PROJECT PAGSULAT: A TOOL TO ENHANCE WRITING SKILLS OF GRADE ONE PUPILS

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ABSTRACT

This study aimed to develop a tool to enhance the writing skills of Grade One pupils. Delimited on the studies of the following authors: Graham, (2010); Datchuck, (2016); Tsang, (2004) and Roberts et al. (2018), this study focused on the pupils who were starting to learn how to handwrite. The researcher reviewed and analyzed published studies about handwriting.Through this research, eight key elements that are essential to a child's ability to learn handwriting were uncovered: knowledge of the alphabet, knowledge of the formation of letters, development of Hand Motor Skills, proper hand grip and posture, tracing ability, Visual Perceptive Skills, acknowledging mistakes and differences of forms, and repetition as a corrective action. It is also worth noting that each of these elements is correlated with one affecting the other if not appropriately acquired. The tool was called PROJECT PAGSULAT.

Keyword: *Handwriting, Arm Movement2, Pencil Grip3, Air Writing4, Tracing5, Visual Perceptual Skills6, Perceptual Trace7, Pagsulat8*

1. INTRODUCTION

For school-aged youngsters, handwriting is a crucial skill. Handwriting problems can affect a child's ability to participate fully in school and play activities, potentially resulting in poor academic achievement and low self-esteem. It is, therefore, a must that a teacher teaches the skill of handwriting, which is one of the most significant abilities in a student's academic life.

Additionally, because handwriting is a fine motor skill, teachers must use effective instructional approaches to help children consolidate their handwriting skills through extensive practice (Blazer, 2010).[4] Moreover, in order for pupils to learn any style of handwriting, teachers must devote sufficient instructional time as well as time for students to practice their skills (Sharp & Brown, 2015).[19] Years passed by teachers still used the same methods they used to teach handwriting to improve the students who have difficulties writing. First-grade teachers apply the methods in the same previous order: repeating, overwriting letters, writing on the board, doing exercises by holding a student's hand, and overwriting dotted letters (Arslan, 2012).[2]

The benefit of handwriting can be invested in implanting the basics of academic writing from the elementary stages (Graham and Herbert, 2010).[10] Furthermore, according to Medwell et al. (2009)[16], training the hand in writing leads to the training of the memory, so that the hand and memory work together to generate good writing.

The aim of this study was to develop a tool to enhance the writing skills of grade one pupils in order to foster students' development with handwriting.

1.1 Theoretical Framework

This study was anchored on the Closed Loop Theory of Motor Learning by Jack A. Adams of the Department of Psychology at the University of Illinois in the year 1970. Adams proposed that motor learning proceeds through the refinement of perceptual-motor feedback loops. Consider the task of reaching for a glass. According to Adams, when one has little experience with this task, a crude first movement is made toward the glass, perceptual feedback indicates that the movement was not effective, then subsequent movements are performed to reduce the error between the perceived position of the hand and the perceived position of the glass. As practice continues, the perceptually defined reference condition for each hand position along the trajectory toward the glass becomes better suited to the completion of glass grabbing.

Adams (1976)[16] called this perceptually defined reference condition the *perceptual trace*. He argued that learning reflects the development of more adaptive perceptual traces as well as more adaptive capacities for generating movements that reduce errors between perceptual traces and actual outcomes. Adams (1976)called this view *closed-loop* theory. According to closed-loop theory, feedback should help people perform tasks more effectively. Feedback does, in general, aid skill acquisition. People learning new tasks who are explicitly told about their performance usually do better than people who are not told how well they have done. Such explicit, verbal feedback is called *knowledge of results* (KR). In one of the earliest demonstrations of KR, Thorndike (1927) showed that blindfolded subjects could learn to draw a line of fixed length if they were told "right" or "wrong" after each trial but not if they were told nothing (the no-KR condition). The closed-loop theory accounts for this result by saying that subjects developed an increasingly well-formed perceptual trace in the KR condition but not in the no-KR condition.

The closed-loop theory position has been roughly formulated as follows by Adams (1976). An intended movement is selected from long-term motor memory, where it resides as a memory trace. This trace determines the start of the movement. Its further performance is dependent on a continuous comparison between the memory representation of the residue of the same movement made on previous occasions, its perceptual trace, and kinesthetic feedback from the movement actually being made. An error signal resulting from this comparison acts as the stimulus for correction movements. The perceptual trace is gradually shaped by feedback information from repeated performances until, finally, it represents the sensory consequences of the correctly performed movement.

The development of handwriting benefits from the Closed Loop theory as handwriting is a motor skill that requires strong foundations and continuous practice. Children who are learning how to handwrite must have proper guidance and help in order to acquire the skill. Furthermore, there should always be the element of corrective feedback and repetition in order for them to master it. In this way, they can continue to improve at handwriting as they progress to higher levels of education.

2. METHODOLOGY

2.1 Research Design

The research design used in this study was a pure research design. According to Fomunyam (2020), this type of research is motivated by a desire to expand knowledge and aspires to acquire knowledge with no other motive but to learn. The primary aim of this research approach is to gather information to improve one's understanding.

