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#### **ABSTRACT**

This study investigated the teacher expectancy effects (also called Pygmalion effects) on the grading of both fourth-grade spelling tests and eighth-grade essay tests by 19 teachers in central Virginia public schools. Spelling tests contained the same five misspellings, but differed in the legibility and gender of the sample. The essays varied with regard to content, gender, and handwriting style. The teachers graded the spelling lists for the number of errors, assigned a gender to the sample, and assigned a letter grade to each essay. Results indicated that illegible spelling test samples received both a lower grade and a higher number of errors than did the legible samples. Conversely, legible spelling test samples were scored with fewer errors than they actually contained. Strong essays in the legible condition received a mean score of 93.8, while the same essays in the illegible condition received a mean score of 75.3, showing that appearance played a large role in the papers' scores. The strong illegible essays received lower grades than weak essays in legible handwriting. Results support the theory that there is a Pygmalion effect for handwriting. Teachers exhibited gender biases in regard to handwriting styles, with illegible handwriting attributed to a male more often than to a female. Appendixes contain the spelling tests and the essay samples submitted to the teachers for assessment. (Contains 21 references.) (JDD)

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# The Pygmalion Effect and Its Influence on the Grading and Gender Assignment on Spelling and Essay Assessments

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Running head: THE PYGMALION EFFECT ON ASSESSMENTS



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#### **Abstract**

This study investigates the Pygmalion Effect and its influence on the grading of both spelling and essay tests. The nineteen subjects currently teach in the Central Virginia public schools. Spelling lists contained the same five misspellings, but differed in the legibility and gender of the sample. The essays varied with regard to gender, handwriting style, and the content of the essay. The subjects graded the spelling lists for the number of errors and assigned a gender to the sample. For the paragraphs, the subjects assigned a letter grade (A+through F) to the paper. We predicted that illegible handwriting would receive a lower grade or a higher number of errors than the legible samples. We also hypothesized that teachers would attribute illegible handwriting with males and legible with females. The results indicate that illegible samples received both a lower grade and a higher number of errors than did the legible samples and that teachers appear to have gender biases in regards to handwriting styles.



# The Pygmalion Effect and Its Influence on the Grading of Spelling and Essay Assessments

Social Psychologists have repeatedly conducted experiments on the Pygmalion effect in the classroom ever since Rosenthal revealed his famous "Oak School" experiment in 1968. Rosenthal documented that teachers' expectations of students can have a tremendous effect on student performance (Rosenthal, 1973). He found when teachers learned the names of randomly selected "bloomers", children who were supposedly labeled as high achievers, the way the teachers treated these bloomers actually did increase their overall academic achievement. In addition, these "bloomers" had higher self-esteems and were more likely to initiate conversations with teachers (Raudenbush, 1984). Rosenthal hypothesized that teachers, through both verbal and non-verbal cues such as smiling and nodding, reinforced the "bloomers", resulting in higher achievement levels (Raudenbush, 1984).

Many additional social psychological experiments have tested hypotheses dealing with teacher expectancy effects. These teacher expectancy effects are also called <u>Pygmalion effects</u>. They occur when the teacher holds an expectation on how he/she expects the student to behave based on student's personality, socioeconomic class,



previous school record, and the like. However, none of these studies have emphasized the connection between the quality of handwriting on assignments in which handwriting has a definite impact on the grading and the Pygmalion effect. If all academic subjects are susceptible to the influence of the Pygmalion effect, certainly handwriting should be affected as well, since it is often used as an indication of achievement in the early grades. This research proposal on the influence of the Pygmalion effect on student's handwriting in spelling will further support the existence of the Pygmalion effect in the classroom.

Rosenthal hypothesized that teachers establish expectations of a child's potential performance based on their impressions of the child in all aspects (Rosenthal, 1987). Therefore, if a teacher believes a student is not capable of performing well on an assignment, the teacher may not push the child to excel as much as he/she would have with a "gifted" or average child. Instead, the teacher would lower his/her expectations and academic goals for the child, based on his/her beliefs concerning the child's potential. This lowered teacher expectation can in turn lower the student's performance, self-esteem, and overall academic performance, because he/she believes he/she is not able to work to teacher standards. This cyclic effect is called the self-fulling prophecy and is brought about by the Pygmalion effect.

Hutslar (1977) described four different parts of the teacher expectancy effect in the classroom and stressed the reciprocity of



teacher expectations on student achievement and self-concept. She names the four parts of the expectancy effect as "input, output, feedback, and climate" (Hutslar, 1977, p. 830). Input is the quantity and difficulty of the material the teacher assigns, whereas output is the student's performance in the classroom. The teacher influences the output in both climate and feedback. Hutslar defines climate as the way a teacher talks to his/her students (ex. tone) and states that feedback is the praise and/or criticism the students receive from the teacher on their academic potential (Hutslar, 1977, p. 830). All of these factors contribute to the teacher making judgments about a child's level, thus allowing for the Pygmalion effect to come into play.

