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Handwriting Without Tears and Its Affect on Lowercase Writing

Cynthia Ungs

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Handwriting Without Tears and its Effect on Lowercase Letter Formation

Cynthia Ungs

Northwestern College

An Action Research Project Presented
in Partial Fulfillment of the Requirements
For the Degree of Master of Education

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Abstract

The researcher hypothesizes that students that have no prior Handwriting Without Tears instruction can transition to lowercase name writing easier than students that have had that instruction. The researcher has studied the handwriting samples based on common handwriting assessment qualities. Writing samples were taken monthly, one from each student. There were 9 students that the researcher received writing samples, all of white race. There were 7 boys and 2 girls in the test set. The students that received Handwriting Without Tears used this mixed upper and lowercase writing for some time and had a harder time transitioning to first letter uppercase and rest lowercase writing of their name. The researcher only had 3 out of the 9 that had prior Handwriting Without Tears instruction. This study needs to be replicated with more students that have had prior Handwriting Without Tears instruction. It would also be good to have students of a different race in the student sample as well. In practice, teachers need to be aware of the students that have had prior Handwriting Without Tears instruction will probably go through this extra phase of their lowercase transition and they will come out of it but it is an extra phase they go through.

Handwriting Without Tears and its Effect on Learning of Lowercase Letter Formation

The researcher's project for their Capstone will focus on the difference between these students that have had prior Handwriting Without Tears (HWT) instruction before preschool and those that had not. They will use a rubric they created to assess the changes in the children that have had prior HWT instruction and those that have not had any prior.

They will collect handwriting samples from the children in the class they work in from each month of the school year so far and assess them using the rubric they have created to assess the rate of gain on lowercase writing comparing the two groups. Comparing the rate of gain from each group will show how students that have had prior HWT instruction and have had no prior lowercase letter formation learning grow in at a slower rate than those that are taught to write in lowercase from the beginning of the year.

They will base their rubric off of the stages of letter formation learning progression. The researcher will include in their study of the handwriting samples: letter directionality, stage of letter formation, letter size, and letter spacing as well teacher assistance like in cases of tracing their name. Through this assessment the researcher hopes to see a difference in the rate of gain over the monthly assessments from the children that have had prior HWT instruction and those that have not had any prior HWT instruction.

Throughout their research they hypothesize that there will be a defining way students write their name in lowercase letters compared to the other students that did not have prior Handwriting Without Tears instruction than those that did. They hypothesize that they will write in mixed lower and uppercase letters when attempting to write a lowercase name before January.

After January this changes and they begin to write in less mixed upper and lowercase letters and more lowercase.

Literature Review

The researcher found many sources that supported what they saw in the classroom. The classroom teacher that the researcher worked with used Handwriting Without Tears in the classroom, but being a younger teacher with no training on how to use it correctly, they were really left in the dark with a book thrown at them. This happens so much with curriculum in the early childhood teachers are given where they are not trained properly and expected to use certain curriculum in the classroom, a lot of times a few days before school is supposed to begin. It can be very hard for school districts to train every new teacher they get in all the curriculum, they just do not have the time or resources to be able to do this type of training.

Lust (2011) states that Handwriting Without Tears can be very effective if used as an intense handwriting curriculum. The new program suggests every day that a part of it be done. If used correctly, it can greatly improve handwriting legibility. Carroll (2017) also stated that using explicit handwriting instruction greatly helps students gain the legibility needed to gain academic success later in life. It does not specifically state Handwriting Without Tears as the curriculum they studied, but it could be the explicit instruction needed. Howe (2013) also found that with intense study that students do better on handwriting assessments. They believe that the new Handwriting Without Tears program is the answer to our handwriting needs that we all can use every day.

The intense structure of other handwriting curriculum is one thing that is lacking from the Handwriting Without Tears. There is not set structure to Handwriting Without Tears as the program is now, but the teachers are not given any type of structure when they receive the teaching guide for Handwriting Without Tears, they are just given an order in which to teach the

letters in and the way they are to be taught. The intense structure is what Handwriting Without Tears needs in the future to make it even more effective.

Handwriting Without Tears is the answer that all the local school districts have found, but with the current system, it is not updated enough to work with the challenges of today with handwriting. A lot of children now have poor grip and pincer grasps. The system as it is now, does not have any guidance for teachers that have students with these hand strength problems. However, the next group of research points to the life skills that are affected by lower handwriting skills.

