Factors Affecting the Quality of Handwriting among Grade Five Learners in Selected Public Primary Schools of Mongu District, Zambia

Sishwashwa Kapamba
Department of language and social Sciences Education, The University of Zambia, Zambia

David Sani Mwanza
Department of language and social Sciences Education, The University of Zambia, Zambia

Abstract
The study sought to establish factors influencing quality of handwriting among grade 5 learners in six selected public primary schools of Mongu district. Eleven (1 male and 10 females) grade five teachers and 60 grade five learners were purposely sampled for the study. The study employed a qualitative research design and used interviews and document analysis techniques to collect data. Thematic analysis was used to analyze data through the process of theme coding. The results revealed that the quality of handwriting among fifth graders was generally poor and below their grade level. The factors that influenced poor quality handwriting were: overcrowded classrooms leading to shortfall of desks, inadequate infrastructure, lack of handwriting teaching and learning resources, insufficient time allocated to handwriting, inadequate pre-service teacher training and lack of in-service orientation or Continuous Professional Development (CPD) opportunities on handwriting, lack of assessment and inadequate remediation policies, inadequate teacher knowledge in teaching handwriting skills and other writing instructional strategies, teachers’ own poor handwriting and teachers’ negative attitude towards teaching handwriting. Other factors included learners’ learning disabilities, learner absenteeism and lack of parental support. The implication of the study is that handwriting needs to be time tabled on official teaching schedule and teachers should use explicit instruction to teach handwriting to learners.

Keywords: quality of handwriting, language skill, education policy.


Introduction
Background
Handwriting is a prerequisite, an essential and practical language skill that requires various processes such as holding a pencil, writing the letters, activating prior knowledge, organizing, reviewing, and textualizing, (Berninger, et al. 2006). As the definitions suggests, handwriting skills entail specific skills and stages that enable a learner to write legibly, neatly, efficiently and accurately. For handwriting skills to be developed, there should be a coordination of neuromotor, cognitive and motor abilities, (Fellasufal & Mustadi, 2019). Sheffield (1996) further indicated that handwriting involves kinesthetic learning, which uses one of the earliest and strongest memory systems. Hence, the inability of one of the abilities may lead to one or more handwriting challenges. But, authentic researchers have studied the importance of handwriting for improving learners’ performance, and they have proved that using the hand in writing activates many regions in the brain that are related to memory and comprehension.
In Zambian education system, handwriting was fully taught as a separate lesson at lower primary in the 1970s up to mid-1980s, (MoE, 1972) just like in the United States where it was once taught in schools as an individual lesson receiving a separate grade on a child’s report card (Blazer, 2010). Currently handwriting is embedded in literacy lessons where it is also taught in the early grades of primary education where foundational skills are presented in order to help learners succeed in their academic. The purpose of teaching handwriting skills to early grade learners is to enable them learn, practice and develop legible, speed, neat and accurate handwriting as they proceed to upper primary, (MoE, 1972). Graham et. al., (2000) further indicated that handwriting skill introduces learners to writing so that they secure letter and word forms in long term memory, for legibility. Therefore, quality handwriting is a skill characterized by legibility, speed, neatness and efficiency.

However, over the last decades, and more recently since the adoption of the ‘Educating our Future,’ an education policy which emphasizes on initial literacy (with more emphasis on reading), regrouping of related subjects into learning areas and technology, influenced the transitional handwriting instruction in the early grades to diminish drastically (MoE, 2000., Matafwali, (2005); MoE. 1996; MoE, 2013). The changes on educational policies influenced handwriting to have low status and profile in literacy education in Zambia and in the recent years has attracted little attention from teachers, policy makers or researchers into mainstreaming educational processes despite its contribution to academic achievements, (Medwell and Wray, 2008). Other scholars, argued that despite the shift away from handwriting and towards typing and standardized testing, having a wide range of writing skills – from the basic production of letters, shapes and numbers to quality handwriting is positively linked to academic performance (Dinehart and Manfra, 2013; Feder and Majnemer 2007).