McCormick and Noreiga (1986) found that teacher expectations can be transmitted to students in various ways. The researchers found that "teachers give more opportunities to students they believe are more likely to learn" (McCormick & Noreiga, 1986, p. 225).

McCormick (1986) also stipulated that teachers tend to "give preferential treatment to 'gifted' students" and that "teacher expectations of student performance may alter the ways that teachers treat students; this differential treatment may have a negative effect on the behavior and learning of students for whom teachers hold low expectations" (McCormick, 1986, p.225). This declaration supports the existence of the Pygmalion effect in the classroom and its effect on student performance. They also found that 70% of 340 teachers in their study "showed effects in the direction they would predict"



(McCormick, 1986, p.228). In other words, if a teacher held low expectations of a student's performance, the student tended to be a low achiever, whereas a teacher's high expectations correlated with higher student achievement.

Rosenthal reformulated his original Pygmalion effect experiment in 1987 in which he describes how subjects graded students. He found "in the Pygmalion study, when children were retested by testers who were blind to the experimental conditions, the effects of teacher expectations actually increased rather than decreased" (Rosenthal, 1987, p. 38). Thus, it can be assumed that when a teacher knows less about a student, stereotypes such as the student's SES, previous school record, personality, and ethnicity can bias teacher's objective scoring. Therefore, the teachers tended to rely on stereotypes when given less information on the student's background.

If the Pygmalion effect occurs when a teacher takes into account other personality characteristics of the student, then the researchers propose handwriting can be a source for teacher expectation effects. According to many books today, handwriting can be reflective of one's personality (Robinson, 1990, p.114). Thus, if a person has clear and neat handwriting, the person may be labeled as more precise and detail-oriented than another child with bad, illegible handwriting. It naturally follows that a teacher could assume personality traits, ability level, and gender from a child's writing



sample. This research will not focus on handwriting analysis but instead, on the general aesthetics of handwriting: is it legible or illegible?

Various studies have capitalized on teacher expectancy effects in handwriting samples. Emerling (1991) conducted an experiment in which he asked a sample of community college students to copy down the same information in their own handwriting. He found that untrained persons could tell the gender from the handwriting 87.6% of the time. Others studies have replicated this finding (Eames, 1990, Merllie, 1990). He also found that females tend to score more than two-thirds of a point better than males in the study (Emerling, 1991). He states "in discussing the results with aides, they [the testers] reported that they occasionally resorted to stereotypes in their attempts to guess their writing. For example, neat handwriting might suggest female handwriting" (Emerling, 1991, p.32). Emerling (1991) stated gender is "frequently revealed in his/her writings- either in content or in handwriting" (p.32).

In another study, Eames and Lowenthal (1990) hypothesized there might be a difference in the emphasis on handwriting in different levels of schooling. Generally speaking, "schoolteachers give higher marks to work in good handwriting" (Lowenthal, 1990, p. 545), but the extent to which handwriting plays a role in grading has yet to be determined. However, they concluded in their study that college grading practices are based more on content rather than form and



legibility of writing, and therefore, it would have less of an impact on the teacher's grading (Lowenthal, 1990). The lower elementary grades would most likely to have handwriting as a part of the overall grade since they emphasize writing skills (Curran, 1985).

Sloan and McGinnis (1982) found that handwriting does have a significant effect on the grades assigned to essay papers. Sloan and McGinnis gave 45 theme papers to Palmer handwriting experts who simply changed the handwriting of the essays. The original and rewritten papers were then graded. Results showed an inconsistency in grades based solely on appearance.

In another handwriting study, Johnson (1987) shows that teachers will often ignore the content of a paper and simply critique a student's work based on appearance. Johnson set up a hyperbolic scenario in which a ruthless writing teacher overlooked her student's progress. It was later shown that the teacher was being influenced by poor penmanship.

Furthermore, Sweedler-Brown (1991) studied the effects of computer typed essays versus handwritten essays. Her study reveals a strong bias against typed essays. The typed essays received higher scores than did the handwritten essays. It appears that teachers have an appearance bias because they award typed papers with higher grades.

To support this notion of bias in grading, Peterson and Lou (1991) found that when grading students' papers, a number of factors



other than the content of the paper also help to determine the grade a teacher assigns to a paper. Therefore, more teachers today give students the opportunity to type their essays on the computer rather than to write the essays by hand. Bangert-Drowns (1989) found that students generally enjoyed composing their own writing on the computer more than handwriting essays and that composing on the computer actually improved the student's quality and length of his/her paper.

Today, some school systems deem handwriting as an important part of the curriculum. Marrou (1982) stressed spelling and handwriting as two of the "basic writing skills" to be accomplished in Texas Elementary schools. Curran (1985) wrote that handwriting should be an integral part in elementary education in Louisville, Kentucky public schools. Many school systems place handwriting samples into students' portfolios as an indicator of achievement (Diffily and Fleege, 1992).