Engel (2018) also found that lower handwriting skills affect learning skills later in life, but if a handwriting program is used that is curriculum based it can raise the scores of handwriting assessments. Any type can be used as long as it is curriculum based it can improve legibility. There is not one that is any better than the others though. The New Occupational Study (2014) found that Handwriting Without Tears was more effective than a teacher created handwriting curriculum in the study. It was significantly higher than a teacher created curriculum on the Minnesota Handwriting Assessment.

Teacher designed handwriting programs are not consistent and teachers do not have all the research behind them like the curriculum-based programs do. (NWOS 2014). These curriculum-based programs have a team of researchers to make sure that they match what is needed at that stage of life for students. Teachers just do not have those kinds of resources available to them. Roberts (2014) also did a study of Handwriting Without Tears and its effectiveness. They also found that it was much higher on the Minnesota Handwriting Assessment than teacher created systems as well, in their own study.

This study though showed that Handwriting Without Tears should be continued in kindergarten, which many schools in the researcher's area are not doing. It was interesting to the researcher that this source stated that Handwriting Without Tears should be continued into kindergarten. They started with that thought for their research to study whether or not students continue into kindergarten to see how they transition to lowercase writing in kindergarten. The way that Handwriting Without Tears is used now the students are only taught to write in uppercase letters, and there is no transition to lowercase writing in kindergarten. Most of the kindergarten teachers are not trained in Handwriting Without Tears, unless they have taught preschool in the past. They do not know that preschool students are taught to write only in uppercase letters and have no knowledge of using lowercase letters at all. This is the disconnect between early childhood and kindergarten.

Handwriting Without Tears has been evaluated using the Minnesota Handwriting Assessment. These studies both used the Minnesota Handwriting Assessment, but Van Hartingsveldt (2011) did not find the Minnesota Handwriting Assessment to be better than any other form of standardized test to assess handwriting. They found that one test was not any better than any other, and none had all the components they were looking for when assessing handwriting. They included 12 tests, and none were any better at matching all the criteria than any others. This study also showed it does not matter which test you use, there are things that can be great or terrible about each one of the handwriting programs and it is up to schools to decide which is best for them and their students. No matter what types of assessments that are used to decide which type of handwriting curriculum is best they did not find one that is better than the other, if any handwriting curriculum is used it can be effective to help handwriting skills.

Occupational therapists are another tool that younger teachers do not know when to use properly. These next research point to the use of occupational therapists in the classroom when there is handwriting difficulties. Occupational therapists can give teachers work to do with students that have low pincer grasp or poor grip to help with the difficulties they have with handwriting skills.

There was also literature they researcher found that pointed to the use of occupational therapists to raise handwriting test scores. These sources that follow all discuss using occupational therapists to boost handwriting scores. Feder (2000) surveys occupational therapists on what they use to assess handwriting difficulties. He found that occupational therapists do not like to use standardized tests to assess handwriting, but rather their own type of assessment was done instead.

Occupational therapists can be a great asset to teachers as Donica (2015) found the use of occupational therapists giving teachers suggestions on how to work with students with handwriting difficulties. Handwriting Without Tears is even better when occupational therapists assist the teachers when students have difficulties. Gerde (2014) also discussed the topic of using occupational therapists and their use in the classroom with regards to handwriting. He found that when teachers were given practical advice from occupational therapists, the students had more success in handwriting skills. Seo (2018) found that when occupational therapists gave teachers fine motor activities to use with students, they would gain manual dexterity and did better on a Korean alphabet assessment.

Fine motor difficulties can affect the way they hold a pencil. Students that have fine motor difficulties cannot hold a pencil with a pincer or tripod grip because they just do not have the strength to hold a pencil and write for a long time. Occupational therapists are under used in

community partner programs of the state-wide preschool program. They do not have a specialist in the school at all times and have to search out those people and sources, which can give in to just figuring it out ourselves instead of seeking out that help from therapists.

Nye (2018) surveyed a group of kindergarten teachers about their perceptions of handwriting programs and the need for occupational therapists' insight. Teachers felt there was a lack of training on the curriculum and needed the support of occupational therapists. There was a gap in the knowledge base of the developmental progression. They also found there was a lack of training in the handwriting curriculum with the teachers. A lot of the teachers they had talked to only were given the teacher's guide and a small part of Handwriting Without Tears, and just left to figure it out from there. The researcher hopes that when they change Handwriting Without Tears and include more training for teachers that are new to the program.