Due to misconceptions about handwriting, many researchers and scholars in the Zambian education system have primarily focused on assessing reading levels among early graders, neglecting handwriting, Matafwali, (2005). This is an implication that handwriting has attained low status and profile in literacy education in Zambia. Hence, the decline in handwriting quality among Zambian primary school learners has led to difficulties, prompting researchers to investigate the factors influencing handwriting quality among fifth graders in six selected public primary schools in Mongu district.

**Statement of the Problem**

Over the last two decades, and more recently since the adoption of the ‘Educating our Future,’ an education policy which emphasizes on initial literacy (with more emphasis on reading), regrouping of related subjects into learning areas and technology, influenced the transitional handwriting instruction in the early grades to diminish drastically (MoE. 1996; MoESYTEE, 2000., Matafwali, (2005); MoE, 2013). These changes on educational policies made handwriting to have low status and profile in literacy education in Zambia. Hence, the teaching of handwriting in the recent years has attracted little attention from teachers, policy makers or researchers into mainstreaming educational processes despite its contribution to academic achievements (Medwell and Wray, 2008). Phiri (2015) revealed that the grade 4 learners’ handwriting was generally poor and below the grade level. Therefore, this study intends to establish the factors which contribute to poor handwriting among primary school learners. Thus, as a question, the research problem informing this study is: What factors affected the quality of handwriting among the grade 5 learners in the primary schools of Mongu District?

**Research Objectives**

The objectives of the study are to:

1. Establish teachers’ views on the quality of handwriting among grade five learners in Mongu district.
2. Establish factors that affect the quality of grade five learners’ handwriting in selected primary schools of Mongu district.
Methods and Materials

The study was purely qualitative and used interviews and document analysis as data collection techniques (Milingo, 1999; Milingo, 2004; Milingo, Changwe and Hara-Zulu, 2021). The study was conducted in six (6) primary schools which were evenly sampled from urban, sub-urban and rural public primary schools of Mongu district. A sample size of Seventy-one (71) participants consisting of eleven (11) teachers and sixty (60) learners were purposively sampled from six public primary schools. Thereafter, data was analyzed using thematic analysis. For authenticity purposes, verbatim were used to represent the coded data in relation to the research question.

Data Presentation

The study “Factors influencing quality of handwriting among grade five learners” was conducted in six public primary schools of Mongu district. The study results have been organized according to the following thematic categories:

Teachers’ Views on Their Perceived Good Quality of Handwriting by Their Learners

Some teachers indicated that some learners had good handwriting. They explained that some learners’ handwriting was legible and were able to copy the teacher’s work from the board correctly. For instance, teacher A from Mango school indicated:

“Some of my learners in my class have good handwriting. I can say three quarters of the pupils have good handwriting and only one quarter is struggling.”

Teachers B from orange school also stated:

“My learners’ handwriting is legible.”

Teacher C gave the following explanation:

“If I am to use scale 10, I would say, 5 are able to write legibly while the other 5 are unable. So I say the handwriting for the grade five learners is not all that bad. This is because they are able to write legibly as they were able to copy from the teacher’s board work.”

Five of the interviewed teachers indicated that the learners’ handwriting was good. This would be further confirmed with the sampled learners’ books analyzed during document analysis and which will be presented later in this section.

Teachers’ Views on Their Perceived Poor Quality of Handwriting among Grade Five Learners

Most teachers reported that the quality of learners’ handwriting was generally poor. They explained that some learners were mixing upper and lower case letters, could not differentiate the formation of ascenders and descenders, no more or less spacing between words, and omission of some letters, reversal and mirror writing of letters. The following were some of the responses from teachers A, B and C:

“most of the learners’ handwriting is bad as they are mixing capital letters with small letters and they were not leaving spaces between the words in the sentence.” (Teacher A)

“My children’s handwriting is not very good because most the learners do not know how to write; some letters are left out as they are writing.” (Teacher B)

“The learners’ handwriting was bad as they were unable to leave spaces between words and very slow in writing.” (Teacher C)

Meanwhile, Teacher A from watermelon school stated the following:

“Our learners have a problem with letter formation. They write ‘m’ as ‘w’, ‘p’ as ‘q’ or ‘b’ as ‘d.”