However, some other school systems say that handwriting probably is not considered a factor in grading (Nava and Lloyd, 1992). Although Nava states handwriting is not included in assessments, a teacher may unconsciously grade the paper more harshly if the child's handwriting is illegible.

This research extends the Pygmalion effect to include the teacher's expectations concerning student's handwriting. Do legible and illegible handwriting styles influence the way a teacher grades a



student's paper? This project describes one way of finding out the answer to that question. If handwriting is an extension of one's personality, a teacher may penalize the illegible work more severely than legible work. This research also looks at whether illegible handwriting is associated more with males than females and if legible handwriting is attributed more often to females than to males.

Handwriting and the formation of letters can influence the grading of spelling assessments and essay tests. Teachers' interpretations of students' letter formation serve as the basis for grading the students to make sure their spellings are correct and to convey the author's meaning in an essay. This research hypothesizes that if legible handwriting is defined as clearly printed letters and illegible handwriting as indistinguishable letters, teachers will hold different expectations for both illegible and legible handwriters in grading spelling and essay tests.

Take a hypothetical teaching situation. The teacher has two students, one with legible handwriting and one with illegible handwriting. The teacher comes to the word "interpretation" and she cannot tell whether or not the good and bad handwriters wrote an "e" or and "i". According to this study, teachers will give the benefit of the doubt to the child with neater handwriting ("I'm sure he/she put down an "e") and penalize the bad handwriter ("I can't read it so I'm going to count it as incorrect"). Thus, the way the teacher perceives the legibility of the student's handwriting (teacher expectancy effect)



allows for the teacher to grade according to other non-academic characteristics (Pygmalion effect).

From all of these previous lines of research, this research project tested the Pygmalion Effect and its influence on the grading and gender assignment on spelling and essay tests. We hypothesized that the illegible samples would be graded more harshly than the legible samples and that illegibility would be attributed more to males. We further predicted that the illegible male would have the highest number of errors out of all of the spelling lists and receive the worst grades on the essays.

#### Method

### **Subjects**

8 female elementary teachers from Central Virginia participated in the survey. 3 male and 8 female middle school and high school teachers from Central Virginia participated in the project.

## **Materials**

The subject was given a packet comprised of seven parts- an introduction letter, an instruction sheet, a consent form, two spelling lists, a spelling key, two paragraphs, and a teacher data sheet.

The introduction letter gave preliminary instructions to the participants, which told them to read the instructions and thanked them for their help. The instruction sheet detailed how to complete each part of the packet and where to turn in the completed packet. The consent form requested the subject's signature, which



acknowledged that he/she was aware of what he/she was to do. The teachers detached the consent forms from their packets to ensure anonymity.

The spelling lists contained 20 words, and a spelling key accompanied the lists. Spelling words were chosen which make it difficult for the reader to distinguish some of the letters when written in cursive. Each spelling list contained the same five misspelled words. The only difference on each spelling list was the legibility of the writing sample.

Four handwriting spelling list samples were selected for the project. One legible and one illegible sample from males and females were collected. A legible female spelling list was paired in the packet with an illegible male, and an illegible female spelling list was coupled with a legible male. Only one of these pairings was included in each packet and only two spelling lists were graded. At the bottom of the spelling lists was a space for the number of spelling errors in the list and the gender of the student.

The writing samples were collected in the same manner using weak and strong paragraphs for the conditions. The weak paragraph was designed with poor grammar, no supporting evidence, and vague descriptions of a book. The strong paragraph offered insights into the characters' feelings and gave evidence to support the claims. An illegible and legible sample was collected from both genders for both the weak and strong paragraphs. Also, a typed version of both



paragraphs was included in some of the packets. Each writing sample had space to assign a letter grade.

Five different packets were assembled for the study. Packet A consisted of a female illegible spelling list, a male legible spelling list, the strong, legible female paragraph, and the weak, illegible male paragraph. Packet B included a female, legible spelling list, a maie, illegible spelling list, a strong, illegible female paragraph, and a weak, legible male paragraph. For Packet C, spelling lists came from an illegible female and a legible male, and the writing samples were a weak, legible female paragraph and a strong, illegible male paragraph. Packet D consisted of the female legible spelling list, the male, illegible spelling list, the weak paragraph copied by an illegible female, and a typed version of the strong paragraph. For the last packet E, the female illegible spelling list, the male, legible spelling list, the strong paragraph by a legible male and the typed, weak paragraph were included.

The teacher data sheet asked the teachers questions regarding their grade levels and their individual grading systems for spelling and written tests. To ensure anonymity, the subject wrote his/her gender on the teacher data sheet and detached the consent form from the packet.

# <u>Design</u>

The researchers used a 2 X 2 between subjects design for the spelling lists. The independent variable was the handwriting style,



either illegible or legible. The dependent variables were the number of errors in the spelling lists and the gender of the student.

The written section of the research employed a 2 X 5 between subjects factorial design. The independent variable was the style of handwriting, legible or illegible. This was operationally defined as the grade assigned to the sample.

