

Title: Fine Motor Skill Interventions for Teaching Handwriting

Abstract:

This poster will present the results of an action research study that will be conducted this spring in my Kindergarten classroom. Students who demonstrate poor handwriting skills will participate in daily physical therapy exercises, squeezing a squishy-ball, to determine if this intervention helps improve their writing abilities.

Statement of the Problem:

Children entering the kindergarten classroom have a variety of experiences with writing exposures in general. Some five and six year olds arrive having more sophisticated letter formations and legible hand writing samples, while others struggle at even attempting to write their first letters. Handwriting ability primarily involves the use of fine motor skills and a large majority of a student's day, up to 60%, is spent in writing tasks (McHale & Cermak, 1992). Therefore, it is no wonder that children who have underdeveloped or poor use of fine motor skills would struggle with their writing samples (Erhardt & Meade, 2005).

In later years as a child matures some are diagnosed with having dysgraphia, which has been identified as a difficulty expressing ones opinions or thoughts on paper (Richards, 1999). Children with poor written forms may struggle with completing assignments and have a lower self-esteem due to their inability to express themselves (Crouch & Jakubecy, 2007). Teachers should be aware of how to identify and work with students who are just arriving to their classes in the very early elementary years who may have deficits in written communication.

Purpose and/or Research Question:

The purpose of this study is to describe the effects of using a fine motor skill intervention technique on my students who are demonstrating poor written expression as a tool to strengthen their writing abilities. How effective is the use of fine motor skill interventions to improve the writing abilities of students?

Literature Review:

Researchers suggest that for some children handwriting skills are not automatically obtained, but instead may need a more systematic approach to ascertain legible handwriting skills. Sensorimotor interventions and therapeutic practices have been identified as two popular techniques being used by therapists who are trying to help individuals with poor handwriting skills (Feder, Majnemer & Synnes, 2000). Sensorimotor interventions may include various tasks that help improve a child's visual memory and their letter formation recall for writing assignments. Therapeutic practices can help strengthen poor muscular structure and increase handwriting skills with nominal adult support. Children can be taught various handwriting abilities through intervention techniques utilized within each of these two modalities.

Neurodevelopmental interventions that incorporate orthographic and motor activities have been identified as another possible technique to use with students who are struggling writers (Berninger, et al., 2005). Orthographic activities focusses on skills needed to help students recall mental information, while motor activities help develop automaticity in muscle memory recall for writing. Some researchers have used robotic techniques and handclapping practices to strengthen poor motor skills, and as a tool to improve handwriting abilities. In this literature review, the research on the following interventions was reviewed: sensorimotor & therapeutic, neurodevelopmental & motor skills, robotic techniques, and handclapping practices.

Research Methodology:

This action research will be conducted in my kindergarten classroom. I will conduct the intervention and writing samples on all of my 21 students so as not to draw attention to those participants who are not part of the study. As part of my final findings I will only use the writing samples, and parent/student surveys of those that were returned.

There will be three forms of data collection: parent surveys, student surveys, and a pre-created writing sample rubric. All surveys will be conducted prior to intervention and evaluated and compared for positive and negative responses. Surveys were created using a Likert scoring system with point's assigned for each answer. Parent's surveys with lower scores reflect positive feelings about their child's writing abilities, while student's surveys with lower scores reflect negative feelings about their writing abilities. Parent's surveys have a possible high score of 15, and student's surveys have a possible high score of 5. Students completed a writing sample by copying the "The Pledge of Allegiance" before interventions begin, and then every two weeks they will complete a writing sample using the same document. Writing samples will be scored using a pre-created rubric with a possible high of 12.

Results:

Although this study has not yet been completed my anticipated results include: improved student handwriting abilities, an increase in student's survey scores and self-esteem, and lower scores on my parent's post-survey with regards to how they feel about their child's handwriting skills. On January 7th I had my students follow along with me as I read them their survey. They were able to independently circle the appropriate yes/no answer. After they completed their surveys I had all students complete their first writing sample of "The Pledge of Allegiance." I collected all the data, and have created a Microsoft Excel spread sheet to store the results.

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Beginning January 7th, and every two weeks after my students will complete the same writing sample. I will grade the sample using my pre-created rubric and store the results in the Microsoft Excel file. My anticipated conclusion of collecting data for this action research should be around the second week of March.

Implications:

With these results I hope to find that while using the fun movement of squeezing squishy balls during morning circle time activities as a mean to strengthen student's hands this will lead to an improvement in my student's writing abilities. The implications of improved handwriting on future research are endless! Learning that this one little intervention technique could help improve students handwriting can lead to research about other physical hand exercise activities such as the use: of play doe, soft clay, hand grips, and other hand tools.

References

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