2.2 Research Procedure

From the conception of the study, extensive search and collection of the relevant studies and literatures about handwriting difficulties, handwriting development, and ways to improve handwriting were done. From the collected works of literature, extensive reading and understanding were done to formulate basic concepts needed for the study. The researcher arrived at the study "Want to Improve Children's Writing?" by Graham (2010) which helped formulate the general idea for the tool. Personal consultations were done to teachers who have experienced teaching handwriting to validate Graham's claim about how to teach handwriting. Other related concepts essential to the study are also provided.

Moreover, basic concepts and related studies were then collected and presented in the review of related literature. Afterward, the researcher underwent validation of the tools and activities developed through intensive checking by a grade one teacher with ten (10) years in service and a Master Teacher in English. Finally, the researcher created

eight (8) steps that help meet the key concepts identified. The search and formulation of activities to support the application of the tool then followed.

3. RESULTS AND DISCUSSION

The following steps are created to help improve the writing skills of learners after analyzing the related studies on the subject:

3.1 P-aniguraduhing alam at na kabisa ang bawat letra ng Alpabeto *(Ensure mastery of the alphabet letter)*

The teacher must consider his/her students' alphabet knowledge before teaching them the proper way of writing letters. Therefore, proper follow-up should be given to those pupils who are having difficulties determining alphabet letters. Roberts et al. (2018)[17] stated that preschoolers' ability to write individual letters is associated with their alphabet knowledge and phonemic awareness.
The teachers can use the given *alphabet knowledge checklist* below to know pupils if they can recite, name, and identify the 26-letters in the alphabet.

3.2 A-lamin ano ang galaw ng kamay sa pagsulat sa bawat letra *(Learn how the hands move when writing the letters)*

The more accurate the writing of letters is taught, the greater the legibility will be. Also, many features such as the space between letters and words, the size of the letters, the alignment of the letters on the line affect legibility (Graham et al., 2006).[12]
According to Fountas & Pinnell (2009)[9], it is important that educators demonstrate correct letter formation during modeled, as well as, shared and guided writing (i.e., top to bottom). The children do not have to make rows of letters but must have ample and meaningful opportunities to write every day. Providing children with opportunities to engage in meaningful writing reinforces that they are writers and allows them time to practice letter formation in the context of writing.

3.3 G-umuhit ng mga letra sa hangin o buhangin gamit ang daliri upang malinang ang motor skills (*Try writing the letters in the air or sand using the fingertips in order to train the motor skills)*

The act of writing letters or words in free space with body movements is known as air writing. Air-writing recognition is a special case of gesture recognition in which gestures correspond to characters and digits written in the air. Air-writing, unlike general gestures, does not require the memorization of predefined special gesture patterns. Rather, it is sensitive to the subject and language of interest (Abir et al., 2021).[1]
When children are learning to form a new letter, it is helpful to begin with large movements such as forming the letter in the air; have children use a sweeping movement with the entire arm, not just the hand. This initial practice should emphasize learning the motor pattern with correct formation of the letter (e.g., as discussed for the letter *b* above) rather than writing the letter on paper with perfect legibility or size (Louise Spear-Swerling 2006).[20]

3.4 S-undin ang tamang paghawak ng panulat at posisyon ng katawan (*Follow the right body posture and pencil grip when writing)*

The teacher will first introduce the correct sitting position and how to grasp the pencil correctly to the pupils before learning how to handwrite letters on paper using pencils. According to Berninger (2012)[3], handwriting saves ordered alphabet series in the long-term memory. In this respect, it is important that teachers of grade one pupil concentrate on teaching children how to grasp pencils correctly in order that they can able to learn the correct way of drawing letters and forming legible handwriting.

Execution includes correct and consistent pencil hold, posture, and letter formation. Counterproductive habits in these latter areas are not always obvious from looking only at writing samples and can greatly impede progress in

handwriting. For instance, young children may "draw" a letter such as *m* using separate strokes, starting on the right side of the letter. Forming the letter beginning on the left side, without lifting the pencil from the paper, is much more conducive to building eventual speed of writing (Louise Spear-Swerling 2006).[20]

3.5 U-mpisahan ang pagsusulat ng bawat letra sa pagsunod ng mga gabay na guhit *(Start writing the letters by tracing a guideline first)*

When the teacher is done introducing the correct sitting position and how to grasp pencils correctly, the teacher can now proceed to the fifth step which is tostart writing the letters using guides. The teacher must prepare a worksheet with visual cues to provide clear direction for letter formation (e.g. in figure 1). Visual cues can be shown as dotted lines, faded lines, and arrows indicating the correct formation to form letters. Figure 1 shows examples of visual cues with the letters a and b. There should be one letter each worksheet to avoid confusion to the pupils. This step is supported by Cabell et al.(2013)[5] saying that tracing letters is important for children to improve their writing because they can focus only on drawing letter. Similarly, in the study of *Shawn Datchuk (2016)[7]*, it was mentioned that visual cues are dotted lines, arrows, and numbers indicating the direction and sequence of strokes to form letters. Visual cues provide clear directions for letter formation and should be provided on student materials. Using visual cues at first, then gradually removing the cues from materials will help students commit aspects of letter formation to memory.
Research has shown that tracing is an activity that strengthens handwriting by helping children recognize the shape a letter takes while also practicing appropriate size of the letter and correct formation of the letter (Wistrom, 2011)[22]. Tracing letters is an ideal gateway to mastering size, slant, and formation of letters. Tracing also provides children with the opportunity to further refine their fine motor skills and concentrate on forming artistic letters (Leo, 2006). It has also been shown that tracing improves handwriting for children as young as preschool (Caletti, et. al 2012)[6].