Both designs were manipulated to test the influence of the handwriting on the grading and the assumed gender of the spelling lists and the writing samples.

#### Procedure

The researchers collected the handwritten spelling lists from a fourth grade classroom in the same vicinity. The researcher handed out a list of 20 words to copy exactly as shown. Five of these words were intentionally misspelled. The fourth graders wrote on the top of the paper their gender for coding purposes. The researchers had eighth graders copy either the weak or strong paragraph in their own handwriting.

The eight samples, four spelling lists and four writing samples, were chosen on the basis of the legibility of the handwriting and assigned a label, such as "illegible female" spelling list or "legible male" strong paragraph. Packets were collated to included a legible and an illegible sample from different genders for both the spelling



and writing samples. Packets were labeled A through E on the back of the teacher data sheet according to what it included as samples.

After gaining principal approval, the packets were randomly distributed to teacher mailboxes or to teachers themselves in schools. Packets were returned to the boxes in the main office of the schools or to the researchers.

For debriefing, the experimenters gave the subjects their phone numbers if the teachers wanted more information concerning the study.

#### Results

Does the legibility of a spelling or writing sample affect the grading and assign a gender to the paper? The purpose of this study is to test the Pygmalion effect to see if handwriting, a personality characteristic, influences the teacher's grading and gender assignment.

As hypothesized, the results show than an illegible spelling test sample was scored as having more errors,  $\underline{M} = 6.4$ , than the paper actually contained. Conversely, legible spelling test samples were scored with fewer errors than they actually contained,  $\underline{M} = 4.4$ .

Insert Figure 1 about here



When comparing essay samples, it was revealed that the legible essays received a mean score of 89.3 while the illegible essays received a mean score of 80.1.

Insert Figure 2 about here

Strong essays in the legible condition received a mean score of 93.8. The same essays in the illegible condition received a mean score of 75.3, showing that appearance played a large role in the papers' scores.

Insert Figure 3 about here

When the strong illegible essays were compared against the weak legible essays, it was shown, as hypothesized, that the appearance of the paper affected the grade it received. The strong illegible essays,  $\underline{M} = 75.3$ , received lower grades than the weak papers in legible handwriting,  $\underline{M} = 82.5$ .

Insert Figure 4 about here

As predicted, the illegible spelling tests samples ( $\underline{M} = 6.4$ ) were thought to have more errors than the legible samples ( $\underline{M} = 4.4$ ),  $\underline{t}(16) = 2.36$ ,  $\underline{p} < .05$ . Also, as predicted, the strong legible essays ( $\underline{M} = 4.4$ ) and  $\underline{M} = 4.4$ .



93.8) received significantly higher scores than the strong illegible essays (M = 75.3),  $\underline{t}(5) = -4.25$ ,  $\underline{p} < .05$ .

Counter to the hypothesis, strong illegible essays ( $\underline{M} = 75.3$ ) did not receive significantly lower scores than the weak legible essays ( $\underline{M} = 82.5$ ),  $\underline{t}(3) = -1.52$ , ns. However, the degrees of freedom was fairly small. Also, counter to the hypothesis, legible essays ( $\underline{M} = 89.3$ ) did not receive significantly higher scores than illegible essays ( $\underline{M} = 80.1$ ),  $\underline{t}(9) = 2.16$ , ns. However, the results were close. Legible essays tended to be graded with better marks than illegible essays, as seen in the mean scores.

#### Discussion

The present data on spelling test samples are congruent with the stated hypothesis. Two spelling tests with identical spelling errors are graded differently based on the handwriting style of the paper. This supports the before stated hypothesis that there is a Pygmalion effect for handwriting. This can be assumed because the results show a significant difference between the number of errors found in an illegible test versus a legible test. It is apparent that something other than the student's ability is affecting their grades. In this situation, we attribute the cause to handwriting.

Another interesting point to be discussed involving the spelling tests samples is the gender attributed to the different handwriting styles. In this study, 84% of those surveyed attributed more errors to the illegible samples than to the legible samples. Also, 100% of



elementary school teachers surveyed attributed illegible handwriting to a male, even if the paper was actually written by a female Along these same lines, the male illegible spelling test was attributed to a male 100% of the time. Thus, one can conclude that since illegible samples received lower scores and illegible samples tended to be attributed to males, the grades of male students may suffer due to the Pygmalion Effect.

The present data on essay samples both support and reject the null hypotheses. When comparing the strong legible essays to the strong illegible essays, a significant difference in grades was observed. This means that two papers with the exact same content can receive different grades simply based on the handwriting style. In face, the difference was as much as three letter grades. Several subjects even refused to grade the strong illegible essay because they found it "too difficult to read". This shows that something other than the student's ability is having a strong effect on the grades, thus, again supporting the Pygmalion Effect.