From the above results, six of the interviewed teachers revealed that the quality of the learners’ handwriting at grade five was generally poor. Later, findings from documents analysis based on learners’ actual writing is be presented below to complement the interview data.

Presentation of Findings on the Quality of Handwriting from Document Analysis

The legibility of handwriting was analyzed using document analysis checklist with open ended phrases. This involved analyzing learners’ books to check how they wrote. This was useful because it provided an objective basis for judging the legibility of handwriting by grade five learners. A total of 60 books were collected. However, extracts from only 3 of them are presented.

Learners’ Quality of Handwriting: Document Analysis

Some of the actual characteristics of the quality of handwriting for some of the grade five learners are; as presented in the samples. These characteristics overlap on each sample depicting; the style, form, alignment, upper and lower case letters, ascenders and descenders, shape and size, slanting and directionality, messiness, mirror and reversal letter.

**Ascender and descender letter formation, spacing, shape and size, slanting and directionality**

Figure 1. Pupil 5 from Apple School on Ascending and Descending Letters
Upper and lower case letters formation, Alignment, shape and size

Figure 2. Pupil 4 from Mango School on Upper and Lower Case Letters, Alignment, Shape and Size Mirror and Reversal Handwriting, Messiness and Form
Factors Influence the Quality of Handwriting among the Fifth Grade Learner

The data was collected through interviews with teachers and the results have been presented thematically as follows:

a. Developmental capabilities factors.

The study revealed that developmental aspects of learners was influencing their quality of handwriting. The researchers asked what influenced the quality of grade 5 learners’ handwriting at each of the sampled
schools. Teachers’ responses included age, development of motors skills, learning capabilities and going through transitional stages of development or grades influence the legibility of handwriting. Teacher C, a female teacher from Orange school attested as follows:

“when learners have fully developed their gross, fine, cognitive, visual and perception motor skill, tend to have good handwriting. This is because their muscles were flexible to enable a learner have good posture, hold the pencil correctly and see correct letters as they are engaged in writing. This is attributed to age as one grows old (move from one age to the other) the handwriting also improves,”

Teacher C from Nut school explained:

“If learners pass through all the developmental stages or grades, they are able to acquire all the necessary skills to have good handwriting. Learners are able to start from scribbling, tracing, pattern writing, letter formation and do complex writing.”

b. Background knowledge factors.

Out of the eleven (11) teachers interviewed, three (3) of them indicated that background knowledge on handwriting influences its quality. They expressed that having good background of handwriting knowledge enables learners to have legible handwriting. For example, Teacher A from Orange school indicated:

“If learners had good background knowledge from lower primary where handwriting is taught, they tend to have legible handwriting as they come to grade 5.”

In addition teacher A from watermelon primary stated:

“Good foundation of learners on how to learn to write enables them acquire good handwriting skills so that they have legible handwriting. This is because how learners were taught at lower primary impact the quality of handwriting at upper primary.”

Another teacher C from Nuts school stated as follows:

“a good background knowledge where learners are first introduced to pre activities such as writing in the sand, pattern writing, tracing, molding, directionality and discrimination help learners acquire the skills that enable them to have good handwriting.”

Teachers expressed that good background knowledge on how to write contribute positively or negatively to having legible handwriting at upper grades. This Knowledges also enables learners to be either good or bad readers which further may affect their academic success.

c. Pedagogical factors

The researcher noted that few teachers revealed that how handwriting is taught affected its quality either positively or negatively. They indicated that, if the instructions are clear and learners are able to follow them, then they will be in the position to develop good handwriting. For instance, teacher A from Watermelon indicated:

“The way the teacher teaches handwriting influences its quality. I mean if the teacher teaches it very well by following how it should be taught, then learners are able to acquire legible handwriting.’