Korth (2017) surveyed 5 primary grade teachers on what they think of the writing curriculum they were given. They all stated that there were certain obstacles to the writing curriculum and the main obstacle was lack of training. They discussed preparation of new teachers and in-service training for current educators as ways around these obstacles. Another obstacle of teachers was the lack of a good test for assessment.

De Vries (2015) also studied 3 fine motor tests to assess which is best to assess handwriting. The research was in varied ages and was found inconclusive. Another source they found that studied types of handwriting assessments was Puranik (2014). They studied the type of assessments that were given and found that students that were given a three-factor approach of cognitive abilities, emergent literacy, and language skills was found to assess writing skills better. This goes back to the idea that one size fits all, there is no such thing. They have found with Common Core that there is no one size fits all curriculum, and handwriting should be the

same. There is always differentiation to be made. The same as there is no one size fits all curriculum, there cannot be a one size fits all assessment to assess the reliability of handwriting programs either.

The last type of sources the researcher found have to do with when students are found to have writing difficulties. Feder (2005) studied preterm students had a more difficult time with writing skills. The preterm children had much lower legibility scores and slower speed scores as well. They were also found to have more behavioral factors that lowered scores as well. Feder (2007) found that when students had remediation efforts, they always improved in their scores.

Most of the students that had lower scores had problems with fine motor skills. However, if the students received remediation, they gained handwriting and fine motor skills. Edwards (2003) studied kindergarten students that have writing and reading difficulties, because this was a literature review that was very narrow in its focus, there was not a lot of literature, so the writer also focused on early elementary grades as well. The researcher is focusing on the preschool age children, so this does not pertain well to their topic, but having writing difficulties did meet some of their topic.

Vilageliu (2012) conducted a longitudinal study of preschool students and they found that in January to March students become more focused on the syllables that make up words and how it affects handwriting. During this time period they can focus on movement of letters, and in turn the formation of the letters. They also found in their research that students became more focused on letter formation than before starting after Christmas break.

The last source the researcher found that related to their research was an article on letter reversal. Fischer (2017) studied the students that had letter reversal in letter formation and found

it to be an environmental factor and not a biological factor. It is something that is learned, and not inherent. The researcher does have one student that still does letter reversals in letters that are normally written to the left and not to the right such as S, and a. He however writes the J the correct way since it is the first letter of his name.

A lot of these sources do relate to the researcher's topic, there were only a couple that did not relate directly. The researcher found quite a few that even focused on Handwriting Without Tears. There were a few that were over 5 years old, or even 10 years old, but they still used them because of the direct relation to my topic. The sources were also from the same author or authors that they had used for other sources.

In conclusion, the researcher found a lot of research that pointed to the effectiveness of an intense handwriting program like Handwriting Without Tears. Having the remediation and direct instruction of Handwriting Without Tears available, is a great resource to preschool teachers and the researcher is excited to see how the new program is going to work within the classroom.

Methods

Participants

There are 9 children that the researcher received writing samples from. The children range from age 4.5 to 5.5 years of age. There are 2 girls and 7 boys. They are all white children.

Starting with Student A- He spent time in the 4 year old classroom and had prior Handwriting Without Tears instruction. Next is Student B-he will be 5 in May, He did not spend time in the 4 year old classroom and did not have prior Handwriting Without Tears instruction. Then Student C- he just turned 5 in February He did spend some time in the 4 year old classroom and had prior Handwriting Without Tears instruction. Next is Student D- he will be 5 in May. He has had prior daycare experience but did not spend time in the 4 year old classroom and did not have any prior Handwriting Without Tears. Student E turns five in the summer. He has not spent time in the 4 year old classroom and has not had any prior Handwriting Without Tears experience. Student F is the She turned five in September. She has not had any prior school or Handwriting Without Tears experience. Student G will be five in June. She did not spend much time in the 4 year old class and has not had any prior Handwriting Without Tears experience. Student H had prior Handwriting Without Tears instruction in the 4-year old class before preschool and turned 5 in December. Student I turned five in October. He has not had much prior daycare experience and has not had any Handwriting Without Tears experience. There are 3 students in the class that have had prior Handwriting Without Tears instruction and 6 without. They students range in age from September birthdays to late July. There are no known disabilities or other issues with the children in the class.

Measures

The researcher will use the following rubric from appendix A to assess their writing samples from each month of the school year. The researcher will take into account student age at the testing time each month, and prior Handwriting Without Tears instruction. The researcher will measure letter formation, letter directionality, letter size, letter spacing, and need for teacher assistance; as well as whether they use the first letter capital and rest lowercase when writing their name. The scores are out of 24 with a score of 4 in each area as the highest. If they needed teacher assistance such as a traced name for example they lost 2 points. If they did mix lower and uppercase letters they lost 1-2 points.