Two situations where the data were not found to be significant were when the illegible essays were compared to legible essays and when the strong illegible essays were compared to the weak legible essays. When looking at the essays, regardless of content, it was hypothesized that the legible papers would receive significantly higher grades than the illegible samples. Though the results were not significant, the legible samples did receive almost 10 points higher on



average than the illegible samples. This can be up to two letter grades in difference and is something teachers need to be aware of when grading students' papers.

One reason the results might not be statistically significant is that judgment on the researchers part of "legible" and "illegible" samples were subjective. Some papers were hard to determine in terms of legibility, and thus might have influenced the study. Also, different teachers might have different tolerance levels for handwriting styles. It is believed that these explanations also explain why the results for strong illegible versus weak legible were not significant, although the weaker paper received better grades, probably due to appearance. In the strong illegible condition, the female sample was extremely illegible. this sample in particular several times received an "F" because of its appearance while the male sample was easier to read. The male sample in this category increased the mean and could have caused the data to be not significant.

No statistical data was run on the typed samples due to lack of enough packets returned from the subjects. However, it is intresting to note that when a subject graded both a typed essay and a handwritten essay, the typed version always was given a higher score, regardless of content.

In conclusion, it can be noted from these findings that teachers do possess a bias towards grading based on the handwriting style.

There is strong evidence for a Pygmalion Effect in grading which



needs to be considered by teachers. Students should not be penalized on their spelling or essay tests based on their handwriting. While, it has been noted by the researchers that differences were possibly due to different teacher attitudes, it is apparent that biases exist. These biases need to be addressed and accounted for in the classroom. If computers are available to students with illegible handwriting, teachers can work to combat their handwriting biases. If not, teachers might need to emphasize handwriting as a subject of the curriculum beyond the fourth grades or alter their ways of giving written tests to oral tests.

In the future, a study with more subjects could be attempted as well as a study on the effect based on the gender of the teachers. A more extensive study looking at typed versus hendwritten tests could be pursued. Finally, it must be taken into consideration that our view of legible and illegible was subjective, and a more collaborative effort to determine the legibility of samples should be addressed.



### References .

- Bangert-Drowns, R. (1989). Research on wordprocessing and writing instruction. (Report No. IR 014 276). San Francisco, CA: American Educational Research Association. (Eric Document Reproduction Service No. ED319 359).
- Chase, C. (1986). Essay test scoring: interaction of relevant variables. <u>Journal of Educational Measurement</u>. <u>23(1)</u>, 33-41.
- Curran, T. et. al. (1985). Language arts: Exceptional child education curriculum K-12. (Report No. EC 211 263). Louisville, KY: Jefferson County Public Schools. (ERIC Document Reproduction Service No. ED 300 968).
- Diffily, C. & Fleege, P. (1992). Portfolio assessment: Practical training in evaluating the progress of kindergarten and primary grade children in individualized portfolio formats. (Report No. PS 021 115). Houston, TX: Annual Conference of the Texas Association of the Education of Young Children. (ERIC Document Reproduction Service No. ED 354 082).
- Eames, K., and Lowenthal, K. (1990). Effects of handwriting and examiner's expertise on assessment of essays. <u>Journal of Social Psychology</u>, 130(6), 831-833.



- Ediger, M. (1988) Reading and the language arts. (Report No. CS 009 377). Unpublished paper. (ERIC Document Reproduction Service No. ED 300 769).
- Emerling, F. (1991). Identifying ethnicity and gender from anonymous essays. <u>Community College Review</u>, <u>19</u>(3), 29-33.
- Hutslar, S. (1977). <u>Is the expectancy effect operating in my gym?</u>. (Report No. SP 019 427). Unpublished paper. (ERIC Document Reproduction Service No. ED 211 534).
- Johnson, Terry. (1987) The Writing Lesson. <u>Australian-Journal-of</u>
  Reading, 10(1), 45.
- Marrou, J. (1982). TABS essential writing objectives: Some practical suggestions for the elementary social studies teacher.

  <u>Southwestern Journal of Social Education</u>, 2, 3-9.
- McCormick, T., and Noreiga, T. (1986). Low versus high expectations: A review of teacher expectancy effects on minority students. <u>Journal of Educational Equity and Leadership</u>, 3, 224-234.
- Merllie, O. (1990). The sex of writing: A note on the social perception of femininity. Actes de la recherche en sciences sociales, 83, 40-51.



- Michlin, M., Piche, G., Rubin, D., & Sullivan, A. (1977). Effects of dialect-ethnicity, social class, and quality of writer composition on teacher's subjective evaluations of children. Communication Monographs, 1, 60-72.
- Nava, J. & Loyd, B. (1992). An investigation of achievement and nonachievement criteria in elementary and secondary school grading. (Report No. TM 018 477). San Francisco, CA:

  Annual Meeting of the American Education Research
  Association. (ERIC Document Reproduction Service No. ED 346 145).
- Peterson, E. & Lou, W. (1991). The impact of length on handwritten and wordprocessed papers. (Report No. CS 213 206).