Another teacher A from Mango and teachers B from Nuts school indicated:

‘Understanding how to write (following instructions) leads to the acquisition of good handwriting. This deals with the guidance the teacher gives during writing time.’

Teacher B from Banana school aligns with teachers from Mango and Nuts schools by stated:

‘Frequent guidance and emphasis on how to write enables learners to have good handwriting.’
d. Mechanism of handwriting

From the teachers’ interview, it was found that some teachers stated that key aspects of handwriting had an influence on learners’ handwriting. They indicated that acquisition of handwriting key aspects such as, correct sitting posture, writing tool gripping, book positioning and letter formation (of upper and lower case, ascending and descending letters). Three quarters of the interviewed teachers indicated that the above aspects of handwriting if performed correctly they tend to produce good quality of handwriting.

Teachers A and B from Orange and teacher B from Mango school indicated:

‘Correct pencil gripping where learners use the thumb and pointing finger to hold the pen or pencil with less pressure exerted on it enables learner to produce good quality of handwriting.’

While teachers B from Orange and Mango, stated:

‘Correct sitting posture where the feet is flat on the floor, sitting in a natural manner, directly in front of the writing surface enables learners to write correctly.’

Teacher B from Orange and Nuts school stated:

‘The placing of the book in the correct position influences the quality of handwriting.”

Teacher A from Nuts stated:

‘The correct formation of ascending and descending letters contribute to good quality handwriting. As learners are writing, how they form different types of letters mostly affects the quality of handwriting. They should also follow lines as they are writing.”

e. Teacher’s own handwriting as a contributing factor

The interviewed teachers indicated that teachers with good handwriting are a model to learners. The expressed that when the teachers handwriting is legible learners will write legibly too. As indicated by teacher A from Banana school;

‘Teacher’s knowledge about handwriting and models of good handwriting on the board makes learners to copy the same handwriting.”

In align with teacher A from Banana school, teacher A from Nuts school stated:

‘Learners normally imitate or copy the teacher’s handwriting.”

Hence, below are two samples showing Teacher’s handwritings as references on how a teacher influences the learner’s handwriting.

f. Teacher’s Subject Knowledge

Teacher’s knowledge on handwriting is another factor that affects learners’ handwriting. Some teachers revealed that if teachers knew how to form letters, demonstrate good handwriting and have the knowledge on how to teach handwriting, they contribute positively to the good quality of handwriting. Some indicated that teachers’ poor handwriting makes learners to copy the same handwriting. Teacher B from Nut primary stated:

‘Some teachers still have poor handwriting, how do you expect them to model or teach handwriting? This also negatively impacts the quality of handwriting among the learners.”

Another teacher A from Banana school indicated:

‘Some of us teachers were not well trained at the college on how to teach handwriting, so I remember 2 years ago when I was teaching grade one, I was just telling them to copy from the learner’s book.”

The findings show that some teachers were not conversant with handwriting. Therefore, teacher’s handwriting knowledge either contributes positively or negatively to the quality of learners’ handwriting.
Figure 4. Teacher A’s Handwriting as a Model from Orange Primary School

Figure 5. Teacher's Handwriting as a Model from Nut Primary School
g. Learners Intelligence.
The findings in this study noted that learners’ abilities affect their performance in handwriting. Some interviewed teachers stated that learners’ intelligence influences their quality of handwriting they produce. For instance teacher A from Banana school indicated:

“learners whose performance is good, have good handwriting too.”

Other teachers such as teacher C from Orange school revealed:

“it was noted that our leaners who have interest in school do well and have good handwriting. This is because they know why they are in school.”

The above expressions indicate that learners’ intelligence or learning abilities had an influence on the learners’ handwriting.

h. Learner Attendance.
Attendance was one of the factors noted to influence the quality of handwriting among the grade five learners during teacher interview sessions. Some of the interviewed teachers had an impression that learners who attended lessons regularly seemed to improve on their handwriting. As noted from teacher A at Banana primary who indicated the following:

“When a child attends lessons so often, that learner likes school and you will find that his/her performance improves. Even the teacher will make sure that the child is helped to learn. In doing so, even the child’s handwriting will improve”.

