 2,704	1,514
Newspaper Articles	100	71	29	NA
Blogs	39	28	11	NA
News Website	35	21	14	NA
Television Station	34	27	7	NA
Magazine Articles	26	20	6	NA
Webpages	13	9	4	NA
Radio Stations	10	8	2	NA
Letters to Editor	7	6	1	NA
Facebook Pages	1	1	0	NA
Chat Forum	1	0	1	NA
Total # of Genres: 11	9,244	6,465	2,779	1,514

\*The unrelated comments consist of comments that stray from the topic of cursive writing, and therefore are omitted from the total number of comments. N/A = not applicable.

**Figure 4: Objects in Support of**

**Figure 5: Comparison of Genres to Supportive Themes**

Genre and # of data pieces in support	Teaching	Mandating Teaching	Not Let Cursive Die	Improve Brain Function	Ambiguous
Comments on Articles – 6,274	650	159	271	84	5,110
Newspaper Articles 71	23	24	18	6	0
Blogs 28	9	2	9	8	0
Letters to Editor 6	2	0	4	0	0
Magazine Articles 20	7	6	2	5	0
Webpages 9	5	0	1	3	0
Facebook Pages 1	0	0	1	0	0
Television Station 27	6	13	4	4	0
Radio Station 8	2	4	1	1	0
News Website 21	5	9	2	5	0
Chat Forum 0	0	0	0	0	0
<b>Total 6,465</b>	<b>709</b> 10.97%	<b>217</b> 3.36%	<b>313</b> 4.84%	<b>116</b> 1.79%	<b>5,110</b> 79.04%

**Figure 6: Objects in Non-Support of.**

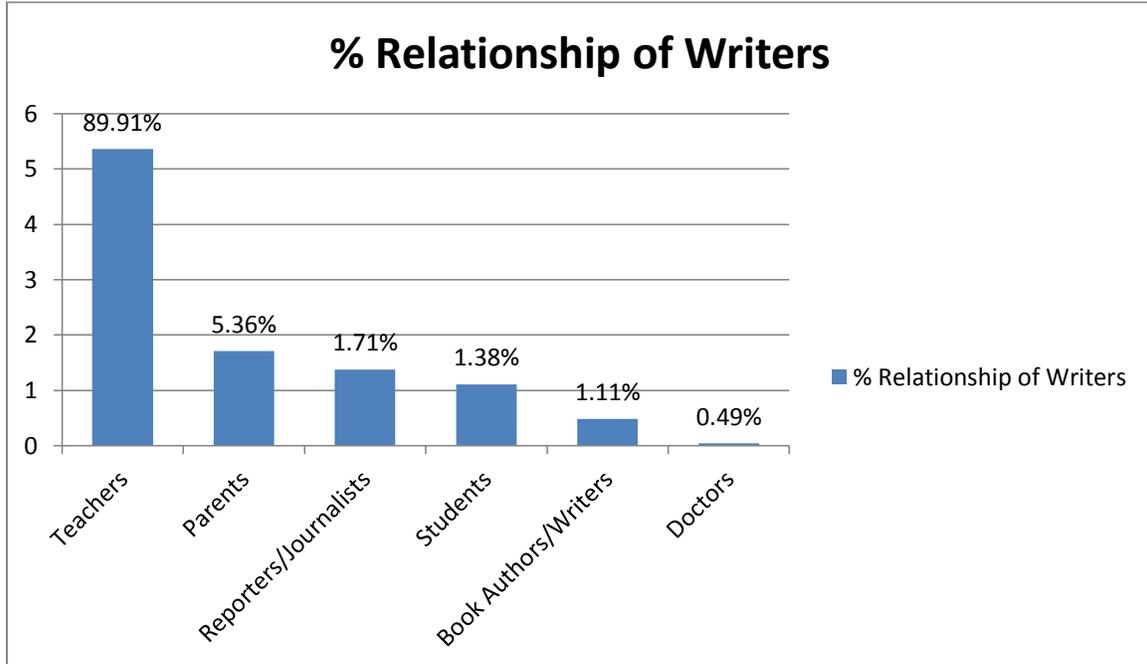
**Figure 7: Comparison of Genres to Non-Supportive Themes**

Genre and # of data pieces in non-support	No Teaching	No Mandating Teaching	Let Cursive Die	No Impact on Brain Function	Ambiguous
Comments on Articles – 2,704	246	45	109	14	2,290
Newspaper Articles 29	21	2	6	0	0
Blogs 11	4	5	2	0	0
Letters to Editor 1	0	0	1	0	0
Magazine Articles 6	3	0	3	0	0
Webpages 4	3	0	1	0	0
Facebook Pages 0	0	0	0	0	0
Television Station 7	4	1	2	0	0
Radio Station 2	2	0	0	0	0
News Website 14	11	0	2	1	0
Chat Forum 1	1	0	0	0	0
Total 2,779	295 10.62%	53 1.91%	126 4.53%	15 0.54%	2,290 82.4%