Procedures

The researcher received monthly samples from the first week of the month from the months of September to February from the classroom teacher they work with. These are from daily name writing sheets they do every day in their school.

The researcher then matched these results to the rubric. Then they tabulated them by time of year, each student in their own graph to gauge growth, and age of student at that time to see if the age of the student makes a difference. They will also make a graph of students that have prior Handwriting Without Tears instruction to those that did not month by month to see the difference.

The teacher decided whether or not to have the student trace their name based on the first testing period score. If they needed help she had them trace their name until they became confident and then had them write on their own. She also added lines if they needed help with spacing, she added lines where each letter was in its own section of the box. She also would use

a model of the correct name if they needed to see which letter came next for order of letters in their name once they began to not use the tracing, she would use the model for as long as the student needed.

Results

Preliminary visual analysis of each student graph demonstrated that these students all had a slight dip in the scores after the first month sample where they begin to write without tracing and had mixed lower and upper case letter in their name writing (see Figure 1).

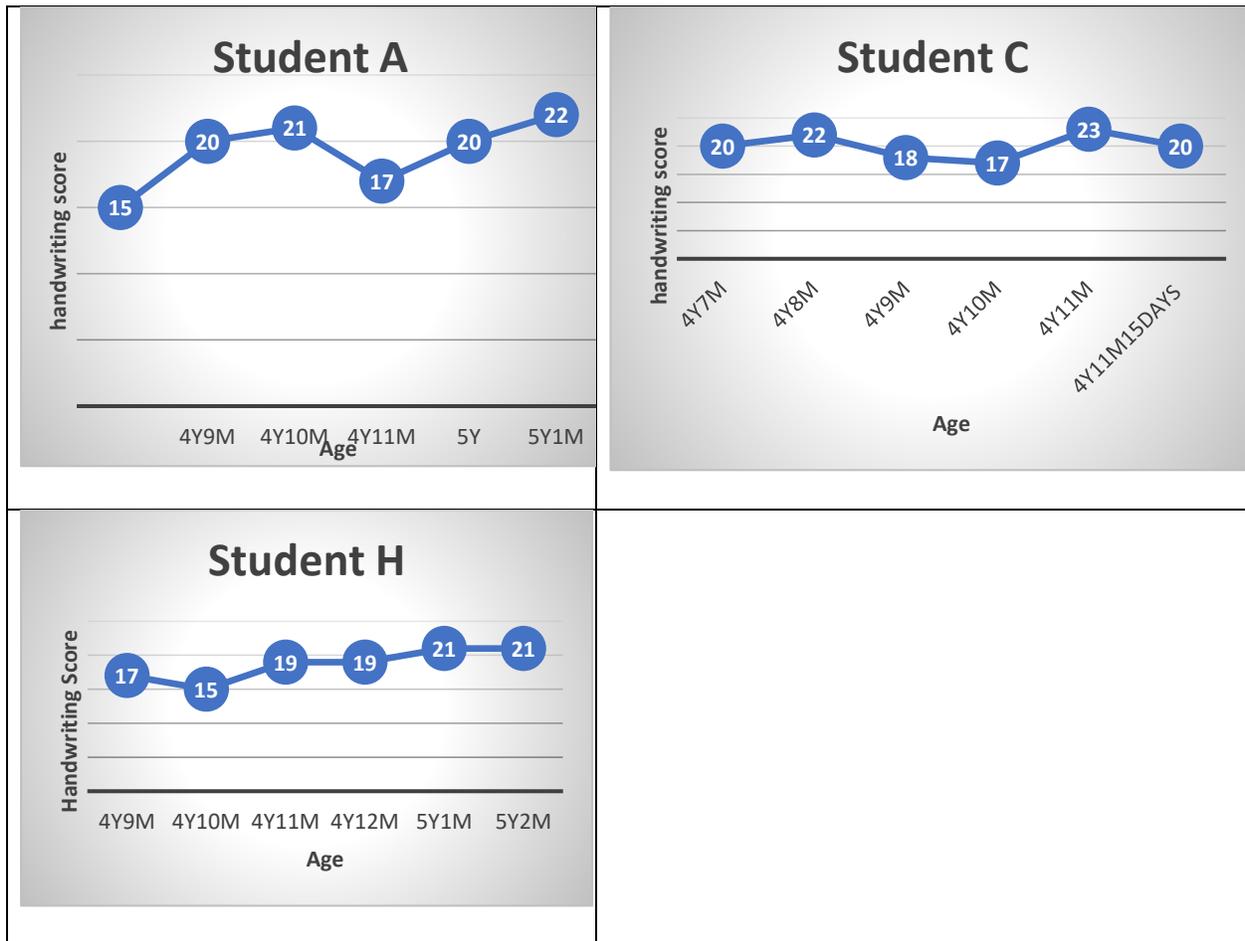


Figure 1. Handwriting scores of students with prior handwriting without tears curriculum by age.