  Portland, OR: Annual Meeting of the Oregon Educational Research Association. (ERIC Document Reproduction Service No. ED 343 125).
- Raudenbush, S. (1984). Magnitude of teacher expectancy effects on pupil IQ as a function of the credibility of expectancy induction:

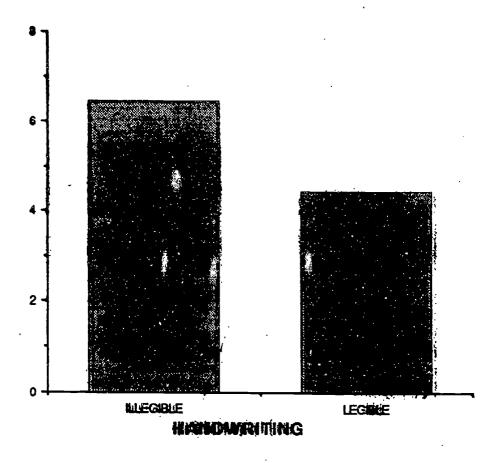
  synthesis of findings from 18 experiments. Journal of

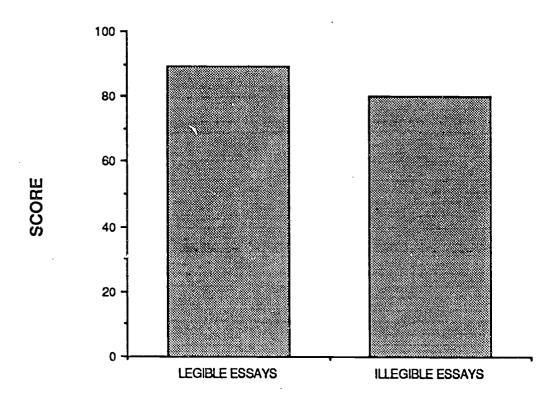
  Educational Psychology, 1, 85-97.
- Robinson, S. & Hopper, M. (1990). <u>Technical manual: Handwriting</u> research corporation. (Report No. CS 212 629). Boston, MA: Annual Meeting of the American Psychological Association.



- (ERIC Document Reproduction Service No. ED 327 860).
- Rosenthal, R. (1987). Pygmalion effects: Existence, magnitude, and social importance. Educational Researcher, 9, 37-41.
- Rosenthal, R. (1973). On the social psychology of the self-fulfilling prophecy: Further evidence for Pygmalion effects and their mediating mechanisms. (Report No. CS 002 018). New Brunswick, NJ: Rutgers University. (ERIC Document Service No. ED 109 617).
- Sloan, C. & McGinnis, I. (1982). Effect of Handwriting on Teacher's Grading of High School Essays. <u>Journal of the Association for the Study of Perception</u>, 17, 15-21.
- Sweedler-Brown, C. (1991). Computers and Assessment: The Effects of Typing Versus Handwriting on the Holistic Scoring of Essays. <u>Journal of Research and Teaching Development in Education</u>, 26(1), 24-29.

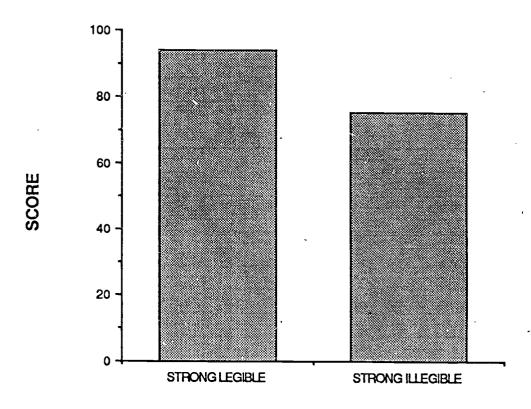




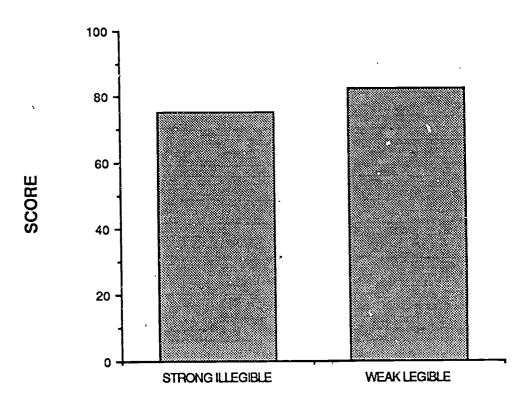


**HANDWRITING** 





**HANDWRITING** 



**HANDWRITING** 

30

Appendix



# Spelling List Given To Fourth Graders

(15) before (1) amount (16) bit (2) will (3) brown (17) patient (4) neice (18) handel (5) growl (19) within (6) every (20) twig (7) pasttime (8) board (9) coat (10) crocuses (11) blowing (12) freind (13) neighborhood



(14) wreck

# Items Included in

Packets



Dear Teacher,

We are fifth year education students at the University of Virginia, currently working on our fifth year project. Hopefully, your principal has spoken with you regarding participation. We need your support. You can help by filling out the packet of information enclosed.