Another teacher C from Mango primary stated:

“I think continuous attendance of lessons positively impacts learners’ performance including the quality of handwriting. Because as learners continue attending lessons they practice writing which improves their handwriting.”

The above expressions indicates that regular lesson attendance has an impact on the quality of handwriting among the fifth grades.

Another factor that influenced the poor quality of handwriting among grade 5 learners is;

i. Learning Disability

Other teachers stated that learning disabilities such as mirror and reversal writing, slowness, mental illnesses and lameness influence poor quality of handwriting. Teacher B from Orange primary revealed:

“In my class I had two pupils with physical disability and slow learner. The one with physical disability lost a right thumb in an accident, so the child finds difficult to write using the left hand. While the slow learner had difficulties to follow instructions and copying board work. These challenges influenced their poor quality of handwriting.”

Another teacher B from Banana primary stated:

“Some of my learners have learning difficulties of letter formation. They find it difficult to write letters m, w, p, q, b and d. These learners are giving me a problem as they are slow learners. Their handwriting is extremely bad.”

During the interviews, it was discovered that children with special education needs had challenges with handwriting, too. Hence, disability influenced the poor quality of handwriting among the grade 5 learners.

While some teachers reported that there were students with good handwriting quality, the researchers found evidence of poor handwriting among fifth graders. Document analysis revealed that only a small number of learners had legible handwriting, and they still faced challenges with key aspects of penmanship. Interestingly, these findings contradicted what the teachers had indicated during the interviews.
Data Analysis

The study identified several factors contributing to poor handwriting quality among fifth-grade learners in the sampled schools. While some factors were minimally associated with school and classroom conditions, such as overcrowding and inadequate furniture in public schools, the lack of handwriting teaching and learning resources was also evident. Additionally, teacher-related factors played a more significant role, with some impact on learners, parental involvement, and policy and curriculum considerations. These identified factors critically influenced the overall quality of handwriting.

Handwriting performance involves the coordinated use of various cognitive (e.g., intellect, attention), sensory, and psychomotor behaviors (Abott & Berninger, 1993). Additionally, social factors, such as handedness constraints, and environmental factors, like the literacy curriculum, impact handwriting quality (Ziviani & Wallen, 2006). Notably, handwriting demands cognitive effort not only during early literacy stages but also for students across all grade levels (Feder and Majnemer (2007). Fluent writing at an appropriate speed allows effective expression of feelings and thoughts throughout the learning process. Studies suggest that handwriting quality improves more rapidly in the initial years of learning and develops more gradually in later stages (Karsldottir & Stefansson, 2003; Bara & Morin, 2013).


However, after Grade 4, letter shapes may deteriorate, resulting in ambiguous forms. Additionally, children with handwriting difficulties often develop negative writing experiences, including frustration, reduced self-efficacy, and poor motivation. From a social-emotional perspective, students who struggle with writing are less likely to produce detailed and comprehensive material. Learners who are easily distracted or have poor attention may also find handwriting challenging due to forgetfulness about letter formation.