**Figure 8: Data Sorted by Writers**

Identifiable Writers	# of Data Pieces	% of Total Data
Identity Unknown	9,676	89.91
Teachers	577	5.36
Parents	184	1.71
Reporters/Journalists	149	1.38
Students	119	1.11
Book Authors/Writers	53	0.49
Doctors	4	0.04
Total # of Writer Types: 7	10,762*	100%

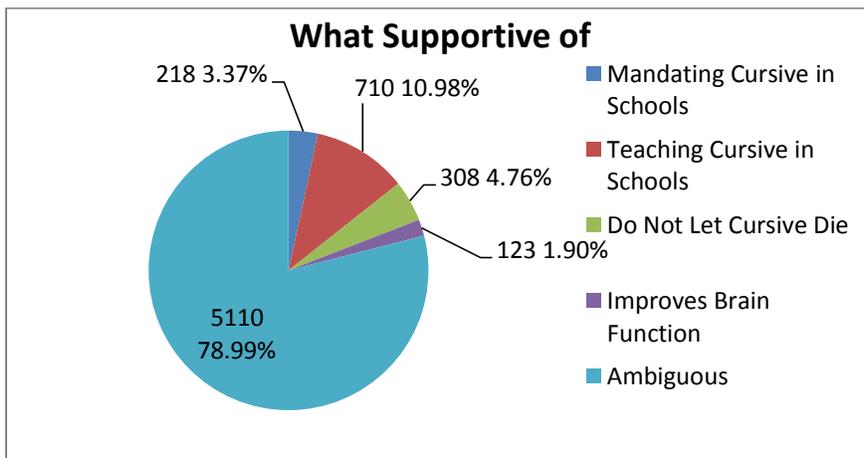
\*This number is four greater than the total number of individual data pieces for genre because four pieces of data had more than one author type, and therefore were counted twice.

**Figure 9: Percentage Relationship of Identifiable Writers****Figure 10: Supportive/Non-Supportive by Writer**

Identifiable Writers	# of Data Pieces	# in Support	# not in Support	Unrelated*
Identity Unknown	9,676-1,514 unrelated = 8,162	6,765-1,091 unrelated = 5,674	2,911-423 unrelated = 2,488	1,514
Teachers	577	395	182	NA
Parents	184	140	44	NA
Reporters/Journalists	149	114	35	NA
Students	119	110	9	NA
Book Authors/Writers	53	34	19	NA
Doctors	4	2	2	NA
Total # of Writer Types: 7	9,248	6,469	2,779	1,514

\* The unrelated comments consist of comments that stray from the topic of cursive writing, and therefore are omitted from the total number of comments.

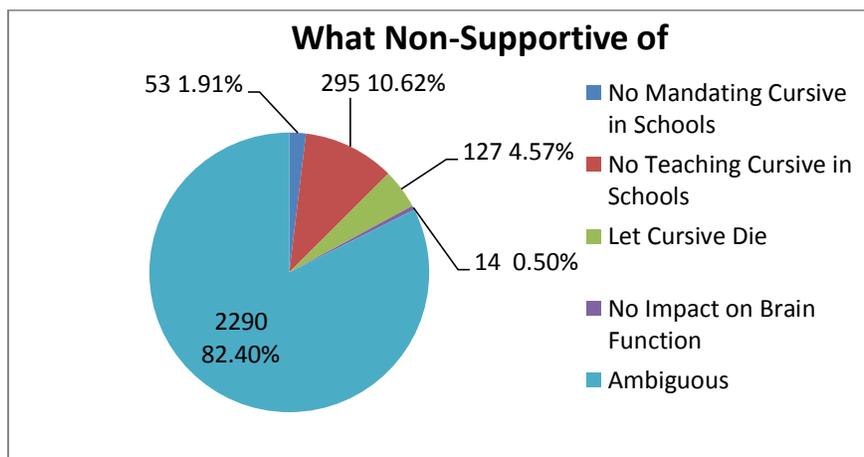
**Figure 11: Objects in Support of**



**Figure 12: Comparison of Writers to Supportive Themes**

Writer Types and # of data pieces in support	Teaching	Mandating Teaching	Not Let Cursive Die	Improve Brain Function	Ambiguous
Identity Unknown 5,921	453	55	212	91	5,110
Parents 26	3	0	22	1	0
Reporters/Journalists 114	28	52	21	13	0
Teachers 326	210	110	2	4	0
Book Authors/Writers 29	15	1	1	12	0
Doctors 2	0	0	0	2	0
Students 51	1	0	50	0	0
Total 6,469	710 10.98%	218 3.37%	308 4.76%	123 1.90%	5,110 78.99%

**Figure 13: Objects in Non-Support of**



**Figure 14: Comparison of Writers to Non-Supportive Themes**

Writer Types and # of data pieces in non-support	No Teaching	No Mandating Teaching	Let Cursive Die	No Impact on Brain Function	Ambiguous
Identity Unknown 2,563	158	12	89	14	2,290
Parents 6	0	0	6	0	0
Reporters/Journalists 35	26	2	7	0	0
Teachers 136	100	35	1	0	0
Book Authors/Writers 19	10	4	5	0	0
Doctors 2	1	0	1	0	0
Students 18	0	0	18	0	0
Total 2,779	295 10.62%	53 1.91%	127 4.57%	14 0.50%	2,290 82.40%