We would love to have you participate in our project because its success depends on the help of teachers. First, read the instructions on the front page of the packet and follow them carefully. When you have completed the packet, please return them to the boxes in the main office of your school. We ask that you complete this by March 18th, so we can begin tabulating the results. There will be a separate box for both the consent form and the packet itself so that your name will never appear on the results.

We would greatly appreciate your help. If you have any questions regarding how to complete the packet, please do not hesitate to call either Jamie Webb at 293-4201 or Jenifer Sprouse at 978-4682.

Thank you again for your support and cooperation.

Sincerely,

Jamie Webb

gamie Webb

Jenifer Sprouse



### INSTRUCTIONS

Please complete the survey in the following order:

- (1) read and sign the consent form attached to the survey
- (2) grade the spelling tests labeled "SAMPLE" using the key for guidance. For each sample, please write down the number of spelling errors and the gender of the sample is by writing either "male" or "female" in the blank. Do not count a word as incorrect if it begins with a capital letter.
- (3) grade the essays tests according to your own philosophy on grading essay tests. Then, assign a grade letter to the sample (A+ to F). Also, please write what the gender of the student is based on the sample.
- (4) complete the last page of the survey, which asks for your grade level, your gender, and brief descriptions of how you grade essays and spelling tests. If one area is not applicable to your current grade level, you may either write "not applicable" or tell us how you would grade that area if it was included in your grade level. YOUR NAME WILL NOT BE ON THE SURVEY!
- (5) detach the consent form from the survey and place the consent form in the box labeled "Consent Forms for UVA Study" and the survey in the box titled "Surveys for UVA Study".

Thank you again for your participation in our study!

Jamie Webb

Jenifer Sprouse



#### **Consent Form**

(1) I understand that for this project I will read short passages and look at spelling lists, which will take approximately ten minutes. The last page of your packet refers to the current teaching assignment information.

(2) I understand that my participation in this study is completely voluntary. I understand that I am free to withdraw from participation at any time without explaination and have the option of withdrawing my data from the project.

(3) I understand that Jamie or Jenifer will answer any questions I have regarding my participation. I also understand that if I desire information in the future concerning the project, I can contact either Jamie Webb at 293-4201 or Jenifer Sprouse at 978-4682.

(4) I understand that the information I provide for the project will be kept strictly confidential, and that any report of the project will not identify me personally in any way.

Date	Signature of Participant	Printed Name



#### SPELLING TEST KEY

- (1) amount
- (2) will
- (3) brown
- (4) niece
- (5) growl
- (6) every
- (7) pastime
- (8) board
- (9) coat
- (10) crocuses
- (11) blowing
- (12) friend

- (13) neighborhood
- (14) wreck
- (15) before
- (16) bit
- (17) patient
- (18) handle
- (19) within
- (20) twig



### **Teacher Data Sheet**

(1) Teacher's gender
(2) Teacher's grade assignment for current year
(3) Describe briefly how you normally assess the following areas in the day-to-day routine
of your classroom. For example, do you use a grading scale and what constitutes various
letter grades for you in both essay and spelling tests? What are some characteristics of
good essays?
SPELLING TESTS:
-
ESSAYS:



Packet A



My favorite book is likere the prid Ferm Branco At was The main characters are Old Dan, Little ann and Billy. Old Dan and Little ann are dogs and they are retry of liked this book. I thought they were neat and want make good sets. I wish of had pets like them. Even in what the end was end i liked it

legible female weak paragraph

4

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IMS illegible male strong paragraph

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### SAMPLE y

(1) amount	(13) Mighton hood
(2) will	(14) Wilch
(3) brown	(15) before
(4) neice	(16) ME
(5) growl	(17) patient
(6) every	(18) handel.
(7) pastitine	(19) Luchim
(8) Vaard	(20) tulg
(9) Coat	
(10) Crocuses	
(11) flouring	
(12) fruind	
GENDER OF STUDENT:	
NUMBER OF CREETING FRR	NDO-

Illegible female spelling list

#### SAMPLE

- (1) amount
- (2) Will
- (3) brown
- (4) Meile
- (5) growl
- (6) WY
- (7) pastime
- (8) board
- (9) wat
- (10) crocuss
- (11) blowing
- (12) followed

**GENDER OF STUDENT:** 

**NUMBER OF SPELLING ERRORS:** 

legible male spelling list

(13) neighborchood

(14) wack

(15) lefore

(16) but

(17) patient

(18) handel

(19) within

(20) Twy

Packet B



legible male strong paragraph

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My forwrite book is rubore the red ferring for main the main Characters are addition, little Arm and Billy.

Ald Don and little Arm are dogs and they are ruby I liked this brook. I thought thou duere meet and rusuld make good pets. I ruish I had pets like then.