The study findings suggest that negative attitudes, lack of interest, and a lack of seriousness among some fifth-grade learners adversely affect their handwriting quality. Additionally, the presence of learning disabilities significantly contributes to poor handwriting. Teachers reported that conditions such as mirror and reversal writing, slowness, illnesses like stroke, and physical disabilities were associated with subpar handwriting. The quotes align with Blote and Hamstra, (1991) who noted that, poor visual spatial skills and poor fine motor skills were intrinsic factors that could make it difficulty copying a word from the chalkboard or text book by some learners. Indicating that deficits in these areas can affect the learners’ visual-motor integration and eye-hand coordination. Therefore, learners with visual-spatial problems had decreased awareness regarding the spatial arrangement of letters, words or sentence on the page. These further led learners to fail to stay on the line when writing, they may also overshoot or under shoot the lines and /or letters may be poorly aligned on the line of the book. It was noticed in the samples above that, some learners wrote words and sentences that were suspended in air or some on the line due to visual spatial difficulties. This point is also supported by Haring and schiefelbusch, (1982) who also observed that some learners were unable to write words from memory or dictation due to poor visual memory, because some learners failed to remember. Therefore, special education needs have negative impact on the acquisition of handwriting skills leading to poor handwriting if intervention are not there. Notwithstanding the above, it can also be argued that the use of English instruction among learners who mostly have not broken through to English instruction could also impact their ability to copy accurately. Thus, it is likely that the [physical limitation of learners are worsened by linguistic weaknesses]. This is the reason why most studies have suggested that diverse and multilingual learners need multilingual language practices to help them understand both the content and the instructions during class activities.
Further, the results revealed that learners’ absenteeism was noted during the study that it contributed to handwriting challenges. The findings of the study showed that learners who were regular absentees lagged behind in performance. Aligning with the result, Keitheile and Mokubung’s (2005) findings in Botswana revealed that absenteeism is one of the most frequently reported pupil related factors contributing to the learner’s performance. The implication is that learners who were regular absentees received inadequate instruction hence were likely to have handwriting challenges as compared to their counterparts. Thus, absenteeism from school led to missing lessons which further affected their handwriting negatively.

Additionally, changes in education policy and curriculums influenced the quality of the grade five learners. The integration of subjects, time allocation to handwriting, focus on reading, lack of handwriting teaching and learning material such as books, desks and free education negatively impacted the quality of handwriting. According to Matafwali (2005), the main purpose of these literacy programmes was to improve reading skills as further supported by (MoE, 1996). Therefore, lack of adequate programmes within the school curriculum aiming at enhancing the teaching of handwriting does not encourage teachers to teach handwriting adequately. Koenke (1986) aligned with the statement as he indicated that handwriting was transformed into an aspect of the language arts curricula where learners were briefly introduced to the letters in combination with language or phonics which left students without guided instruction on letter or number formation. Blazer (2010) also noted that, handwriting in the United States was once taught in schools as an individual lesson receiving a separate grade on a child’s report card. Yet, over the last decade, and more recently since the adoption of the Common Core State Standards the importance of handwriting in elementary education had diminished significantly, (Carpenter, 2007; Pressler, 2006). Aligning with other literatures, Dolin (2016) noted that in the past, California’s education system had a separate handwriting curriculum where children were taught handwriting for about 75 minutes of class time, daily. Learners practiced writing while the teacher provided individual feedback and instruction (Gerszberg, 2003). These literatures indicated that handwriting was embedded in literacy where it received less attention. Due to less attention given to handwriting, there was poor quality of handwriting productivity among the sampled grade five learners written work, Sheffield (1996).

Additionally, most public primary schools have bigger numbers of enrolment which cause scarcity of teaching and learning materials, furniture and infrastructure. This made schools to have more than one session verses limited classroom space which lessened the time for teacher-pupil contact time in schools. These results are supported by Kelly (1999:154) who stated that,

“double or triple sessions and tied timetables found in most government schools in Zambia, worked against quality teaching-learning processes”.

The Zambian government’s commitment to the Universal Declaration of Human Rights of 1948 which include article 26 which states,

“everyone has the right to education, which shall be free, at least in the elementary and fundamental stages, and which shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms” (NIF, 2007: 20).