3.6 L-inangin ang "Visual Perception Skills" sa pamamagitan ng pagsusulat ng walang sulating kinokopyahan *(Hone the Visual Perception Skills by writing without guides and/or copy of the letter)*

Datchuk (2016)[7] stated that handwriting refers to the production of alphabetic letters with a writing tool. For handwriting, students draw upon their orthographic coding (i.e., knowledge of alphabetic letters from memory), make tiny adjustments to fine-motor movements (i.e., grip the pen or pencil and move their fingers and hands), and orchestrate all the movements with visual-motor coordination (i.e., view the lines and spaces on the writing surface and adjust as necessary).

Visual perception is a skill that helps understand the things that we see. It further helps with visual discrimination which is the ability to acknowledge the differences and changes of a visual form, specifically with how letters may look alike but are actually different from one another. These includes letters like b and d or p and q (Kaenel et al., 2021)[15].

3.7 A -yusin ang mga pagkakamali sa naisulat sa pamamagitan ng pagkompara sa naisulat at pinagkopyahan *(Correct any written mistakes by comparing the written output from the guide copy)*

Actively encourage students to retrieve letter shapes from memory. One way to do this is to teach students to use a cover-copy-compare procedure. First, have students view a letter or series of letters. Second, have the student cover the letters and then try to copy the letters from memory. Third, have students uncover the letters and compare their handwriting to the original letters (Dutchuk 2016)[7].

3.8 T-andaan ang mga dapat baguhin sa unang pagkopya at subukan na muling sumulat. *(Note what needs to be corrected from the first attempt and try writing again)*
Tsang (2004)[21] stated that the first implication is that repetition leads to students own repair. This is considered to be more beneficial and effective for students learning and increases students critical thinking ability. In addition, Dabaghi & Ukbay (2010)[8] argued that instead of explicitly correcting the student's errors and hindering their thinking process, repetition can be used as an implicit correction technique by teachers that might possibly end in success.

Moreover, in the study of Rosenshine (2012)[18], he mentioned that the most effective teachers in the studies of classroom instruction understood the importance of practice; reviewing the concepts and skills that were necessary to do the homework; having students correct each others' papers, and asking about points on which the students had difficulty or made errors.

4. CONCLUSIONS

Handwriting is a skill that significantly impacts the learning ability of children. When it is learned incorrectly, it isn't easy to correct without proper guidance. Handwriting training begins in first grade, and every classroom teacher's effort in teaching handwriting is essential. It has been observed that some teachers have difficulties in teaching handwriting, and students also encounter challenges when learning how to handwrite. However, with the help of recent studies, alternative methods can be created to help address these challenges.

Through this research, eight key elements that are essential towards a child's ability to learn handwriting are uncovered: knowledge of the alphabet, knowledge on formation of letters, development of Hand Motor Skills, proper hand grip and posture, tracing ability, Visual Perceptive Skills, acknowledging mistakes and differences of forms, and repetition as a corrective action. It is also worth noting that each of this element are correlated with one affecting the other if not acquired properly.

That said, "PAGSULAT" was developed to provide a comprehensive guide for everyone involved in the handwriting learning process of children. This tool is designed to assist children in learning and mastering handwriting abilities through the eight steps. Each step contains activities that can be carried out inside the classrooms or even at home. The activities provided are tailored in order to allow children to acquire the key elements in mastering handwriting.

PAGSULAT is a standard that can be followed or referred to in order to make instructions toward learning handwriting easier. The outline of the steps provided in the tool is progressive, thus, when used, it is easy to track the children's progress and address possible challenges. Moreover, as each step of the tool is tailored to address a key element in learning handwriting, there is flexibility towards the use of activities and other approaches can be tried for every step.

5. ACKNOWLEDGEMENT

1. The use of PAGSULAT as a teaching tool by teachers in Grade 1 classes learning handwriting to provide students an easy step by step way of how they can handwrite. As the initial instructions towards proper handwriting is done in schools by teachers, PAGSULAT should be introduced to children inside the classrooms where they can be thoroughly guided and monitored.
2. The use of PAGSULAT as a guide for parents to follow-up the learning of handwriting of children at home. As learning extends to the homes of each child through the parents, the parents can refer to PAGSULAT to help guide their children to learn proper handwriting and help develop the essential skills they need.
3. Further study to improve and optimize the tool before using towards a wider scope. Teachers should conduct further research before using PAGSULAT towards a broader scope, specifically for Grades higher than one.

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