Even though the end russ sad

illegible female weak paragraph

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- (1) amount
- (2) will
- (3) brown
- (4) neich
- (5) growl
- (7) pasttime
- (8) found
- (9) coat
- (10) chowing
- (12) freird

**GENDER OF STUDENT:** 

**NUMBER OF SPELLING ERRORS:** 

legible female spelling list

(15) vefore

(16) vik

(17) patient

(18) handel

(19) within (20) twig

### SAMPLE :

- (1) anount
- (2)

- (11) powers (12) I related

<b>GEND</b>	ER	OF	STL	JDI	EN	T:
		$\mathbf{v}$				

**NUMBER OF SPELLING ERRORS:** 

illegible male spelling list

Packet C



The vest book that I have read is Island of the Blue Dolphin by Scott O'Dell. The story is about a girl marned harana, an indian give who gets left alone for eighteen rear . Karana is left alone on an is in with me incaround to dale or may with Anstead or arring up or feeling sorry harana builds a Lay of admire her itremoth, Harana shows we how to make the est of every situation, even a

legible female strong paragraph

50

both where the sold from sold from and they are what they are the are they are the are they are the are the are they are the are they are they are the are they are the area.

illegible male weak paragraph

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### SAMPLE

- (1) amount
- (2) Will
- (3) brown
- (4) Meice
- (5) growl
- (6) Wy
  - (7) pastime
  - (8) board
  - (9) wat
  - (10) Crocus
  - (11) blowing
  - (12) filling

**GENDER OF STUDENT:** 

**NUMBER OF SPELLING ERRORS:** 

- (13) neighborhood
- (14) week
- (15) before
- (16) lut
- (17) patient
- (18) handel.
- (19) within
- (20) Turg

## SAMPLE,

(1) amount	(13) Mighborhood
(2) will	(14) weck
(3) brown	(15) before
(4) neice	(16)
(5) grow	(17) patient
(6) energy	(18) handel
(7) pasttime	(19) Luikin
(8) baard	(20) tulg
(9)	
(10) Crocuses	
(11) flouling	
(12) freemd	
GENDER OF STUDENT:	
NUMBER OF CREETING FROM	NDC-



Packet D



illegible female strong paragraph

My favorite book is <u>Where the Red Fern Grows</u>. It was written by Wilson Rawls. The main characters are Old Dan, Little Ann and Billy. Old Dan and Little Ann are dogs and they are why I liked this book. I thought they were neat and would make good pets. I wish I had pets like them. Even though the end was sad I liked it.

typed weak paragraph

### SAMPLE

- (1) amount
- (2) will
- (3) brown
- (4) reich
- (5) growl
- (6) every
- (7) jasttime
- (8) found
- (9) coat
- (10) crocuses
- (11) Howing
- (12) freird

**GENDER OF STUDENT:** 

**NUMBER OF SPELLING ERRORS:** 

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- (14) week
- (15) before
- (16) vit
- (17) patient
- (18) handel
- (19) within
- (20) twig



### SAMPLE

- (1) anount
- (2)
- (3) Brown
- (4) Neice

- (12) I retrict

- (13) Neighkowson (14) Wreek (15) Befole

- (16)

- (20)

**GENDER OF STUDENT:** 

**NUMBER OF SPELLING ERRORS:** 



# Packet E



E

LMW

My favorite book is Where the Red Fern Drows It was written by Wilson Rawls. The main charactors are Old Dan, Little ann and Billy Old Dan and Sittle ann are dogs and they are why I liked this book of thought they were next and would make good pots of wish I had pets like them, Even though the end was sad of liked it.

legible male weak paragraph

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The best book that I have ever read is <u>Island of the Blue Dolphins</u> by Scott O'Dell. The story is about a girl named Karana, an indian girl who gets left alone for eighteen years. Harana is left alone on an island with no one around to talk with or to play with. Instead of giving up or feeling sorry for herself Karana builds a shelter, makes weapons, finds food and fights off tears everyday. I admire her strength. Karana shows us how to make the best of every situation, even a bad one

typed strong paragraph



### SAMPLE

- (1) amount
- (2) Will
- (3) brown
- (4) Meice
- (5) growl
- (6) Wy
- (7) pasttime
- (8) board
- (9) wat
- (10) Crocus
- (11) blowing
- (12) fillid

**GENDER OF STUDENT:** 

**NUMBER OF SPELLING ERRORS:** 

(13) neighborhood

(14) week

(15) before

(16) luct

(17) patient

(18) handel

(19) within

(20) Twy

### SAMPLE .

- (1) amount
- (2) will
- (3) brown
- (4) neice
- (5) grown
- (6) every
- (7) pasttine
- (8) Vaard
- (9)
- (10) CHOCHOLD
- (11) flowling
- (12) fuerno

**GENDER OF STUDENT:** 

**NUMBER OF SPELLING ERRORS:** 

- (13) Nighton hood
- (14) YUCK
- (15) before
- (16) Jule
- (17) patient
- (18) handet
- (19) Luckin
- (20) tulg