The findings further indicate that educational policies impact the teaching and learning processes either positively or negatively.Aligned with the factor on the use of resources, EFA (1992) advises that learning resources are key ingredients for learning. Learning materials that are known to enhance pupil achievement significantly are text books and teachers’ guides. Additionally, Dean (1997) indicated that in designing and producing teaching and learning materials; we need to remember that the materials produced must be motivating to the learners and, not so easy that there is no challenge. Findings from other studies in Kenya have also revealed that pupils who had most learning resources such as pencils, pens, exercise books, notebooks, erasers and rulers were estimated to achieve better in reading than pupils who had hardly any learning materials.
The views stated in the paragraphs above seem to suggest that teaching and learning materials play a vital role in the improvement of education. However, findings from interviews in this study showed that, all schools did not have handwriting books but text books were available with few story books. While the researchers may agree with the views above, it can still be argued that non availability of resources in schools cannot be heavily depended on the MoE. It cannot be used as an excuse for teachers’ failure to pay attention on learners’ handwriting challenges. Schools will always have some materials, and if they are inadequate, teachers can either obtain or generate them from the local community through improvisation.

Therefore, rather than putting the blame on the MoE for not constantly supplying teaching and learning materials in schools, teachers too, should be creative enough so that they are able to obtain the teaching and learning resources from the surrounding environment such as planks, card boxes, posters, magazines, newspapers, and pamphlets from other disciplines. The researchers therefore tend to differ with the teachers’ view that the MoE is obliged to provide all the teaching and learning materials for them to use in delivering handwriting lessons. Instead, teachers should make sure that they use materials obtained from many sources as this will expose pupils to a wide range of writing materials. However, this can happen only if teachers are motivated enough to teach the curriculum.

The conclusion drawn from the quotes is that access to schooling and equity issues seem to be more pronounced in educational policy at the expense of quality. The argument here is that sending children to school is good as the government is just aiming at achieving EFA in terms of increased enrollments through the provision of additional educational facilities or schools and the expansion of the existing ones as stated in (NIF, 2007). While not thinking about what kind of education children would receive, is irrelevant. It is only hoped that the process of provision of desks had been fulfilled by the end of 2023 as promised by the current government of UPND. Thus, some policies if not strategically implemented they tend to have a negative influence on the quality of education provided. According to this study, the results have revealed that the policy impacted the quality of handwriting among fifth grade learners in the sampled schools as depicted in samples 1 to 3. UNESCO (2006) further indicate that a substantial number of children between the age of 15 and 24 in Sub-Saharan countries have not mastered basic literacy skills and, the majority of pupils at primary schools are failing to read and write at the expected levels - due to weak school systems in terms provision of resources.

Teacher factors also contributed to poor handwriting among grade five learners. The teacher factors included; lack of handwriting knowledge and pedagogy, teachers’ own handwriting, lack and/or inadequate pre-service training and orientation programmes for in-service teachers. This study established that most teachers had insufficient training which affected the effective teaching of handwriting skills. For instance, the type of training offered to teachers at the inception of the PRP and PLP was not sufficient. Mubanga (2010) indicated that during literacy trainings, teachers were only subjected to short orientation programmes in form of workshops organized at district, Zone and school levels. The training sessions only ran for less than one week. In the PLP, the teaching of handwriting was not given much prominence as compared to reading. Therefore, learners with handwriting difficulties are rarely attended to by teachers since they could not determine the effectiveness of the strategies used (Hughes, et al. (2017). This trend made learners to perform more poorly in handwriting activities than they did in reading. Abreu et al., (2017) echoed on the same by saying, large variation was noted in the amount and type of writing instruction reported by teachers that automaticity was associated with the teaching of revising strategies but not with the teaching of handwriting. However, Berninger and Fuller (1992) suggest that handwriting instruction may be particularly challenging for students who lack foundational skills in writing. Dinehart (2017) and (Sassoon, (2003) recommended that during the training, pre service teachers must be trained to have excellent writing skills. Graham et al., (2007) and Hammerschmidt & Sudsawad (2004) also noted that the quality of handwriting among the primary school learners was influenced by explicit and systematic instruction, time allocation, teachers’ handwriting, attitude and knowledge of teaching handwriting.
The results also revealed that some teachers’ own handwriting influence learners’ quality of handwriting. Sample 1 and 2 of teachers’ samples exhibited letter formation, direction and movement, mixture of script and tailed style of handwriting, alignment and not differentiate ascending letters from descending letters. This made learners to imitate or copy the teacher’s bad handwriting. In teaching writing to students, the teacher should be a role model so that s/he can provide concrete examples. This is because the learner’s handwriting is the reflection of the teacher’s board work since they have a greater influence on the learners’ handwriting. This certainly requires the teacher’s writing skills. Thus, during pre-service training, teachers must be trained to have excellent handwriting skills.