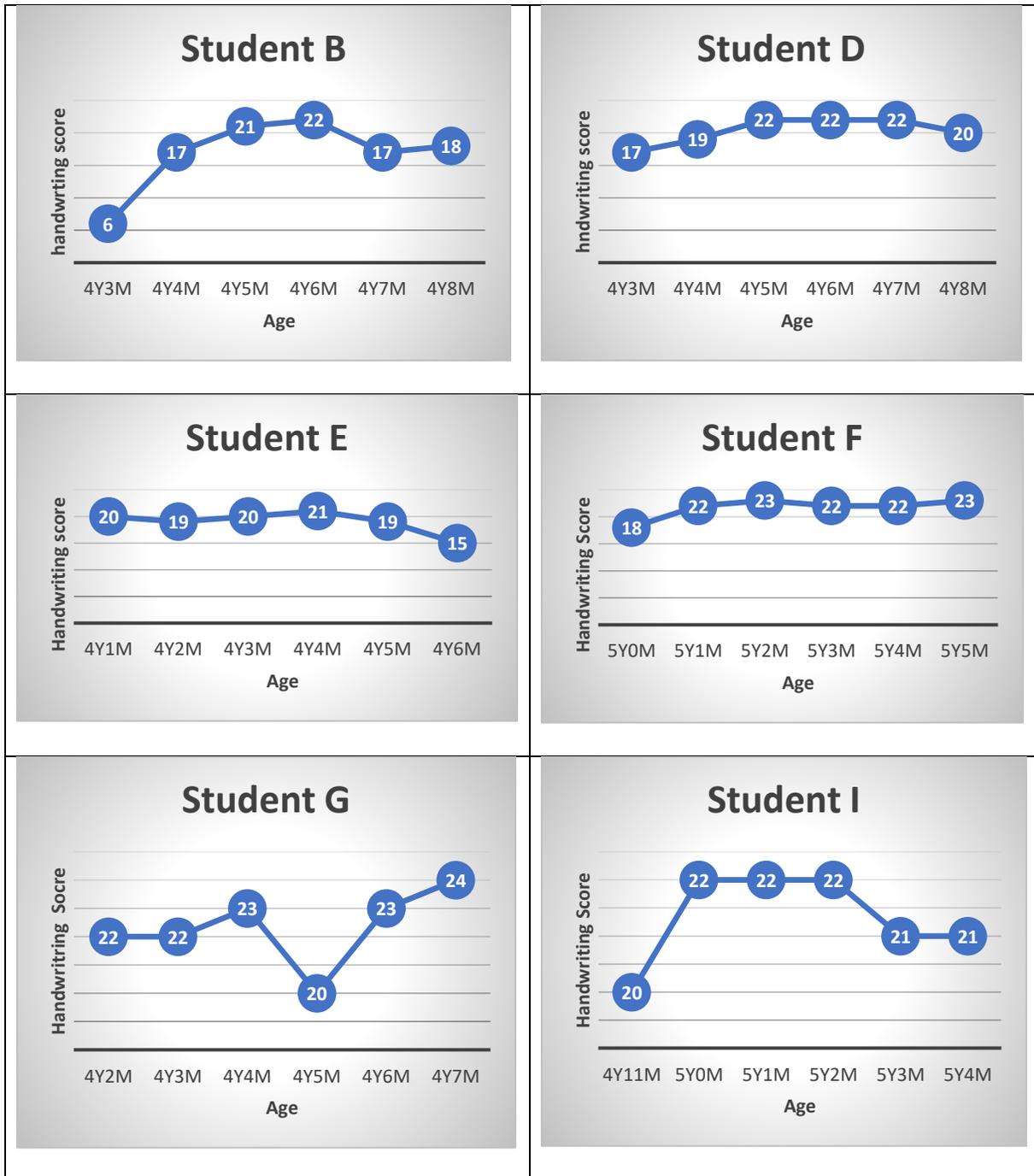


Figure 2. Handwriting scores of students without prior handwriting without tears curriculum by age.