For example, the depicted style of handwriting in the samples is appropriate to early learners and/or those with cursive handwriting challenges Bara & Morin (2013). Hence, the teachers were not considering the learner’s age and ability. This lack of consideration of learner’s age or ability can be attributed to teacher’s insufficient handwriting knowledge and pedagogy. Some teachers during the interviews indicated that among lower primary teachers, some were using cursive handwriting which also negatively caused poor handwriting among the learners. In alignment, Graham, et al., (2007) stated that, handwriting is a skill product that is regarded as being unique to each individual. The uniqueness of the combination of letter forms used (style) to produce the handwriting that vary from person to person depending on a number of factors. This is a natural variation and an intrinsic quality of handwriting. From such an indication, the researchers may agree with the assertions made by teachers that teacher’s knowledge on handwriting pedagogy is inadequate. This is because if teachers were conversant with handwriting pedagogy, they could be teaching according to the age and/or (grade) ability levels of the learners. Thus, script or cursive handwriting was going to be used appropriately according to grade level and ability. EFA (1992) also noted that when teachers lack sufficient subject knowledge to teach pupils adequately in one particular subject area, pupils are disadvantaged.

According to the findings, inadequate handwriting knowledge and skills among teachers led to a lack of suitable handwriting activities for learners. Insufficient textbooks and instructional materials exacerbated this issue, resulting in a mismatch between learners’ abilities and lesson content related to handwriting. Dean (1997) emphasized the importance of tasks aligning with children’s learning needs—challenging enough but within their capacity. The study also highlighted that teachers’ lack of handwriting expertise negatively impacted learners. Inadequate pedagogy hindered teaching according to learners’ abilities and age. Notably, the handwriting style observed in teachers’ Samples 1 and 2 at the fifth-grade level featured print and tailed handwriting rather than cursive. Therefore, handwriting instruction should consider learners’ age, grade, and ability levels, as these factors significantly influence handwriting quality.

The results further revealed that children’s home environment/background had an influence on the learners’ handwriting. They said that some learners come from homes where parents and other relatives do not have literacy skills. Hence, learners lack knowledge on how to write and no assistance is rendered to them at home when given homework. This entails that home environment has an impact on the child’s quality of handwriting. The implication is that, a poor home environment that lack learner support and literacy materials makes children not to acquire literacy skills inclusive of handwriting. Therefore, lack of parental/community involvement in the child’s education contributes to poor acquisition of handwriting skills. This is because there should be enough time to practice writing even at home. Thus, parents, siblings, care givers or guardians are key players in the education of the child.

The above factors are further categorized as internal and external factor as well as socio-emotional and physical factors. Age, development, attitude, interest, intrinsic motivation among others are socio emotional or internal factors. While, school, teachers, curriculum, home environment and others are external or physical factors. Hence, the presented thematic findings from the study offer insights into the current state of handwriting among the grade 5 learners in the six public primary schools sampled in Mongu district. These findings may be revealing that the quality of handwriting is either prevalent or present in education systems around Zambia.
Conclusion

In conclusion, we would see that the results have highlighted a number of learner, teacher, parental, school and policy factors that contribute to fifth graders’ poor quality of handwriting. Among them are: Absenteeism, negative attitude towards school (writing), learning disability and poor handwriting background / home environment inclusive of parental involvement, teachers’ own handwriting, knowledge and pedagogy, inadequate time allocated to handwriting. The themes identified in this study have a strong line of continuity from the earlier study by Phiri (2015) on the nature and prevalence of writing difficulties among grade four learners in Lusaka district. These findings imply that if no intervention is put in place, there is a high probability that the learners will continue to demonstrate poor handwriting.

References