These students all went from tracing their names to doing it on their own with no mixed lower and uppercase letters. The dips in scores came when they first wrote on their own without tracing it.

The hypothesis for the current study was to test whether or not handwriting scores would differ between those who had handwriting without tears before and those who did not. An independent groups *t* test revealed that there were not statistically significant differences in handwriting scores between students who had hand writing without tears before ($M = 19.09, SD = 1.24, n = 3$) and those who had not ($M = 20.25, SD = 20.77, n = 6$) with small effect size, $t(7) = -0.92, p > .05, d = .07$.

Discussion

It seems to the researcher that having HWT and not having HWT instruction does not matter as much as age of student at the testing period when all the scores from the rubric are combined. These are the defining factors they have found when teachers are testing name writing skills in Kindergarten. The only thing they found that was defining of the students that had prior HWT instruction was their use of mixed upper and lowercase within their name, where the students that have not had prior HWT instruction did not have that problem.

Summary of Major Findings

Given the three students that had prior HWT compared to those that did not, they did have significantly lower scores in the final category of the rubric. They did not need the teacher to write a name to be traced, like the others, but they did have a harder time switching from all capitals to only the first letter capital. They also had a harder time with lowercase letter writing compared to the other students with the letters in their names.

Limitations of the Study

The small class size was a limitation to the researcher. Also only having 3 students to study that had had prior Handwriting Without Tears instruction and the teacher not teaching them all to write in capitals like the curriculum suggests in preschool also hindered their results.

Further Study

Further study would need to decipher if the all uppercase writing was just a fluke with these 3 students. The researcher would need to study more students that had full Handwriting Without Tears instruction in writing their names in all capital letters to truly assess if this is a factor when transitioning to kindergarten. Given the small class size of only 9, and only 3 that

received full Handwriting Without Tears, it was hard to truly see the effect of it on the transition to lowercase writing.

Conclusion

Areas for further study include using a more balanced ratio of students that have Handwriting Without Tears prior, and not having the instruction prior. Another area for further study could be to use student of other races, instead of all the same race.

Students with prior Handwriting Without Tears instruction go through an extra phase of lowercase writing transition, where they use more mixed upper and lowercase writing when transitioning from the uppercase writing of Handwriting Without Tears to having only the first letter capitalized and the rest of the letters lowercase when name writing.

The researcher found that students that have had prior Handwriting Without Tears go through this phase in their transition to lowercase writing where students that did not have Handwriting Without Tears instruction do not go through this phase.

The researcher studied the age of students at the time of testing compared to others at the same age. They also studied the rate of gain that students made, they studied the difference between the students that had prior Handwriting Without Tears and those that did not. The students that had prior Handwriting Without Tears instruction had a slower rate of gain but started at a higher level than the other students that had not had prior Handwriting Without Tears instruction.

They did go through a phase in the middle of the testing range from about October to January where they started to transition from all uppercase writing to mixed upper and lowercase writing that students without prior Handwriting Without Tears instruction did not go through in their writing. Teachers need to be aware of this phase and be aware this is a factor with the students that have had prior Handwriting Without Tears instruction.

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Appendix A

Hand Writing without Tears Rubric

Rubric	4 Exemplary	3 Good	2 Fair	1 Poor	0 Weak
Letter Directionality	All letters are facing the correct direction	Most letters are facing correctly	Some letters are facing correctly	Very few letters are facing correctly	All letters are facing in correctly
Letter Formation	All letters can be deciphered as the correct letters	Many of the letters can be deciphered correctly	Some letters can be deciphered correctly	Few letters can be deciphered	No letters can be deciphered
Letter Size	Letters are all of smaller size	Letters are a mix of small and large	Letters are mostly large	Letters are all large	Letters go out of space allotted
Letter Spacing	Letters are all spaced correctly	Letters are mostly spaced correctly	Letters are spaced close and then apart	Letters are either on top of each other or very far apart	Letters span the whole page and are very far apart or are squished on top of each other
Teacher Assistance	Student wrote name without any teacher assistance	Student needed lines to get spacing correctly	Student needed to trace name written by teacher, but traced accurately	Student traced on teacher written name somewhat accurately	Student scribbled over teacher traced name
First letter Capital, other lowercase	Letters are capital first letter and rest lowercase	Letters are a mix of upper and lowercase	Letters are mostly uppercase to all uppercase, or all lowercase	Letters are letter-like forms	Name is scribbled line